THE UNIVERSITY of NEW ORLEANS

UNDERGRADUATE/GRADUATE CATALOG 2006–2007

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2006-2007 University Calendar

FALL 2006

AUGUST 2006

August 14-25 CENTRALIZED ENROLLMENT SERVICES (location to be announced) New and remake ID cards available in (location to be announced) during same hours as Centralized Enrollment Services.

August 14 Academic appointment begins

August 15 Walk-in Provisional Admission begins.

August 18 LATE REGISTRATION.

$30.00 late fee in effect for Continuing students.

New and remake ID cards available in (location to be announced) during same hours as Centralized Enrollment Services.

Final date to file an Application for Admission. Only applications for re-entry, non-degree, and special student status accepted after this date.

August 19 Saturday classes begin.

August 21 Regular classes begin, except Saturday classes – see August 19.

New and remake ID cards available in (to be announced) from 8:00 A.M.-4:30 P.M. Monday through Friday for the rest of the semester.

$30.00 late fee in effect for all students.

New and remake ID cards available in Library during same hours as Centralized Enrollment Services.

August 25 Deadline to pay fees for LATE REGISTRATION (4:30 P.M.).

Deadline to pay fees for Final Registration/Schedule Adjustment (4:30 P.M.).

Final date to add courses, change sections, or change from audit to credit.

Deadline for undergraduates who received "incompletes" in the previous Spring semester or Summer session to complete course work. "I" grades are changed to "F" after this date.

Final date to drop course(s) and receive 100% refund. After this date, there is no refund for drops.

Final date to resign (withdraw from all courses) and receive 100% refund (less $50 and appropriate non-refundable fees).

Final date to receive a parking decal refund.

Deadline to file an Application for Degree and to pay graduation fees for December Commencement.

August 28 WebSTAR active for dropping courses.

New and remake ID cards available in LA 138 from 8:30 A.M.-4:00 P.M. Monday through Friday (until 6:00 P.M. on Tuesdays) for the rest of the semester.

SEPTEMBER 2006

September 1 Last day for textbook refunds.

September 4 Labor Day Holiday.

September 8 Final date to drop course(s) or resign and not have course(s) recorded.

From September 9 through November 6 an automatic "W" will be recorded for all courses dropped.

September 11 Final date to change from credit to audit.

September 15 Deadline to convert "I" (incomplete) to letter grades earned during Spring 2006, Summer 2006 and Fall 2006.

September 18 50% REFUND. Final date to resign (withdraw from all courses) and receive 50% refund (less appropriate nonrefundable fees).

OCTOBER 2006

October 1 Extended Payment Plan Option (EPPO) final

payment deadline (4:30 P.M.).

October 2 25% REFUND. Final date to resign (withdraw from all courses) and receive 25% refund (less appropriate nonrefundable fees).

October 5, 6 Mid-semester break.

October 7 Saturday classes meet.

October 9-13 Mid-semester examinations.

NOVEMBER 2006

November 1 REGISTRATION for 2007 Spring Semester begins.

November 6 Final date to drop course(s) or resign from the University. Resignations (withdrawal from all courses) must be completed through WebSTAR on or before November 6.

November 15 Application for Admission deadline for 2007 Spring Semester without paying late fees

November 18 Last day of Saturday classes.

November 23-26 Thanksgiving Holidays.

DECEMBER 2006

December 1 Last day of classes.

December 2 Final examinations begin.

December 8 Final examinations end.

December 14 Final grades available on WebSTAR.

December 15 Academic appointment ends.

December 15-16 COMMENCEMENT (times and locations to be announced)

NOVEMBER 2006

November 1 2007 Spring REGISTRATION begins. See page 10 for S and Web-STAR hours of operation.

Fee payment by web, mail, phone, or in person at the Bursar's Office begins.

S and Web-STAR are available 24 hours a day, seven days a week, except for scheduled maintenance or on other designated dates.

November 11 (tentative) Get to Know UNO Program.

November 15 Application for Admission deadline for 2007 Spring Semester without paying late fee.

JANUARY 2007

January 1 FASFA forms available on the web.

January 8-22 CENTRALIZED ENROLLMENT SERVICES (Registration, Bursar, Financial Aid, Parking Decals and I.D. Cards) available in the University Center.

New and remake ID cards available in University Center Ballroom during the same hours as Centralized Enrollment Services.

January 8 Academic appointment begins.

January 10 Walk-in Provisional Admission begins.

January 11 LATE REGISTRATION begins.

$30.00 late fee in effect for Continuing Students

New and remake ID cards available in the University Center Ballroom, during the same hours as Centralized Enrollment Services.

January 13 Saturday classes begin.

January 15 Martin Luther King Holiday–University Closed.

January 16 $30.00 late fee in effect for ALL STUDENTS.

Regular classes begin, except Saturday classes–see January 13.

New and remake ID cards available in the University Center Ballroom, during the same hours as Centralized Enrollment Services.

Scholarship Application Deadline.

January 22 Final date to file an Application for Admission (1:00 P.M. deadline).

Deadline to pay fees for FINAL REGISTRATION/SCHEDULE ADJUSTMENT (4:30 P.M.).

WEBSTAR turned off at 4:30 P.M.

Final date to add courses, change sections, or change from audit to credit.

Final date to drop course(s) and receive 100% refund. After this date, there is no refund for drops.

Final date to resign (withdraw from all courses) and receive 100% refund (less $50 and any appropriate nonrefundable fees). (WEBSTAR turned off at 4:30 P.M.)

Deadline to file an Application for Degree and to pay graduation fees for May Commencement.

Deadline for undergraduates who received "incompletes" in the previous FALL semester to complete course work. "I" grades are changed to "F" after this date.

Final date to receive a parking decal refund.

New and remake ID cards available in LA 138 from 8:30AM-4:00PM Monday through Friday (until 6:00PM on Tuesdays) for the rest of the semester.

January 23 Web-STAR active for dropping courses.

January 26 Last day for textbook refunds.

FEBRUARY 2007

February 2 Final date to drop course(s) or resign and not

have course(s) recorded.

From February 3 through April 10 an automatic "W" will be recorded for all courses dropped.

February 8 Final date to change from credit to audit.

February 17-21 Mardi Gras Holidays–no classes.

February 20 University Closed–Mardi Gras Holiday.

February 15 50% REFUND. FINAL DATE TO RESIGN (withdraw from all courses) and receive 50% refund (less appropriate non-refundable fees).

MARCH 2007

March 1 Extended Payment Plan Option (EPPO) remaining balance due.

25% REFUND. FINAL DATE TO RESIGN (withdraw from all courses) and receive 25% refund (less appropriate non-refundable fees).

March 12-16 Mid-semester examinations.

APRIL 2007

April 2-8 Spring Break – no classes.

April 6 University Closed–Holiday

April 9 REGISTRATION for 2007 Summer Session and 2007 Fall Semester begins.

April 10 Final date to drop course(s) or resign from the University. Resignations (withdrawal from all courses) must be completed through Web-STAR on or before this date.

April 28 Last day of Saturday classes.

MAY 2007

May 1 Application for Admission deadline for 2007 Summer Session without paying late fees.

May 4 Last day of classes.

May 5 Final examinations begin.

May 11 Final examinations end.

May 16 Final grades available on Web-STAR.

May 18-19 COMMENCEMENT (time and location to be announced).

Registration for Intersession 2007

May 18 Academic appointment ends.

May 21 Intersession 2007 classes begin.

Late Registration for Intersession 2007.

JUNE 2007

June 1 REGISTRATION ends for Summer 2007 Session. Phase I remains open for Fall 2007 Semester.

June 5 Intersession 2007 classes end.

June 6 Intersession 2007 final examinations.

INTERSESSION 2007

MAY 2006

May 18 Admission/ Registration begins

May 21 Classes begin.

Late fees applies.

May 22 Final day for adding/ changing courses.

Late fees applies.

May 25 Last day to resign.

JUNE 2007

June 5 Classes end.

June 6 Final exams.

SUMMER 2007

APRIL 2007

April 9 2007 Summer and Fall REGISTRATION begins. Refer to Bulletin for WebSTAR hours of operation.

Fee payment by mail, web, or in person at Bursar's Office begins. WebSTAR is available 24/7 except during scheduled maintenance or on designated dates.

MAY 2007

May 1 Application for Admission deadline for 2006 Summer Session without paying late fee.

May 18-19 COMMENCEMENT for Spring 2007 (tentative).

May 22 Postmark deadline for mailing payment of tuition/fees.

JUNE 2007

June 4 2007 Summer REGISTRATION ends (WebSTAR registration not available).

CENTRALIZED ENROLLMENT SERVICES (Registration, Bursar, Financial Aid, Parking, I.D. Cards open) in the (to be announced).

Deadline to pay fees for REGISTRATION (6:30 P.M.)

WebSTAR not accessible after 6:30 P.M.

Academic appointments begins.

June 5 CENTRALIZED ENROLLMENT SERVICES including Bursar and Financial Aid open.

New and remake ID cards available in Library during same hours as Centralized Enrollment Services is open.

LATE REGISTRATION, SCHEDULE ADJUSTMENTS AND FEE PAYMENT reopens on

WebSTAR (6:00 p.m.).

June 6 Walk-in Provisional Admission begins.

Schedule adjustment for students who completed Registration & Fee Payment (till 6:00 p.m.).

$30.00 late fee in effect for Continuing Students.

New and remake ID cards available in Library during same hours as Centralized Enrollment Services.

June 7 Classes begin.

$30.00 late fee in effect for all students.

June 11 Final date to file an Application for Admission for the 2007 Summer Session.

Deadline to pay fees for FINAL REGISTRATION/SCHEDULE ADJUSTMENT (4:30 P.M.).

WebSTAR not accessible after 4:30 P.M.

Final date to add courses, change sections, or change from audit to credit.

Final date to drop course(s) and receive 100% refund. After this date, there is no refund for drops.

Final date to resign (withdraw from all courses) and receive 100% refund (less $50 and appropriate non-refundable fees).

Final date to receive a parking decal refund.

Deadline to file an Application for Degree and to pay graduation fees for Summer Graduation.

June 12 WebSTAR active for dropping courses (8:30 A.M.).

New and remake ID cards available in LA 138 for the remainder of the semester.

June 14 Last day for textbook refunds.

June 15 Final date to drop course(s) or resign and not have course(s) recorded.

From June 17 through July 17 an automatic "W" will be recorded for all courses dropped.

June 18 Final date to change from credit to audit.

June 20 50% REFUND. Final date to resign (withdraw from all courses) and receive 50% refund (less appropriate non-refundable fees).

June 26 25% REFUND. Final date to resign (withdraw from all courses) and receive 25% refund (less appropriate non-refundable fees).

JULY 2007

July 1 Application for Admission deadline for 2007 Fall Semester without paying late fees.

July 4 Independence Day Holiday.

July 16 Final date to drop course(s) or resign from the University. Resignations (withdrawal from all courses) must be completed through WebSTAR on or before July 16.

July 26 Last day of classes.

July 27 Reading Day. Group examinations for English 1158 only

July 28 Final examinations begin.

July 30 Final examinations end.

AUGUST 2007

August 2 Academic appointments end.

August 3 Final grades available on WebSTAR.

August 8 Official Degree Conferral date for Summer 2006 degree completers.

MINI SESSION I 2007

JUNE 2006

June 4 Academic appointments begin.

June 5 LATE REGISTRATION begins 6:00 p.m.

June 7 Classes begin.

June 8 Final date to add courses or change sections.

Final day to drop course(s) and be eligible for a 100% refund, after this date there is no refund for drops.

Final day to resign (withdraw from all courses) and be eligible for a 100% refund (less $50 and appropriate nonrefundable fees).

June 11 Final date to drop courses or resign and not have courses recorded.

From June 12-June 21, an automatic "W" is recorded for all courses dropped.

June 13 Final day to resign (withdraw from all courses) and be eligible for a 50% refund (less appropriate non-refundable fees).

June 22 Final date to drop courses or resign. Resignations (withdrawal from all courses) must be completed through WebSTAR on or before June 21.

June 28 Last day of classes.

June 29 Reading Day. No examinations given this date

June 30 Final Examinations.

JULY 2007

July 3 Academic appointments end.

MINI SESSION II 2007

JUNE 2006

June 6	LATE REGISTRATION continues.

JULY 2006

July 2	Academic appointments begin.
July 3	Classes begin.
July 4	Independence Day Holiday.
July 5	Final date to add courses or change sections.
	Final day to drop course(s) and be eligible for a 100% refund, after this date there is no refund for drops.
	Final day to resign (withdraw from all courses) and be eligible for a 100% refund (less $50 and appropriate nonrefundable fees).
July 6	Final date to drop courses or resign and not have courses recorded.
	From July 8-July 20, an automatic "W" will be recorded for all courses dropped.
July 19	Final date to drop courses or resign. Resignations (withdrawal from all courses) must be completed through WebSTAR on or before July 19.
July 25	Last day of classes.
July 26	Reading Day.
July 27	Final examinations.

AUGUST 2007

August 2	Academic appointments end.

FALL 2007

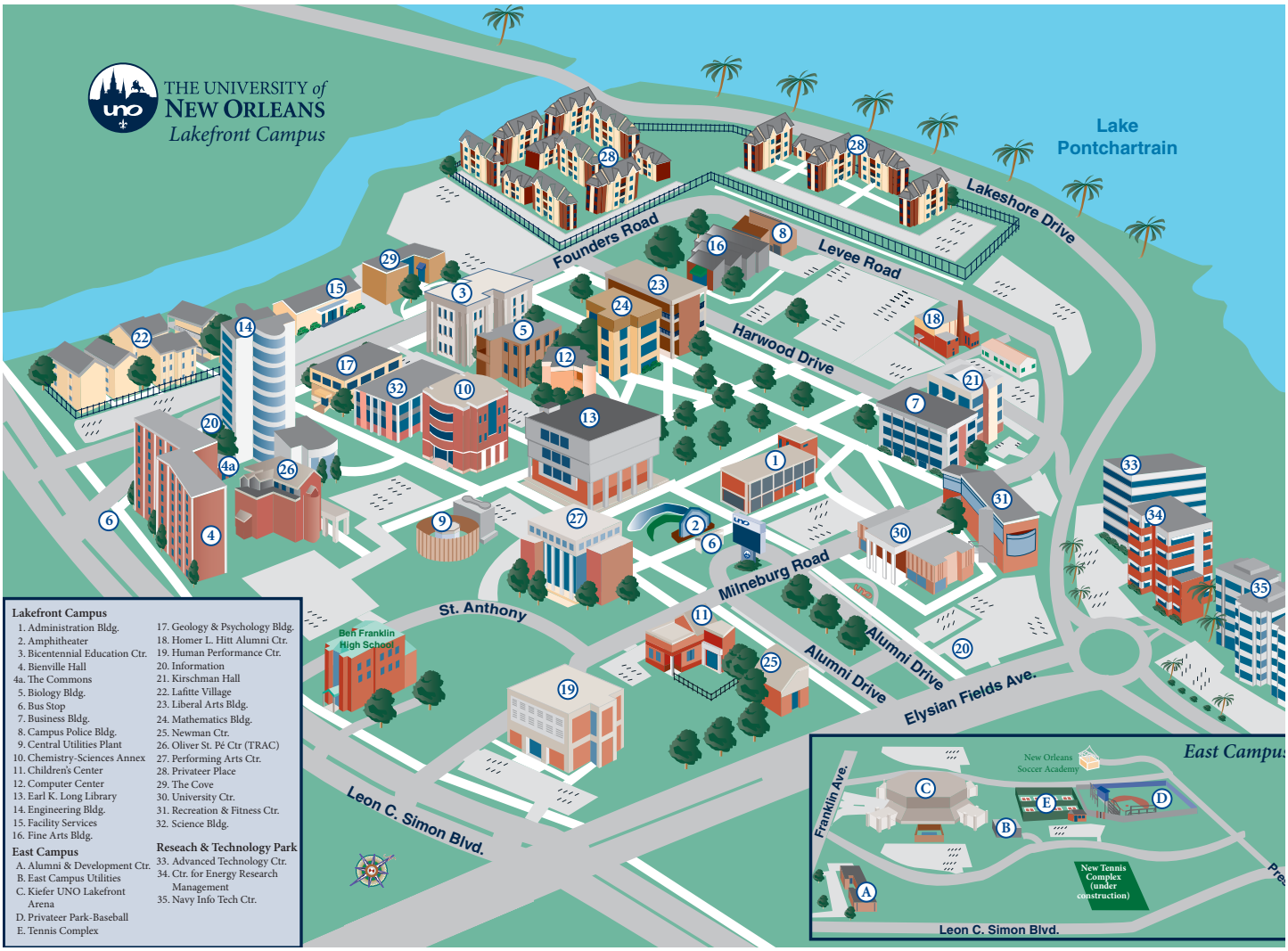
APRIL 2007

April 9	2007 FALL REGISTRATION begins. Fee payment by web, mail, or in person at the Bursar's Office begins. WebSTAR is available 24/7 except for scheduled maintenance or on other designated dates.

JULY 2007

July 1	Application for Admission deadline for 2007 Fall Semester without paying late fees.
July 27	Account Statements e-mailed to those who have registered through this time.

University Map



University

The University of New Orleans (UNO) was established by the Louisiana Legislature in 1956 to bring public-supported higher education to the state's largest urban community. The Board of Supervisors of the Louisiana State University acquired a 195-acre site on the southern shore of Lake Pontchartrain within the City of New Orleans. A number of the buildings remaining on the property from its prior use as a United States Navy air station were renovated for academic purposes during the winter and spring of 1958. In September 1958, Louisiana State University in New Orleans, which was renamed the University of New Orleans in 1974, opened to nearly 1,500 freshman students, more than twice the number anticipated. Only a freshman curriculum was offered the first year. In succeeding years, additional levels of curricula were developed and offered so that by 1962 the University was operating as a full four-year, degree-granting institution. Programs of study are now offered through six academic undergraduate colleges: Business Administration, Education and Human Development, Engineering, Liberal Arts and Sciences – in addition to the Graduate School. Educational extension, professional development, and international education activities (including credit and non-credit courses) are offered through Metropolitan College.

As a member of the Louisiana State University System, UNO has grown to become a comprehensive urban university that provides academic support for the further enhancement of the educational, economic, cultural, and social well-being of the culturally rich and diverse New Orleans metropolitan area. To that end, the University's community involvement has developed mutually beneficial affiliations with public and private bodies whose goals are consistent with and supportive of the University's teaching, research, and community service role. The University promotes both technological and academic engagements that connect the institution, its faculty, and its students to the community. Such affiliations with public schools, other local universities, governments, foundations, businesses, and civic groups enrich opportunities for learning and creative discovery, while enhancing opportunities for career and community growth. Graduate study and research are also integral to the University's purpose. Doctoral programs focus on fields of study in which UNO has the ability to achieve national competitiveness and/or respond to specific state and regional needs.

UNO is a selective admissions university* serving approximately 12,000 students, of whom nearly three-fourths are undergraduates and a fourth, are graduate students in both Master's and Doctoral programs. UNO offers more than one hundred degree programs to a student body that is broadly representative of local, national, and international diversity. The University serves students of traditional age and also older students whose experience and motivation prepare them for programs of study leading to degrees as well as to professional and personal advancement.

*UNO is classified as a Southern Regional Education Board Four-Year II institution, as a Carnegie Doctoral/Research Intensive University, and as a Southern Association of Colleges and Schools Level VI institution.

Academic Programs

UNO offers the following degrees and major programs:

Bachelor of Arts

Major	**College**
Anthropology	Liberal Arts
Art (Art History and Studio Art)	Liberal Arts
Biological Sciences	Sciences
Chemistry	Sciences
Film, Theatre, Communication Arts	Liberal Arts
Elementary and Secondary Music Education	Education
English	Liberal Arts
French	Liberal Arts
Geography	Liberal Arts
History	Liberal Arts
International Studies	Liberal Arts
Music	Liberal Arts
Philosophy	Liberal Arts
Political Science	Liberal Arts
Secondary English Education	Education
Secondary Social Science Education	Education
Sociology	Liberal Arts
Spanish	Liberal Arts
Women's Studies	Liberal Arts

Bachelor of General Studies

Bachelor of Science

Major	**College**
Accounting	Business Administration
Biological Sciences	Sciences
Business Administration	Business Administration
Business Administration *(Computer Science Option)*	Business Administration
Chemistry	Sciences
Civil Engineering	Engineering
Computer Science	Sciences
Early Childhood Education	Education
Earth and Environmental Science	Sciences
Electrical Engineering	Engineering
Elementary Education	Education
Entrepreneurship	Business Administration
Finance	Business Administration
Hotel, Restaurant and Tourism Administration	Business Administration
Management	Business Administration
Marketing	Business Administration
Mathematics	Sciences
Mechanical Engineering	Engineering
Naval Architecture and Marine Engineering	Engineering
Physics	Sciences
Psychology	Sciences
Secondary Biology Education	Education
Secondary Chemistry Education	Education
Secondary Earth Science Education	Education
Secondary Math Education	Education
Urban Studies and Planning	Urban Studies

Graduate Certificate

Gerontology

Master of Arts

Arts Administration
Education
English
English Teaching
Geography
History
History Teaching
Political Science
Romance Languages
Sociology

Master of Arts in Science Teaching

Master of Business Administration

Master of Education

Counselor Education
Curriculum and Instruction
Educational Administration
Special Education

Master of Fine Arts

Film, Theater and Communication Arts
Fine Arts

Master of Music in Music

Master of Public Administration

Master of Science

Accounting

Accounting (Taxation Option)
Applied Physics
Biological Sciences
Chemistry
Computer Science
Engineering Science
Engineering Management
Environmental Engineering
Earth and Environmental Sciences
Financial Economics
Health Care Management
Hospitality and Tourism
Mathematics
Physics
Psychology
Urban Studies

Master of Urban and Regional Planning

Doctor of Philosophy

Applied Biopsychology
Applied Developmental
Psychology
Chemistry
Conservation Biology
Counselor Education
Curriculum and Instruction
Educational Administration
Engineering and Applied Science
Financial Economics
Political Science
Special Education
Urban Studies

Pre-professional Programs

UNO has programs designed to provide college training for those students interested in gaining admission to one of the professional schools. Pre-professional programs are offered in the following areas:

Cardiopulmonary Science
Dental Hygiene
Dentistry
Medical Technology
Medicine
Nursing
Occupational Therapy
Ophthalmic Medical Technology
Pharmacy
Physical Therapy
Physician's Assistant
Rehabilitation Counseling
Veterinary Medicine

Administrators

Board of Supervisors

	Present Service Expires
Rod West, New Orleans, *Chairman*	June 1, 2012
Jerry E. Shea, Jr., New Iberia, *Chairman-Elect*	June 1, 2010
Dr. Jack A. Andonie, Metairie	June 1, 2012
Marty J. Chabert, Chauvin	June 1, 2006
Connie R. Cooper, Alexandria	May 31, 2007
Charles V. Cusimano, Metairie	June 1, 2006
Dr. John George, Shreveport	June 1, 2012
Francis M "Hank" Gowen, Jr., Shreveport	June 1, 2010
Hal H. Hinchliffe, Monroe	June 1, 2008
Alvin Kimble, Baton Rouge	June 1, 2012
Louis J. Lambert, Prairieville	June 1, 2008
Laura A. Leach, Lake Charles	June 1, 2012
Dorothy "Dottie" Reese, New Orleans	June 1, 2010
Ben W. Mount, Lake Charles	June 1, 2008
James P. Roy, Lafayette	June 1, 2010
Charles S. Weems, III, Alexandria	June 1, 2008

Executives of the LSU System

William L. Jenkins ..... *President of the University System*
Robert H. Rasmussen ..... *Assistant Vice President for System Relations*
Vacant ..... *Executive Vice-President*
Carolyn Hargrave ..... *Vice-President for System Academic Affairs*
Forest Benedict ..... *Vice President, Human Resource Management*

UNO Administrators

Chancellor ..... Timothy P. Ryan, Ph.D.
Chief of Staff ..... Rachel Kincaid, M.B.A.
Assistant to the Chancellor for Equal Opportunity.. ..... Tangeyon S. Wall, M.S.
University Counsel ..... Patricia Adams, J.D.
Internal Audit ..... LaKenya Collins, M.S., C.P.A, *Director*
Intercollegiate Athletics ..... James W. Miller, M.A., *Director*

Academic and Student Affairs

Provost and Vice Chancellor ..... Fredrick P. Barton, M.F.A.
Associate Provost for Academic Enhancement. ..... Dennis R. McSeveney, Ph.D.
General Studies Program ..... Edward Johnson, Ph.D., *Director*
Honors Program ..... Linda L. Blanton, Ph.D., *Director*
Human Resources Management ..... Ronald P Boudreaux, B.S., *Director*
Women's Center ..... Elizabeth Blakenship, M.A., *Director*

Associate Vice Chancellor for Assessment and
Institutional Effectiveness ..... Scott L. Whittenburg, Ph.D.
Assistant Vice Chancellor for Data Management, Analysis
and Reporting ..... Jack Bishop, M.A.
Assistant Vice Chancellor for Computer Services ..... James Burgard, B.A.
Learning Resource Center ..... Susan Danielson, M.A., *Director*
Associate Vice Chancellor for Enrollment Management and
Dean of Admissions ..... Ronald Maggiore, Ph.D.
Admissions ..... Robert J Hensley, Jr., *Director*
Student Financial Aid ..... Emily London-Jones, M.A., *Director*
Upward Bound ..... Lynette Bates, M.S. *Director*
Student Support Services ..... Ellen Levitov, M.R.C., *Director*
Project PASS, Project ACCESS ..... Brenda Brown, M.S., *Director*
New Student Orientation ..... Roberto Diaz Del Valle, B.A., *Director*
University Registrar ..... Kathleen Plante, M.A.
Graduate School ..... Robert C. Cashner, Ph.D., *Dean*
College of Business Administration ..... John Gardner, Ph.D., *Dean*
College of Education and Human Development ..... James Meza, Jr., Ph.D., *Dean*
College of Engineering ..... Russell Trahan, Ph.D., *Dean*
College of Liberal Arts ..... Susan Krantz, Ph.D., *Dean*
College of Sciences ..... Joe M. King, Ph.D., *Dean*
Metropolitan College ..... Robert L. Dupont, Ph.D., *Dean*
Academic Extension ..... Carl E. Drichta, Ph.D., *Associate Dean and Director*
International Education ..... Alea Morelock Cot, M.A., *Director*
Professional Development ..... Mark B. Stahl, M.S., *Assistant Dean and Director*
Library Services ..... Sharon Mader, Ed.D., *Dean*
Student Affairs. ..... Lucile O. Gallese, M.S., *Dean*
Ogden Museum of Southern Art. ..... J. Richard Gruber, Ph.D., *Director*

Financial Services

Vice Chancellor for Financial Services and Comptroller ... Linda K. Robison, M.S., C.P.A.
Associate Comptroller–Finance ..... Joy S Traylor, B.S., C.P.A.
Associate Comptroller–Budget ..... Tiffany Gilmore-Soublet, M.B.A.
Accounting Services ..... Patrick Casey, M.B.A., C.P.A., *Director*
Bursar ..... Michael Dauenhauer, B.S.
Purchasing ..... Stephen F. Kolz, B.S., *Director*

Government, Community and Diversity Affairs

Vice Chancellor for Governmental, Community
and Diversity Affairs ..... Robert W. Brown, M.S.

Technology and Economic Development

Vice Chancellor for Technology and Economic Development Norma Grace, M.P.A.
Small Business Development
Center ..... Alice Kennedy, M.B.A., *Director*
International Trade Center ..... Alice Kennedy, M.B.A., *Director*

Research and Sponsored Programs

Vice Chancellor for Research and Sponsored Programs
and Dean of the Graduate School ..... Robert C. Cashner, Ph.D.
Associate Vice Chancellor ..... Pamela O'Neil, Ph.D.
Assistant Dean of the Graduate School ..... Sandra H. Eason, Ph.D.
Training Resources and Assistive Technology Center ..... Gayle Gagliano, B.A., *Director*
Grants and Contracts ..... Carol T. Lunn, M.B.A. *Director*

Campus Services

Vice Chancellor for Campus Services ..... Joel Chatelain, M.S.
Associate Vice Chancellor for Campus Services ..... Will Peneguy, B.A.

Associate Vice Chancellor for Facility Services ..... Darryl Buras, M.Ed.
Assistant Vice Chancellor for Public Safety ..... Thomas Harrington, M.A.
Kiefer UNO Lakefront Arena ..... Marco A. Perez, Jr., B.A., *General Manager*
Auxiliary Services ..... Darlene R. Berggren, B.A., *Director*
Recreation, Intramural Sports and University Center ..... Margaret V. Royerre, M.S., *Director*
University Police ..... Ernest James, B.A., *Director*
Environmental Health & Safety ..... David Richardson, B.S., *Director*

University Advancement

Vice Chancellor for University Advancement ..... Sharon White Gruber, B.A.
Associate Vice Chancellor for Development ..... Marcelle Highstreet, J.D.
Associate Vice Chancellor for Communications ..... Gabrielle Gautreaux, M.A.
Alumni Association ..... Monique Gardner, J.D., *Director*
Marketing ..... Michael Rivault, M.B.A., *Director*
Public Relations ..... Johanna Schindler, B.A., *Director*
Creative Services ..... Robert L. Saux, M.B.A., *Director*
WWNO/KTLN ..... Chuck Miller, M.S., *General Manager*

Faculty Listing

Alphabetical

A

Abdelguerfi, Mahdi *Professor of Computer Science and Chair of the Department of Computer Science;* Ph.D., Wayne State University. Member, Graduate Faculty.

Abdel-Rahman, Hesham *Professor Economics and Finance;* Ph.D., University of Pennsylvania. Member, Graduate Faculty.

Adams, Glenn Robert *Instructor in English;* M.F.A., University of New Orleans.

Adeola, Francis O. *Professor of Sociology;* Ph.D., Mississippi State University. Member, Graduate Faculty.

Adler, Richard A. *Instructor in Biological Sciences;* Ph.D., University of Chicago.

Akyuzlu, Kazim M. M. *Professor of Mechanical Engineering;* Ph.D., University of Miami. Member, Graduate Faculty.

Al-Ashhab, Samer *Instructor in Mathematics;* Ph.D., North Carolina State University.

Alciatore, Henri A. *Instructor in Electrical Engineering;* M.S., University of New Orleans.

Alexander, Angela M. *Visiting Assistant Professor Educational Leadership, Counseling and Foundations;* Ph.D., University of New Orleans.

Allen, H. David *Professor of Sociology and Chair of the Department of Sociology;* Ph.D., Vanderbilt University. Member, Graduate Faculty.

Alsamman, Abdul Rahman *Assistant Professor of Electrical Engineering;* Ph.D., University of Alabama. Member, Graduate Faculty.

Alsup, Allison S. *Instructor in English;* M.F.A., University of California.

Altazan, John E. *Professor Economics and Finance;* Ph.D., University of Illinois, Urbana Campus. Member, Graduate Faculty.

Anthony, Nicola Mary *Assistant of Professor Biological Sciences;* Ph.D., Cambridge University. Member, Graduate Faculty.

Armour, Sr., Lawrence A. *Assistant Professor of Educational Leadership, Counseling and Foundations;* Ph.D., University of New Orleans.

Arnold, Allison *Instructor in English;* M.A., University of Kentucky.

Artigas, Maria Del Carmen *Professor of Spanish;* Ph.D., University of Virginia. Member, Graduate Faculty.

Ashar, Asaf *Professor-Research of Urban and Public Affairs;* Ph.D., Wales University College.

Atkinson, Connie *Assistant Professor of History and Associate Director of the Midlo Center;* Ph.D., University of Liverpool.

Augier, Denis M. *Associate Professor of French;* Ph.D., University of Indiana, Bloomington. Member, Graduate Faculty.

Austin, Patricia June *Professor of Curriculum and Instruction;* Ph.D., University of New Orleans. Member, Graduate Faculty.

Azzam, Rasheed M. A. *Distinguished Professor of Electrical Engineering;* Ph.D., University of Nebraska-Lincoln. Member, Graduate Faculty.

B

Ballanco, Betty J. *Instructor in Accounting and Director of the Business Administration Computer Installation;* M.S., University of New Orleans.

Barbé, Donald E. *Professor of Civil and Environmental Engineering and Chair of the Department of Civil and Environmental Engineering;* Ph.D., Louisiana State University. Member, Graduate Faculty.

Barnitz, John G. *Professor-Research of Curriculum and Instruction; Ph.D.*, University of Illinois. Member, Graduate Faculty.

Barnwell, Janet Elizabeth *Instructor in English;* Ph.D., Louisiana State University.

Barton, Fredrick P. *Professor of English, Provost and Vice Chancellor for Academic and Student Affairs;* M.F.A., University of Iowa. Member, Graduate Faculty.

Bates, Randolph *Associate Professor of English;* Ph.D., Tulane University. Member, Graduate Faculty.

Bavister, Barry D. *Professor of Biological Sciences;* Ph.D., Cambridge University. Member, Graduate Faculty.

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Beams, Joseph D. *Assistant Professor of Accounting;* Ph.D., Virginia Tech. Member, Graduate Faculty.

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Schuth, H. Wayne Professor Emeritus of Film, Theatre and Communication Arts; Ph.D., The Ohio State University.

Sexton, James D. Professor Emeritus of Special Education; Ph.D., University of Tennessee.

Shenkel, J. Richard Professor Emeritus of Anthropology; Ph.D.; State University of New York-Buffalo.

Shull, Steven Allan Research Professor Emeritus of Political Science; Ph.D.; The Ohio State University.

Skiffington, Frances W. Librarian Emerita; M.L.S., Louisiana State University, Baton Rouge.

Smith, Theresa L. Professor Emerita of Human Performance and Health Promotion; Ph.D., Louisiana State University, Baton Rouge.

Snowden, Jesse O. Professor Emeritus of Geology; Ph.D., University of Missouri, Columbia.

Stephens, Raymond W. Professor Emeritus of Geology; Ph.D., Louisiana State University, Baton Rouge.

Stern, Alfred Professor Emeritus of Special Education; Ph.D., University of Texas, Austin.

Stiebing, William H. Jr. Professor Emeritus of History; Ph.D., University of Pennsylvania.

Stillman, Richard J. Professor Emeritus of Management; Ph.D., Syracuse University.

Stocker, Jack H. Professor Emeritus of Chemistry; Ph.D., Tulane University.

Strickland, S. Mark Dean Emeritus of Academic Services; M.B.A., Auburn University.

Sullivan, John J. Professor Emeritus of Physics; Ph.D., Syracuse University.

Thayer, Ralph E. Professor Emeritus of Urban and Regional Planning; Ph.D.; Pittsburg University.

Trefonas, Louis M. Professor Emeritus of Chemistry; Ph.D., University of Minnesota, Minneapolis.

Varnado, Alban F. Professor Emeritus of Drama and Communications; Ph.D., Louisiana State University, Baton Rouge.

Villere, Maurice F. Professor Emeritus of Management; Ph.D., University of Illinois.

Wagner, Fredrick W. Professor Emeritus of Planning and Urban Studies; Ph.D., University of Washington.

Ward, William C. Professor Emeritus of Geology; Ph.D., Rice University.

Watkins, Terry A. Professor Emeritus of Mathematics; Ph.D., Texas Tech University.

Webb, Malcolm C. Professor Emeritus of Anthropology; Ph.D., University of Michigan, Ann Arbor.

Welch, George R. Professor Emeritus of Biological Sciences; Ph.D., University of Tennessee.

Whitbread, Leslie G. Professor Emeritus of English; Ph.D., DLit, University of London.

Wildgen, John K. Professor Emeritus of Planning and Urban Studies; Ph.D., Duke University.

Wildgen, Kathryn Eberle Professor Emerita of French; Ph.D., Duke University.

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Young, William Thomas Professor Emeritus of Fine Arts; Ed.D., Columbia University.

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Gaffney, Margaret J. Assistant Dean; M.A., University of New Orleans.

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Blanchard, Martha Assistant Dean; M.Ed., University of New Orleans.

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Bryant, Dante Coordinator of Graduate Assistants.

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Adler, Michael J. Assistant Director; B.A., University of Southwestern Louisiana.

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Jennings, Jenifer Administrative Coordinator II (Telecommunications).

Jones, Yolanda Telephone Systems Opr. II.

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Landry, Dottie Administrative Assistant IV.

Lewis, Cheryl Information Tech Consultant.

Lott, Michael Programmer Analyst; B.S., University of New Orleans.

Marrero, Melvin Information Tech Consultant.

Marshall, Chris T. Manager of Enterprise Networks.
Martinez, Billy Enterprise Programmer Analyst.
McCorkle, Jesse User Services Analyst.
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Rodriguez, Derek Project Support Consultant; B.A., University of New Orleans.
Rooney, David Programmer/Analyst; B.S., Rider College.
Sheffield, William G. Electronics Shop Manager; A.S., Delgado Community College.
Sicard, Bill Database Administrator; M.S., National Technology Institute.
Stott, Philip Senior Network Engineer; B.S., University of New Orleans.
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Weiser, Paul Application Analyst; M.B.A., University of New Orleans.
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Division of Enrollment Management

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Vacant, Assistant Director of Admissions for Transfer Credit.
Vacant, Admissions Counselor for Transfer Credit.

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McDonald, Brian James Information Technology Coordinator, Division of Academic Extension; M.Ed., University of New Orleans.
McMurray, Michael J., Director of Testing Services, M.A., University of New Orleans.
Neville,William Joseph Director of Operations; M.S., University of New Orleans.
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Pruitt, Dennis Darrin Coordinator, Distance Education; Ph.D., Tulane University.
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Maheu, Charlotte Joel Director, Academic Support Center; M.S., University of New Orleans.

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Staff of Learning Resource Center

Broussard Jr, Staffas Vincent Assistant Professor of Mathematics and Counselor, Learning Resource Center; M.S., University of New Orleans.

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Staff of Developmental Mathematics Program

Crespo, Lisa B. Instructor/Counselor Developmental Math; M.S., University of New Orleans.

Mancuso, Lori Feliu Instructor/Counselor Developmental Math; M.S., University of New Orleans.

Nowalsky, Judith L. Instructor/Counselor Developmental Math; M.S., Tulane University.

Olvany, Margueritte Dawn Instructor/Counselor Developmental Math; M.S., University of New Orleans.

Outlaw, Sue Ann Instructor/Counselor Developmental Math; M.A., University of New Orleans.

Schwaner, Tom T. Instructor/Counselor Developmental Math; M.S., Loyola University in New Orleans.

Sherry, Roma M. Instructor/Counselor Developmental Math; M.S., University of Witwatersrand.

Spahn, Toni Marie Tusa Instructor/Counselor Developmental Math; M.S., Tulane University.

Admissions

Admission to the University and to all its programs and operations is open to all persons regardless of race, creed, color, sex, age, marital status, handicap, veterans' status, or national origin who meet the admission requirements and qualifications of the University.

The University requires a non-refundable $40 application fee of all new applicants (required for first time applicant to UNO only). The fee is payable when the application is submitted to the Office of Admissions. Priority dates for the receipt of an application are July 1 for the fall semester, November 15 for the spring semester, and May 1 for the summer session. International students should refer to page 31 for admission deadlines. An additional non-refundable $30 late application fee will be charged for all late applications.

Summer Session: Application forms for summer admission to the University should be submitted as early as possible so that a admission decision may be given. If records are not received at least 30 days prior to the beginning of the summer session, it may not be possible to notify students of their admissibility before arrival on the campus.

For information and application forms, contact the Office of Admissions, UNO, Lakefront, New Orleans, Louisiana 70148; or access the University on the World Wide Web at http://www.uno.edu.

UNDERGRADUATE ADMISSIONS

Categories of Admission and Procedures

EARLY ADMISSIONS

Outstanding high school students who have completed their junior year of high school may be admitted to the University, in any of the following categories, if they meet the stated requirements. Students must be academically prepared to enroll, and there must be the ability to predict academic success.

Summer Only During the summer between their junior and senior year of high school, the Summer Honors Program allows students to schedule up to seven semester hours of credit.

Concurrent Enrollment During the fall and/or spring of the senior year of high school, students may be enrolled at their high school and at the University. They are allowed to take up to 11 semester hours of credit, depending on how demanding their high school schedule is.

Full-Time Enrollment Students having the approval of their high school principal may "skip" the senior year of school and register as full-time students. These students may be eligible to receive their high school diploma after successfully completing 24 semester hours of credit.

To be admitted to any of the above Early Admission categories, a student:

1. must have completed the junior year of high school,
2. must be recommended for Early Admission by the high school principal,
3. must have a B average on all high school grades, and
4. must have a composite ACT (American College Test) score of 25 or higher (SAT score of 1130 or higher) for the Summer Only or Concurrent category, and 28 (SAT score of 1240 or higher) or higher score for the Full-Time program.

Students wishing to apply for admission to any of the Early Admission categories should contact the Office of Admissions at UNO for the necessary application forms.

NEW FRESHMAN

Admission Requirement

Students who graduate from state-approved high schools must complete the Louisiana Board of Regents Core Curriculum (currently TOPS Core) and require no more than one developmental/ remedial course and one of the following:

1. ACT composite score 23 or greater (SAT I 1060)

OR

2. High school cumulative GPA of 2.5 or greater.*

OR

3. High school graduation rank top 25 percent of class.

Out-of-state and home school students who do not meet the

core curriculum must satisfy all items listed above or have a composite ACT score of 26 or greater (SAT I 1170) and require no more than one developmental/remedial course.

Adult freshmen age 25 and over who are graduates of state approved high schools, (or have received their GED), need not satisfy the test score, GPA, and rank admission requirements.

*Students with less than a 2.0 will not be admitted.

Louisiana Board of Regents

Core Curriculum

Units	Course
4	English I, II, III and IV
1	Algebra 1 (one unit) or Applied Algebra 1A and 1B (two units)
1	Algebra II
1	Geometry, Trigonometry, Calculus or an approved Advanced Math substitute
1	Biology
1	Chemistry
1	Earth Science, Environmental Science, Physical Science, Biology II, Chemistry II, Physics, Physics II or Physics for Technology (one unit)
1	American History
1	World History, Western Civilization or World Geography
1	Civics and Free Enterprise (one unit combined) or Civics (one unit)
1	Fine Arts Survey (or substitute two units of performance courses in music, dance, and/or theater; or substitute two units of visual art; or substitute two units of studio art; or substitute one unit of an elective from among the other subjects listed in this core curriculum)
2	Foreign Language (two units in the same language)
16.5	Computer Science, Computer Literacy or Business Computer Applications (or substitute at least one-half unit of an elective course related to computers approved by the State Board of Elementary and Secondary Education or one-half unit as an elective from among the other subjects listed in this core curriculum)
16.5	Total Core Curriculum Units

NOTE: Other courses may be acceptable as substitutes for courses in the core curriculum. Contact LOSFA at www.osfa.state.la.us for more information on acceptable substitute courses.

All freshman applicants should submit their applications as early as possible in their senior year. Applicants who meet admission requirements will be admitted conditionally as soon as possible after receipt of the application, official test scores, and official high school transcripts. UNO will retrieve transcripts for Louisiana high school graduates from the Louisiana State Transcript System (STS) if available. An official transcript certifying courses, grades and graduation from high school is required to finalize admission.

Transcripts must be mailed directly from the high school to the UNO Office of Admissions in order to be considered official; ACT/SAT I scores must be sent directly to UNO from the American College Testing Program/Educational Testing Services.

Students should consult the Special Student section for other exceptions to regular admission requirements.

Advanced Standing Examinations

Students of superior ability and preparation and students who have already obtained a fundamental knowledge of subjects offered by the University may be permitted to take departmental advanced standing examinations in specific courses, which, if passed with satisfactory grades, will enable the student to receive degree credit. The Advanced Placement tests of the College Entrance Examination Board (CEEB) and the subject examinations of the College Level Examination Program (CLEP) also may be used as a basis for allowing advanced standing credit. Details on advanced standing are outlined in the chapter entitled *University Regulations*. New freshmen may also seek advanced standing through the University Spring Testing Program during the spring of their senior year of high school. Contact the Office of Admissions for details.

Admissions Review Board

The Admissions Review Board is charged with evaluating applications for admission from undergraduate freshmen, transfer, and UNO re-entry students who fall outside prescribed admissions guidelines, but who present unusual or extenuating circumstances that may affect academic performance. The Board makes recommendations to the Director of Admissions regarding students who may be considered exceptions. The Board is comprised of representatives from each of the academic colleges/programs and the Academic Support Center. In its role, the Board will provide advice and guidance about conditions or restrictions placed upon a student's admission, including change of program/plan, course restrictions, and academic load.

All appeals for admission/re-admission consideration should explain the extenuating circumstances in writing to the Admissions Review Board, c/o the University of New Orleans, Office of Admissions. Special circumstances must be detailed and documented. All appeals for admission through the Admissions Review Board must be received by the Director of Admissions not later than seven (7) working days before the first class day for a semester/term.

A student who is returned to the rolls of the University upon recommendation of the Admissions Review Board may not obtain credit toward a degree at UNO with credits earned at another institution during the period when the student was ineligible to register at UNO.

TRANSFER STUDENTS

Those applicants who are now or have been in college should submit applications as early as possible in the semester preceding the date that admission is desired. Eligibility for admission cannot be determined until the application and complete official transcripts from each college and university

attended have been received. If these records are not received at least 30 days before the beginning of registration, it may not be possible to process the application in time. Applicants must list on their applications each college and university attended and have transcripts sent from all institutions attended, regardless of whether credit was earned or is desired. Any student who fails to acknowledge attendance in each college or university in which he or she has been registered is subject to dismissal from the University.

Students enrolled in college at the time applications are submitted should have transcripts sent when they apply for admission, to be followed by the complete final transcript at the close of the semester. Provisional admission pending receipt of supplementary records may be given provided all records except for the work in progress have been received. This admission will be cancelled and the enrollment terminated if the student fails to file all required records within 30 days of the beginning of instruction or if the completed record does not meet requirements for admission.

Credits earned at other post-secondary institutions and presented for transfer credit will be evaluated according to four considerations:

1. the educational quality of the institution from which the credit is being transferred;
2. the comparability of the nature, content, or level of credit to that offered by UNO;
3. the appropriateness and applicability of credit earned to the programs offered by UNO; and
4. a member of one if the six regional accreditating agencies.

The extent to which credits earned in colleges and universities are accepted toward the degree program the student follows at UNO is determined by the dean of the college in which the student plans to major. All transfer students pursuing a degree who receive transfer credit for English 1158 with a grade of C or better must validate that credit by passing the English Proficiency Examination for Transfer Students within two attempts. Students are eligible to take the exam only during their first two regular semesters of enrollment. The exam is administered twice each semester by the Department of English. If students fail to validate the credits, either because they do not take the examination or because they do not pass in their first two attempts, or if they have previously received a failing grade in 1158 from UNO, they must take and pass English 1158 with a grade of C or better. Transfer students with a D in English 1158 must re-take the course at UNO.

Students transferring with 1158 credit may take any upper-level English course for which they qualify during their first semester, provided that they resolve their 1158 transfer credits within that first semester. Should they fail the transfer exam, they must take 1158 before they take another English course. If transfer students do not want to take an upper-level English course, they may use the traditional two semesters to resolve the matter of their transfer credit.

Evaluation of courses cannot be made in advance of receipt of the completed application and official transcripts from each college and university attended. Not more than one-half the credit required for a degree may be accepted from junior or community colleges. A maximum of one-fourth the credit required for the degree may be earned through appropriate university correspondence and extension study.

Applicants who do not have a 2.25 cumulative grade-point average required for admission to UNO should contact the Admissions Office for details regarding admission alternatives.

Transfer students with less than 18 semester hours of earned credit must satisfy freshman requirements as well as transfer admission requirements.

RE-ENTRY STUDENTS

Former UNO undergraduate students who were not enrolled in the regular semester immediately preceding the semester of desired enrollment must apply for admission according to the deadline published in the catalog. If intervening college work was taken, official transcripts from all institutions attended must be submitted.

Former students who were on scholastic probation and are readmitted will be continued on scholastic probation regardless of the average earned at the other institution(s).

Former students whose last enrollment at UNO resulted in a drop for scholastic or disciplinary reasons may not obtain credit toward a degree at this university with credit earned at another institution during the period of ineligibility to register at UNO.

SUMMER-ONLY STUDENTS

Students who are enrolled in any accredited college or university during a spring semester and will be eligible to return to that college or university in the following fall and wish to enroll in UNO for the summer session only may be considered for admission as nonmatriculated students. Such admission will terminate at the end of the summer session and does not presuppose acceptance by any college or division of the University during the regular session. Students attending on this basis must submit certification of eligibility from the college or university in which they are currently enrolled stating total number of credit hours previously earned. This certification of eligibility will be accepted in lieu of official transcripts. New freshmen entering UNO during the summer are not classified as *summer-only students* even though they plan to attend another university in the fall.

SPECIAL STUDENT PROGRAM

Undergraduates wishing to pursue college credit courses without meeting the full requirements for admission may apply for special student status. To qualify for special student status, a student must be a high school or GED graduate and have been out of high school for at least three years, or if the student attended college after high school, be in good standing at the last college attended.

Students holding a bachelor's degree from an accredited college/university who are not pursuing another undergraduate degree should apply for admission to the undergraduate college in which they intend to complete most of their additional coursework.

Previous academic records are not required of applicants for Special Student status. It is urged that Special Students plan-

ning to enroll in advanced courses requiring prerequisites bring with them at registration some evidence that prerequisites have been fulfilled. Special Students may be admitted to a course for which they lack the specified prerequisite upon the approval of the Chair of the department offering the course and the Dean of the college to which the department belongs. Students registering in Special Student status are subject to all University regulations governing registration and attendance. Their academic standing will be determined on the basis of coursework taken in Special Student status only. A Special Student who is admitted later to regular status will have his/her academic status determined by the admitting dean, on the basis of the complete record which will then be available. Credit earned in Special Student status is recorded on the student's permanent academic record. The applicability of this credit toward a degree will be determined by the Dean of the college to which the student is admitted.

A Special Student *may not* petition the Dean of Metropolitan College for scholastic amnesty or permission to take advanced standing examinations. In addition, a Special Student may not receive credit for courses bypassed, CEEB Advanced Placement Examinations, the College Level Examination Program, armed services courses, and correspondence courses. Special Students who change to degree status may petition the dean of the new college for all of the above.

A Special Student is eligible to apply for a grade suspension when a course is repeated. If a Special Student changes to degree status the grade suspension will be reviewed in light of the complete UNO and transfer record and may be nullified if it appears as though the student would not have been eligible for the original suspension.

A student in good standing may remain in the Special Student status indefinitely; however, should the student transfer to a degree program, a maximum of 30 semester hours of credit earned as a Special Student will be allowed toward a degree program. (A minimum of 30 semester hours must be completed in the college in which the degree is awarded.)

Students whose last enrollment at any institution of higher education resulted in an academic/disciplinary suspension are not eligible for the Special Student status and must file a regular application with the Office of Admissions. The form may be obtained from that office.

Students in Special Student or Summer Only status who wish to change to a degree program must first complete a 'Change to Undergraduate Degree Status' form in the Office of Admissions and must comply with all admissions requirements. Official transcripts from all universities attended must be submitted prior to the application deadline. Students must comply with all admission requirements of the college.

Students applying for regular status in a degree program must have all credentials submitted prior to the application deadline. Special students will not be admitted to regular status as provisional admittees.

Veterans planning to attend UNO under one of the Public Laws governing veterans' educational benefits should not attempt to enroll in the Special Student status. To be eligible for educational benefits, a veteran must enroll in regular status. Special Students are not eligible for federal financial aid.

Golden Age students are encouraged to apply for their first admission through the Special Student Program.

International students will NOT be permitted to register in the Special Student status.

International Students

Citizens of a foreign country applying to UNO as freshmen and transfer undergraduate students are expected to meet all requirements for admission to the University. Graduates of foreign secondary schools who have completed the equivalent of at least an American high school diploma may apply for admission to UNO. Transfer applicants are considered for admission on the basis of secondary school records as well as previous college records. The deadline dates for filing applications and submitting complete official records are June 1 for the fall semester, October 1 for the spring semester, March 1 for the summer session.

Proficiency in the English language is vital to the academic success of international students. All students whose native language is not English are required to submit an acceptable *Test of English as a Foreign Language* (TOEFL) score of 525 with a composite score of 50 on the listening comprehension section or a composite score of 195 on the computer based test or 71 on the internet based version as part of the application process. For additional information on the TOEFL write: TOEFL, Educational Testing Service, Princeton, New Jersey 08540, USA. Further testing will be given to verify English competency when the student arrives on campus.

In certain cases applicants with superior academic credentials who do not meet the minimum TOEFL requirement may be considered for admission into the Intensive English Language Program before pursuing a degree. All applicants are required to provide evidence of sufficient funds to cover all costs while studying at the University.

It is mandatory that all international students participate in the LSU System student medical insurance program. Fees for this insurance will be assessed at registration.

Golden Ager Program

This program is designed to encourage persons over 65 years of age to enroll in credit classes at UNO. It has been made possible by state legislation which exempts persons age 65 and over from payment of tuition and fees at all public colleges and universities in the state. The costs of textbooks and special fees are not included in the fee exemption.

The same academic regulations which apply to the student body in general also apply to Golden Agers. These include class attendance, testing, course prerequisites, and admission requirements. It is recommended that Golden Agers apply for their first admission through the Special Student Program housed in Metropolitan College.

Scholastic Amnesty

The University permits students who have not attended college for a given three-year period to request that all work prior to that three-year period not be considered in computing their averages. This allows a student who may have made a poor record in the first attempt at college to start over with a "clean

slate." Of course, this means sacrificing any credit earned prior to that three-year period also. For further explanation the student should consult the Office of Admissions or the dean of the college in which the student wishes to study.

Fees and Financial Aid

Fees for auditing classes are the same as for enrolling for credit. Nonresident fees, however, are not applicable if the student is enrolled in audit classes only. Audit classes cannot be used as eligible classes for establishing minimum enrollment requirements for Financial Aid Programs. (This includes all grant, loan, and scholarship programs.)

Special Fees

* * SPECIAL FEES ARE NON-REFUNDABLE * *

Biological Sciences 1051, 1061, 1071, 1081, 1301, 1311 ..... $10
Biological Sciences 4624, 4844, 4914, 4944, 4954, 4974 .. $15
Chemistry 1023, 1028 ..... $10
Film, Theatre and Communication Arts 4510 ..... $35
English 2311, 2312 ..... $10
Fine Arts 1013, 1014 ..... $10
Fine Arts 2400, 2500, 2600, 2800, 2810, 3401, 3402, 3403, 3501, 3502, 3503, 3601, 3602, 3603, 3801, 3802, 3803 ..... $20
Geology 1003, 1004 ..... $10
Geology 3093 ..... $30
Hotel, Restaurant and Tourism Administration 2030, 3141$20
Hotel, Restaurant and Tourism Administration 4230 .... $15
Physics 1003, 1004, 1007, 1008, 1011, 1033, 1034, 1063, 1065 $10
Telecourse Offerings (401-409 sections) $15
Co-op course fee $75

Miscellaneous Fees

Registration Fee NON-REFUNDABLE[1] $10
Late Registration Fee NON-REFUNDABLE $30
Application Fee NON-REFUNDABLE[2] $40
Late Application Fee NON-REFUNDABLE $30
Advanced Standing Examination Fee $20
Extended Payment Plan Option (EPPO) NON-REFUNDABLE
Not available for Summer semesters $50
International Student Fee NON-REFUNDABLE $75
Off-Campus Registration Fee NON-REFUNDABLE[3]
(except for Graduate students) $45
Technology Fee ($75 maximum per semester) .. $5/credit hour .....
Operational Fee–Undergraduate (Fall and Spring)
1-3 hours $22
4-6 hours $43
7-9 hours $54
10-11 hours $64
12 hours and up $69
Operational Fee–Graduate (Fall and Spring)
1-3 hours $22
4-6 hours $43
7-8 hours $54
9 hours and up $69
Operational Fee–Undergraduate (Summer).
1-3 hours $23
4-5 hours $33
6 hours and up $40
Operational Fee–Graduate (Summer)
1-3 hours $23
4-5 hours $33
6 hours and up $40
Professional Program Fee – MBA
1-3 credits $316
4-6 credits $662
7-8 credits $785
9 credits and up $1,000
Fuel Recovery Fee (Fall and Spring) . $2.50 per credit hour ($30.00 maximum for undergraduates and $22.50 for graduates) Academic Enhancement Fee ..... $10/credit hour ($120 maximum)

Diploma Fees (Required to graduate):

* * DIPLOMA FEES ARE NON REFUNDABLE * *

Bachelor's $50
Master's $50
Doctoral $50
Dissertation Processing & Microfilming $45
Thesis Processing $20
Degree only fee $15
Diploma remake $5

[1] This fee will not be assessed to first-time freshmen.

[2] This fee is not assessed to students re-entering the University.

[3] Also applies to undergraduate students enrolled in both on- and off-campus courses.

Refund of Fees

When a student officially resigns from the University, refund of the University fees and nonresident fees for the class(es) in which the student is currently enrolled will be made as shown in the Course Schedule Bulletin.

Student schedule changes (not resulting in a resignation from the university) which require reductions in fee assessments will be refunded at the full rate if such changes are made on or before the final date for adding courses or changing sections in a semester. Thereafter no refund will be made for reduction of hours.

Students administratively resigned from the University because their provisional admissions are not approved will be refunded according to the Class Schedule Bulletin. Due to the volume of student-initiated resignations and schedule changes, the University will be unable to provide fee refunds for at least two to three weeks following the first day of classes during any semester.

Students due a University fee refund because of a course cancellation should contact the Bursar. Field service and laboratory fees are generally not refundable unless the course is canceled. Fees for auditing courses will not be refunded.

MILITARY SERVICE REFUND Students in good standing who volunteer for or are called to active duty with the Armed Services before the day mid semester examinations begin will have the University fee, and, if applicable, the nonresident fee refunded in full. After mid semester examinations begin only 50 percent of the University fee and, if applicable, the nonresident fee will be refunded. Documentary proof establishing voluntary or involuntary enlistment must be submitted to the Office of the Registrar and will be required before any fees are refunded.

Motor Vehicle Registration

All UNO students (inclusive of full-time, part-time, day, evening, Saturday only, etc.) must purchase a parking decal prior to parking any vehicle on the main campus or east campus. All parking on campus (except in pay parking lots and at parking meters) is by parking permit only. Decals are issued between 8:00 a.m. and 8:00 p.m., Monday-Thursday, and 8:00 a.m.-4:30 p.m. on Friday at the University Police Office.

To obtain a parking permit University Police requires:

1. A completed Vehicle Registration Form
2. On-line verification of decal assessment.
3. A current driver's license.
4. Proof of motor vehicle registration.

Registration Fees

	1st Motor Vehicle	Additional Motor Vehicle
Fall Semester	$80	$40
Spring Semester	$65	$35
Summer Session	$30	$15

Fees are subject to change without prior notice, and no refunds will be issued. However, decals will be replaced without charge (e.g., to accommodate broken windshields, new car purchases, and similar situations) if you remove the old decal and present the remnants (shreds will suffice) to University Police; otherwise, you will be charged for an additional decal in accordance with the rates in effect for that particular semester.

The decal must be permanently affixed to the vehicle to which it is assigned. Registration is not complete until the decal is affixed to the outside lower part of the rear windshield on the left (driver's) side in the self-adhesive manner. Decals are non-transferable.

Financial Aid

All types of financial aid, including grants, loans, scholarships, and part-time campus work, is processed through the Office of Student Financial Aid. Students interested in receiving financial aid should first complete the *Free Application for Federal Student Aid (FAFSA)* and be accepted for admission to the university. A list of many deadlines and helpful information about financing your UNO education is available from the Office of Student Financial Aid or online at http://www.finaid.uno.edu/. This office will evaluate each student's eligibility based upon information supplied and in accordance with the financial aid policy below.

Information about student aid, the FAFSA, and other financial aid forms may be obtained either from the Office of Student Financial Aid; University of New Orleans; Administration Building, Room 1005; New Orleans, LA 70148 or from the UNO website; http://www.uno.edu/

Financial Aid Policy

In determining the eligibility for financial assistance, the Office of Student Financial Aid is guided by the data supplied by the parents and/or student on the FAFSA which determines the contribution that is expected from family resources and the student's estimated expenses known as the cost of attendance. The university attempts to provide the difference between the cost of attendance and the expected family contribution (EFC). In some cases, there is aid available to assist in fulfilling the EFC in the form of an Unsubsidized Student Loan or a PLUS loan for parents of dependent students. Financial aid packages may not exceed the students cost of attendance.

April 15 of each award year is the priority deadline date for priority processing of financial aid. Students interested in participating in one of the federal or state student financial assistance programs at UNO (Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Federal College Work-Study Program, Leveraging Educational Assistance Partnership grant, Federal Perkins Loan, or the Federal Family Loan Program, i.e., Stafford and Parent Loans) MUST file a completed FAFSA. Forms may be obtained from high school counselors, the UNO Office of Student Financial Aid, or online at www.fafsa.ed.gov.

The financial aid packages are awarded to students annually for the Fall and Spring semesters combined. Students wishing to attend the Summer semester may apply for residual aid that was not used during the Fall and Spring semesters by completing a Summer Request Form. Subsequent annual award packages are based upon the data supplied on the Renewal

FAFSA and upon the student making satisfactory academic progress. A copy of the university's Satisfactory Academic Progress policy may be obtained from the Office of Student Financial Aid.

No action can be taken on a financial aid application until the applicant has also been accepted for admission to the university into an eligible curriculum. All questions pertaining to student financial aid should be directed to the Office of Student Financial Aid.

Grants

Federal Pell Grants are available to undergraduates who have not yet attained a bachelor's degree. The maximum amount of the grant will be set by the U.S. Department of Education based on congressional appropriations. The actual amount of the grant is determined by the Expected Family Contribution (EFC) which is based on income and assets of the family, as well as, by the number of credit hours the student enrolls.

Leveraging Educational Assistance Partnership (LEAP) grants are available to undergraduate students who have not yet attained a bachelor's degree. The amount of the award may range from a minimum of $200 to a maximum of $2,000 per year, based on financial need (the availability of funds is determined by the State of Louisiana each year. To receive a LEAP grant the applicant must have an overall GPA of a 2.000 and be registered as a full-time student.

Federal Supplemental Educational Opportunity Grants (FSEOG) are available to undergraduate students who have not yet attained a bachelor's degree. The amount of the award may range from a minimum of $200 to a maximum of $4,000 per year (based upon availability of funds) and must be given to the most needy UNO students, according to the Estimated Family Contribution as determined by the FAFSA. These grants are initially awarded to students that file their FAFSA the earliest since the funds are limited for this program.

Academic Competitiveness Grant (ACG) and National Science and Mathematics Access to Retain Talent Grant (National SMART) New federal grants authorized by the Higher Education Reconciliation Act of 2005, established two grant programs for students who major in fields related to computer science, mathematics, engineering, physical sciences, technology, life sciences, and designated foreign languages.

Recipients must be full-time students, U.S. citizens, and eligible for federal Pell Grants. Grants for freshman or sophomore students are called Academic Competitiveness Grants (ACG). Grants for junior or senior students are called National Science and Mathematics Access to Retain Talent Grant (SMART). ACG is worth $750 for freshman and $1300 for sophomore students for per academic year. SMART is worth $4000 for junior and senior students for per academic year.

Academic Competitiveness Grant (ACG) Enrollment Requirements

1st academic year undergraduate students must have completed a rigorous (as recognized by the Secretary of Education*) secondary school program established by a state or local education agency after January 1, 2006 and, not have previously enrolled in an undergraduate education program.

2nd academic year undergraduate students must have completed a rigorous (as recognized by the Secretary of Education*) secondary school program established by a state or local education agency after January 1, 2005. Students must have a cumulative GPA of at least 3.0 and earn a minimum of 24 credits at the conclusion of the first year of undergraduate education.

National Science and Mathematics Access to Retain Talent Grant (SMART) Enrollment Requirements

3rd or 4th academic year undergraduate students must be pursuing a major in: computer science, mathematics, engineering, physical sciences, technology, life sciences, and designated foreign languages. (As determined by the Secretary of Education pursuant to regulations), have a cumulative GPA of at least 3.0 as a fulltime student.

Loans

Several loan programs are available to students at UNO. These loan programs operate with the understanding that the student will repay the borrowed amount under the terms of the loan. Loans are available to students from the Federal Stafford Student Loan Program and the Federal Perkins Loan Program. Parents of dependent students may also apply for the Federal PLUS Loan for parents. Additional information about this program and other alternative student loans may be obtained from the Office of Student Financial Aid.

Federal Stafford Student Loan Program (Subsidized and Unsubsidized) is available to most students who are enrolled at least half-time and who meet certain qualifications. A Subsidized Stafford loan is awarded to students that demonstrate federal financial need. The loan funds will be unsubsidized if the student does not demonstrate federal financial need. Loans are made in amounts up to $2,625 for freshman, $3,500 for sophomores, and up to $5,500 for juniors and seniors. Graduate students are eligible to apply for up to $8,500 per academic year. Independent students and dependent students whose parents are denied a Parent PLUS loan may apply for additional Unsubsidized Stafford Loan funds in amounts up to $4,000 for freshman and sophomores, up to $5,000 for juniors and seniors, and up to $10,000 for graduate students. There are both annual and aggregate loan limits for these programs. Students may choose their own lender or they may allow the Office of Student Financial Aid to assign a lender for the student's loan. Repayment of student loans is not required while the student is enrolled in school at least half-time. Please read all information provided about the terms and conditions of a Stafford Student Loan prior to accepting a loan or signing a promissory note.

Federal Perkins Loans are available for students in amounts up to $4,000 for undergraduate students and up to $6,000 for graduate students (based upon availability of funds) per year. No repayment and no interest is charged as long as the student is attending school in at least half-time enrollment.

After the student has left the University, he or she must begin repaying the loan within nine months at an interest rate of five percent per year. The repayment period, depending upon the amount borrowed, might extend up to ten years. Borrowers who teach in certain specified elementary or secondary schools where there is a high concentration of students from low-income families may qualify for forgiveness privileges of up to 100 percent of the loan if they teach there for a period of five years.

Scholarships and Fee Exemptions

The University of New Orleans has a long-standing tradition of pride in the academic ability of its students. The University has demonstrated its commitment to excellence by establishing a growing number of scholarship opportunities for students. Each year, over $1.5 million dollars in academic scholarships are awarded. These scholarships are awarded on the basis of outstanding high school academic records, strong standardized test scores, class rank, and achievements in leadership and community service. Freshmen admitted to the University for the Fall semester are considered for scholarships if they complete an Application for Undergraduate Admission by March 1.

A student may use only one fee-exemption or tuition-based scholarship during any semester or summer session, but generally may hold a cash-award scholarship concurrently with a fee-exemption. A student automatically forfeits an award upon failure to maintain the required scholastic average for any given award, upon failure to claim the award for any semester, upon resignation during a semester, or upon being dropped from the rolls of the University. Additional information and applications for scholarships and fee-exemptions are available from the Offices of Student Financial Aid and Admissions. Please note: meeting the minimum requirements does not guarantee a scholarship.

Gaining and Maintaining Scholarship Eligibility

Students must qualify fully for admission to UNO to be eligible for a scholarship award and must remain in good academic and disciplinary standing with the university to retain their scholarships. Scholarship renewal is guaranteed if the student presents a cumulative grade point average of at least 2.75 and has successfully completed at least 24 credit hours of academic credit at the end of the academic year. Most scholarships are renewable for up to four years or 128 hours, whichever comes first. Institutional scholarships cannot be used during the summer session.

NATIONAL MERIT/NATIONAL ACHIEVEMENT FINALIST SCHOLARSHIPS

Award: Tuition, including (when applicable) out-of-state tuition if not covered by any state or institutional scholarship, exemption, or waiver; the cost of a semi-private room in Bienville Hall plus full board; and a $500 book allowance. Eligibility Requirement: Finalists in the national competition.

CHANCELLOR'S SCHOLARSHIPS

Award: Tuition, including (when applicable) out-of-state tuition, if not covered by any state or institutional scholarship, exemption or waiver; the cost of a semi-private room in Bienville Hall plus full board; and a $500 book allowance. Minimum Eligibility Requirements: 27 composite score on the ACT (1210 SAT) and 3.5 high school GPA.

DECENNIAL SCHOLARSHIPS

Award: If tuition is covered by a state or institutional scholarship, exemption or waiver, a full board allowance and a $500 book allowance. If tuition is not covered by any state or institutional scholarship, exemption, or waiver, the cost of in-state tuition and a one-half board allowance. Minimum Eligibility Requirements: 23 ACT (1060 SAT) and 3.0 high school GPA.

URBAN LEADERSHIP SCHOLARSHIPS

Award: A fee waiver covering the cost of up to one-half in-state tuition for the academic year. Minimum Eligibility Requirements: Full-time enrollment, good academic standing, and significant evidence of leadership or service.

BASIN STREET JAZZ SCHOLARSHIPS

Award: A fee waiver covering the cost of in-state tuition and (where applicable) the cost of out-of-state tuition for the academic year, full room and board, and a book allowance of $500. Minimum Eligibility Requirements: Eligible to enroll and acceptance into UNO's Jazz Studies Program.

HANKS/LOGSDON ENDOWED SCHOLARSHIPS are offered by Mr. Carl E. Muckley, an alumnus of the University of New Orleans. He established these two scholarship programs in honor of two UNO professors who were instrumental in his educational experience at UNO. The two scholarships, known as the Dr. Donald K. Hanks Endowed Scholarship Fund in Philosophy and the Dr. Joseph Logsdon Endowed Scholarship Fund in History, will provide senior students majoring in philosophy and history with scholarship and book expense support. The grade-point average maintained by each of the potential scholarship recipients and their financial need shall be the major factors in selecting the recipients for the philosophy and history scholarships. Scholarship recipients will be selected by the Chairmen of the Departments of Philosophy and History with the assistance of the Dean of the College of Liberal Arts and others as deemed appropriate by the Chairmen and the Dean. For information, please contact the Chairmen of the Departments of Philosophy and History.

JAMES W. ELLIS HIGH SCHOOL HONOR SCHOLARSHIPS

Award: The cost of one three-credit course and, when funding is available, the cost of books. Eligibility Requirements: Students must have completed the junior year of high school, be recommended by the high school principal or counselor, have an overall 'B' average for all high school grades, and have a composite ACT score of 25 or higher (28 for full-time).

LAFITTE SCHOLARSHIPS

Award: Full in-state tuition and one-half board allowance If

tuition is covered by state or institutional scholarship, exemption or waiver, a full board allowance and a $500 book allowance. Minimum Eligibility Requirements: 26 ACT (1200 SAT) and 2.7-2.9 high school GPA.

PRIVATEER SCHOLARSHIPS

Award: a $500 book allowance or $1,850 housing credit. Minimum Eligibility Requirements: 20-22 ACT (940-1050 SAT) and a 3.0 high school GPA.

PRIVATELY FUNDED SCHOLARSHIPS

Scholarships awarded by outside agencies are administered according to the rules and regulations prescribed by the donors as accepted by the LSU Board of Supervisors.

REGENTS SCHOLARSHIP

Award: one-half in-state tuition and a $500 book allowance. If tuition is covered by a state or institutional scholarship, exemption or waiver, a one-half board allowance and a $500 book allowance. Minimum eligibility requirements: 26 ACT (1200 SAT) and a 2.5-2.69 high school GPA.

NAPOLEON SCHOLARSHIP

Award: one-half in-state tuition and a $500 book allowance. If tuition is covered by a state or institutional scholarship, exemption or waiver, a one-half board allowance and a $500 book allowance. Minimum eligibility requirements: 23-25 ACT (1060-1160 SAT) and a 2.7-2.9 high school GPA.

CLAIBORNE SCHOLARSHIP

Award: a $500 book allowance or $1850 housing credit. Minimum eligibility requirements: 23-25 ACT (1060-1160 SAT) and a 2.5-2.69 high school GPA.

IBERVILLE SCHOLARSHIP

Award: If not covered by another state or institutional scholarship, full in-state tuition and full non-resident fee exemption. Minimum eligibility requirements: 27 ACT (1210 SAT) and a 3.0-3.4 high school GPA.

ST. CHARLES SCHOLARSHIP

Award: If not covered by another state or institutional scholarship, full non-resident fee exemption. Minimum eligibility requirements: 23-26 ACT (1060-1200 SAT) and a 2.7 high school GPA.

PONTCHARTRAIN SCHOLARSHIP

Award: If not covered by another state or institutional scholarship, $5,000 non-resident fee exemption. Minimum eligibility requirements: 23-26 ACT (1060-1160 SAT) and a 2.5-2.69 high school GPA.

PONTALBA SCHOLARSHIP

Award: If not covered by another state or institutional scholarship, $2,500 non-resident fee exemption. Minimum eligibility requirements: 20-22 ACT (940-1050 SAT) and a 3.0 high school GPA.

CLASSICAL MUSIC SCHOLARSHIPS

A fee waiver covering the cost of in-state tuition and out-of-state tuition, when applicable, full room and board, and a $500 book allowance. Minimum Eligibility Requirements: Eligible to enroll and acceptance into UNO's Classical Music Division Program.

NANCY R. WICKER MEMORIAL SCHOLARSHIP FUND awards one scholarship to an undergraduate woman who is majoring in English. For further information, contact the Chairman of the Department of English.

POLLY THERIOT BAUDEAN MEMORIAL SCHOLARSHIP FUND is open to eligible freshman student applicants who intend to major in either Communications or English and who graduated from Higgins or other West Bank Jefferson Parish public high schools. The scholarship provides tuition and book expense support. Potential scholarship recipient(s) shall have maintained at least a 3.0 grade-point average on a four-point scale in high school and have achieved a composite score not lower than 25 on the ACT in order to qualify for scholarship consideration. Scholarship recipients will be selected by the Dean of the College of Liberal Arts with assistance from the Chairmen of the Departments of Communications and English. For information, please contact the Department of Communications.

RICHARD AND DARLENE STILLMAN ANNUAL SPEAKING COMPETITION was established by Professor Emeritus Richard J. Stillman in 1994 in loving memory of his wife. The competition is open to any UNO undergraduate student enrolled in 12 or more semester hours who has a grade-point average (GPA) of 2.0 or better. Contestants must speak for a minimum of 10 minutes but not longer than 12 minutes. Only visual aids and notes are allowed. There are four prizes awarded annually for the Stillman Speaking Competition: 1st prize–$1,000; 2nd prize–$500; 3rd prize–$250; and 4th prize–$100.

UNO WOMEN'S CLUB SCHOLARSHIP is dedicated to the club's deceased members and their families. The scholarship is valued at $300 per academic year and is awarded to a student of sophomore standing on the basis of scholastic merit and financial need.

AMBASSADOR AWARDS

These awards are offered to continuing UNO students who wish to participate in UNO's Summer study abroad. These scholarships are offered by the Division of International Education. The amount of these awards varies. Awards are granted to students based upon academic standing, financial need, and leadership abilities. Applications can be obtained from the Division of International Education.

ELYSIAN ENSEMBLE SERVICE AWARDS IN MUSIC

A $300 scholarship to be awarded to students at the end of a semester of participation in either the Classical or the Jazz Division of the Department of Music's Ensemble groups.

VALEDICTORIAN RECOGNITION AWARDS

One-time stipend of $2,000 ($1,000 per semester enrolled)

Minimum Eligibility Requirements: Valedictorian of current high school graduating classes, nomination by the Scholarship Selection Committee.

SALUTATORIAN RECOGNITION AWARDS

One-time stipend of $1,000 ($500 per semester enrolled) Minimum Eligibility Requirements: Salutatorian of current high school graduating classes, nomination by the Scholarship Selection Committee.

CREATIVE ARTS SCHOLARSHIPS

Cost of one-half year of full in-state tuition, if not covered by other state tuition-based scholarship, exemption, or waiver Minimum Eligibility Requirements: UNO entrance requirements for undergraduate level; admission into and nomination by either the Music; Film, Theatre and Communication Arts; or Fine Arts departments.

ADVENTURE ABROAD AWARDS

One-time waiver of $2,000 toward the cost of any UNO Study Abroad Program. Requirements: 3.5 cumulative high school GPA, composite ACT score of 23. In addition, students designated as recipients must have earned at least 30 university credit hours for a letter grade with at least a 2.75 cumulative GPA before they use the award.

ADULT STUDENT SCHOLASHIPS

Louisiana residents out of high school for at least five years who have never attended a college or university are eligible for consideration. The scholarship covers the cost of one three-credit-hour course. Applications are available in the Metropolitan College Office.

ARTS SCHOLARSHIPS

These scholarships are available in Jazz Studies; Classical Music; Fine Arts; Film, Theatre and Communication Arts; and Creative Writing. They require either an audition or the submission of a portfolio or manuscript along with a scholarship application. Contact the academic departments for details.

FEE EXEMPTIONS

BOARD OF SUPERVISORS' AWARDS are awarded by Board members to students with at least the average ACT score of the entering freshman class. Each Board member can award up to 20 scholarships. Awards cover the cost of tuition.

CODOFIL exemptions for tuition and nonresident fees are available to those students who are certified as eligible by the director of the CODOFIL program.

CHILDREN OF DECEASED TENURED FACULTY exemptions for full tuition are available for the children of full-time, tenured faculty members that have died while serving their tenure.

CHILDREN OF DECEASED/DISABLED POLICE, and FIREFIGHTERS exemptions are granted to students whose father or mother was killed or seriously injured in the line of duty. The exemption covers full tuition, room and board, and an allowance for books and supplies.

CORDELL HULL FOUNDATION awards are granted to students who can provide certification of sponsorship by the Cordell Hull Foundation for International Education.

DECEASED/DISABLED WAR VETERANS' DEPENDENTS exemptions for full tuition are available to children, aged 16-25, of veterans that were killed or permanently disabled in the line of duty. GOLDEN AGERS exemptions are available for full tuition for senior citizens aged 65 years and older.

NEW ACADEMIC AND FULL-TIME STAFF MEMBERS who have been employed for at least one year are entitled to a tuition exemption for two three-hour courses during the fall/spring and/or one three-hour course during the summer. Student must complete coursework with a grade of "C" or better ("B" or better for graduate students), and course must be job-related.

LOUISIANA NATIONAL GUARD exemptions for full tuition are available to members in good standing in the National Guard. Student must be declared eligible by the National Guard and must be in good academic standing (not on scholastic probation) with the University.

ACADEMIC COMMON MARKET exemptions for the nonresident fee only are available to students certified by letter as eligible by that organization.

ALUMNI SONS AND DAUGHTERS exemptions for one-half of the nonresident fee only are available to students whose parent(s) graduated from an LSU System institution.

MILITARY PERSONNEL AND THEIR DEPENDENTS are exempted from nonresident fee. The exemption is available to students who are currently stationed or who have been permanently stationed in Louisiana, and their dependents. It also extends to dependents of military personnel who have been assigned to duty elsewhere immediately following assignment in Louisiana, provided that the dependent continues to reside in Louisiana. For more information on fee exemptions, contact the Office of Admissions.

STATE SCHOLARSHIPS

Louisiana Tuition Opportunity Program for Students (TOPS) provides financial assistance to students who enroll in a state college or university. Students applying for a TOPS award must submit the Free Application for Federal Student Aid (FAFSA) before June 1, the state deadline, for consideration. All TOPS recipients must be Louisiana residents, have completed the 16 1/2 unit core curriculum, as specified by the state, have graduated from a public/approved non-public high school, have applied for college no later than 1 year after graduation, not have a criminal conviction, and meet the requirements stated under each of the awards described below:

TOPS Opportunity Award:

Requirements: Have a high school grade point average of 2.50 calculated on 16.5 core units, and obtained at least a 20 ACT score.

TOPS Performance Award:

Requirements: Have a high school grade point average of 3.50 calculated on 16.5 core units, obtained at least a 23 ACT score.

TOPS Honors Award:

Requirements: Have a high school grade point average of 3.50 calculated on 16.5 core units, and obtained at least a 27 ACT score.

For more information on state scholarships, contact the Louisiana Office of Student Financial Assistance (LOSFA) at 1-800-259-5626.

REHABILITATION SERVICES

The Division of Rehabilitation is a joint Federal-State Agency that provides assistance to students who are physically or mentally disabled in order to help them become gainfully employed. Assistance in college training can be provided as part of the student's rehabilitation. Any student who feels they have an employment handicap should call the Division of Rehabilitation Services, 838-5180, or write to the Division of Rehabilitation Services, Suite 408, 4051 Veterans Blvd., Metairie, LA 70002.

PRIVATELY FUNDED SCHOLARSHIPS

Scholarships awarded by outside agencies are administered according to the rules and regulations prescribed by the donors as accepted by the LSU Board of Supervisors.

AMERICAN LEGION SCHOLARSHIPS are available to unmarried sons or daughters of members of Metairie Post 175 and are awarded on the basis of merit. The scholarships are valued at $400 per academic year. Applications may be obtained from Post 175 Scholarship Committee.

The **AMOCO PRODUCTION COMPANY** Scholarship that is awarded to an upper level business student who has a minimum GPA of a 3.0 and has shown leadership in student organizations. (This is small financial award since it depends on the interest earned on an endowed fund of $4,600.)

BUSINESS ALMUNI COUNCIL

Scholarships are awarded to the student leadership of the College of Business Executive Council.

CHEVRON OIL COMPANY awards one $500 scholarship each year to a student majoring in accounting.

HANKS/LOGSDON ENDOWED SCHOLARSHIPS are offered by Mr. Carl E. Muckley, an alumnus of the University of New Orleans. He established these two scholarship programs in honor of two UNO professors who were instrumental in his educational experience at UNO. The two scholarships, known as the Dr. Donald K. Hanks Endowed Scholarship Fund in Philosophy and the Dr. Joseph Logsdon Endowed Scholarship Fund in History, will provide senior students majoring in philosophy and history with scholarship and book expense support. The grade-point average maintained by each of the potential scholarship recipients and their financial need shall be the major factors in selecting the recipients for the philosophy and history scholarships. Scholarship recipients will be selected by the Chairmen of the Departments of Philosophy and History with the assistance of the Dean of the College of Liberal Arts and others as deemed appropriate by the Chairmen and the Dean. For information, please contact the Chairmen of the Departments of Philosophy and History.

The **JOAN SHERMAN** Scholarship is awarded to the Louisiana resident junior with the highest GPA majoring in business administration. (The amount awarded is typically around $500-$750.)

NANCY R. WICKER MEMORIAL SCHOLARSHIP FUND awards one scholarship to an undergraduate woman who is majoring in English. For further information, contact the Chairman of the Department of English.

POLLY THERIOT BAUDEAN MEMORIAL SCHOLARSHIP FUND is open to eligible freshman student applicants who intend to major in either Communications or English and who graduated from Higgins or other West Bank Jefferson Parish public high schools. The scholarship provides tuition and book expense support. Potential scholarship recipient(s) shall have maintained at least a 3.0 grade-point average on a four-point scale in high school and have achieved a composite score not lower than 25 on the ACT in order to qualify for scholarship consideration. Scholarship recipients will be selected by the Dean of the College of Liberal Arts with assistance from the Chairmen of the Departments of Communications and English. For information, please contact the Department of Communications.

RICHARD AND DARLENE STILLMAN ANNUAL SPEAKING COMPETITION was established by Professor Emeritus Richard J. Stillman in 1994 in loving memory of his wife. The competition is open to any UNO undergraduate student enrolled in 12 or more semester hours who has a grade-point average (GPA) of 2.0 or better. Contestants must speak for a minimum of 10 minutes but not longer than 12 minutes. Only visual aids and notes are allowed. There are four prizes awarded annually for the Stillman Speaking Competition: 1st prize–$1,000; 2nd prize–$500; 3rd prize–$250; and 4th prize–$100.

UNO WOMEN'S CLUB SCHOLARSHIP is dedicated to the club's deceased members and their families. The scholarship is valued at $300 per academic year and is awarded to a student of sophomore standing on the basis of scholastic merit and financial need.

AIR FORCE RESERVE OFFICER TRAINING CORPS (AFROTC) offers 2-, 21 2-, 3-, and 31 2-year scholarships to qualified applicants who are enrolled in the New Orleans area AFROTC program and who are selected in national competition by AFROTC Headquarters. These scholarships provide tuition

and fees, textbook costs, and a $100 a month stipend to each student for his/her use. Information on how to apply can be obtained from the Department of Aerospace Studies, Tulane University, Social Science Bldg., Room 114, phone 865-5394.

ARMY ROTC offers two- and three-year scholarships to qualified applicants who are enrolled in New Orleans area colleges and universities and are selected in national competition by HQ 3rd ROTC Region at Ft. Riley, KS. This scholarship provides 80 percent tuition assistance or $7,000, whichever is higher, as well as mandatory fees, a percentage of all other fees, a flat rate for textbooks, and a $100 a month stipend up to $1,000 per academic year. Information on applying may be obtained from AROTC, Tulane University, 6309 Freret, 865-5594.

NAVY ROTC offers two-, three-, and four-year scholarships. Four-year scholarship students are selected annually on a nationwide competitive basis through the Chief of Naval Education and Training (CNET). Three-year scholarship candidates are selected by CNET from non-scholarship (college program) students participating in the NROTC unit. Two-year scholarships are selected from local undergraduate applicants. All scholarships include full tuition, university fees, uniforms, textbooks, and a $200 per month subsistence stipend. Scholarship students participate in paid summer training periods and receive commissions in the Navy or Marine Corps Reserve as ensigns or second lieutenants upon graduation. They have a minimum four-year active duty obligation after commissioning, followed by four years in the inactive reserves. For information on applying to become a scholarship or college program midshipman, contact the NROTC Unit, Tulane University, 6823 St. Charles Avenue, New Orleans, Louisiana 70118-5698, (504)865-5104.

For additional information on departmental scholarships and awards, contact the Office of Student Financial Aid.

Student Employment

Many departments and other areas employ students in part-time jobs on the campus. Such employment must be approved by the Office of Student Financial Aid. All part-time jobs are classified in order to provide basic equity in the rates paid students for similar jobs within the University: the rate paid depends on the nature of the work, the student's classification in college, and his or her skills and previous work experience.

Because of the limited number of student jobs, and since applicants, after enrolling, must be interviewed by the various colleges, no applicant may be assured of student employment before reaching the campus.

A student may hold only one part-time job at UNO, and he or she must be enrolled at least half-time during the regular semester, and must maintain at least a C average in order to work on the campus. Freshmen should not seek employment unless absolutely necessary, in order to devote adequate time to adjusting properly to studies at the college level.

Students interested in campus employment should contact the various departments on campus immediately after enrolling so that interviews may be arranged with supervisors.

Federal College Work-Study Program

The Federal Work-Study Program is a campus-based program which provides part-time jobs for undergraduate and graduate students who demonstrate financial need. This self-help aid program allows students to earn money to assist in paying for educational expense, while allowing you the opportunity to gain valuable work experience. Eligibility is based on financial information furnished in the Free Application for Federal Student Aid (FAFSA) which is a part of the Federal College Work-Study Program application.

Special Programs and Instructional Units

Reserve Officers Training Corps (ROTC) Programs

The Reserve Officers Training Corps (ROTC) programs are an important means for the education of military officers and are offered as an option to all interested UNO students. Through these ROTC programs, the student may earn appointment as a commissioned officer while earning his or her degree. Hours of ROTC credit may be counted toward graduation in accordance with policies and programs of the individual academic departments of UNO.

Air Force ROTC

The Air Force Reserve Officer Training Corps (AFROTC) offers two and four year programs through which a student can earn a commission as a Second Lieutenant in the United States Air Force. The four year program is divided into two parts: the General Military Course (GMC) for freshmen and sophomores and the Professional Officer Course (POC) for juniors, seniors, and graduate students.

Students in the General Military Course attend a one hour academic class and a two hour laboratory each week, while the POC students attend a three hour academic class and a two hour laboratory each week. In addition, all students are required to participate in a one hour physical fitness session twice a week. The GMC classes are held on the Tulane, Xavier, and the UNO campuses.

The two year program begins with a five week summer training program at an Air Force Base. Upon successful completion of the summer training program, students enter the POC. Interested students should apply for the two year program no later than February in the spring semester of their sophomore year. Applicants must have four semesters of either undergraduate or graduate work remaining prior to entry into the POC.

Entry into the POC is competitive and is determined in late spring of each year. Prior to entry into the POC, all students in the four-year program must attend a four week field training session and applicants selected for the two year program must attend a five week field training session. Field training sessions are typically held in the summer between the sophomore and junior years.

AFROTC cadets may compete for two and three year scholarships that pay tuition and fees, provide a textbook allowance, and provide $200 per month subsistence allowance. Orientation flights in military aircraft and visits to Air Force Bases are optional parts of AFROTC training. Also available on a volunteer basis is the opportunity to attend the free fall parachute course or powered glider training during the summer at the Air Force Academy. Cadets may also volunteer for Army Airborne Training or a highly selective language immersion program. The language program selects students with three years of college level language to attend a foreign university for 30 days during the summer to study language and culture. Finally, for those selected for pilot training, the Air Force will pay for 40 hours of civilian flight time with sufficient instruction to receive a private pilot license.

Army ROTC

Army Reserve Officer's Training Corps (ROTC) is a comprehensive program of studies through which a student can qualify to be commissioned as an officer in the United States Army, the National Guard, or the United States Army Reserve. Students learn leadership and management skills that will help in any profession in the civilian world. The Army ROTC program consists of a two year Basic Course, which is open to freshmen and sophomores only, and a two year Advanced Course. Non-scholarship students participating in the first two years of ROTC do not incur an obligation to the U.S. Army. A variety of Army ROTC scholarships are offered. These provide tuition assistance, a flat rate for textbooks per semester of $450, and a per month stipend ($300-freshman $350-sophomores $450 juniors $500 seniors, up to 10 months per year). Uniforms and military science textbooks are issued without cost to all students. Scholarship students are also paid for the advanced leadership camp they must attend before commissioning.

Summer training is also available for outstanding cadets. Potential training opportunities include Basic Airborne School, Air Assault School, Mountain Warfare School, and others.

Admission to ROTC is conditional on meeting academic, physical, and age requirements as well as the approval of the

Professor of Military Science. Physical training is an integral part of the ROTC program. Future Army Officers are held to high standards of physical fitness and appearance.

To be commissioned as an officer, a student must complete either the regular four year program, a three year program (whereby the Basic Course is compressed into one year), or a two year program (requiring completion of the summer ROTC basic camp giving the student credit for the Basic Course). Advanced placement for ROTC training may be given to veterans and to students with previous ROTC experience. In addition to these requirements a student must complete at least one course in the areas of military history. That course must be approved by his or her respective Professor of Military Science.

Navy ROTC

The University of New Orleans offers the Naval Reserve Officer Training Corps (NROTC) through a cross-enrollment agreement with the NROTC Unit, Tulane University. There are three general programs through which students can qualify for commissions in the naval service: the U.S. Naval Academy, the NROTC Navy or Marine option programs, and direct accession through Officer Candidate School. The NROTC program offers students the opportunity to earn a commission in the Navy or Marine Corps through the four year, three year, and two year scholarship programs, and through the NROTC College Program. Students matriculating to the University of New Orleans who have not already been awarded at NROTC scholarship may participate in the NROTC College Program and compete for a three year scholarship. These students are selected from applicants each year by the Professor of Naval Science.

NROTC scholarship program students are selected annually on a nationwide competitive basis. They receive four year scholarships that include full tuition, university fees, uniforms, textbooks, and a $200 per month subsistence stipend. Scholarship students participate in paid summer training periods and receive commissions in the Navy or Marine Corps Reserve as Ensigns or Second Lieutenants upon graduation. They have a minimum four year active duty obligation after commissioning, followed by four years in the inactive reserves.

NROTC college program students are selected from local applicants each year by the Professor of Naval Science. Students may apply to participate in the college program any time during their freshman year. They participate in a four year naval science program with one paid summer training period (between junior and senior years) and receive commissions in the Navy or Marine Corps Reserve upon graduation. They incur a minimum three year active duty obligation, followed by five years in the inactive reserves. College program students are furnished uniforms and naval science textbooks and a subsistence stipend of $200 per month during their junior and senior years. Additionally, four year college program students may earn a three year or two year NROTC scholarship.

NROTC two year college scholarship program participants are selected from local undergraduate applicants. To apply, students should contact the NROTC unit on campus no later than the middle of the first semester of the sophomore year or the first semester of the third year if in a five year program. Applicants who are qualified and accepted attend a six week Naval Science Institute at Newport, Rhode Island, during the summer prior to entering the program. Travel expenses are paid to and from the institute, and candidates receive approximately $500 in salary, plus meals and lodging during the training period. Upon successful completion of the Naval Science Institute, the students are enrolled in the NROTC program in the fall. Students then receive full tuition scholarships plus $150 per month in subsistence for the remaining two years of college. Active duty obligations are a minimum of four years of active duty followed by four years in the inactive reserves.

Those students who desire a Navy or Marine Corps commission but do not participate in NROTC programs may apply for the direct accession program that leads to a commission upon completion of degree requirements and Officer Candidate School or Aviation Officer Candidate School.

Requests for additional information should be directed to the Tulane NROTC unit at (504)865-5104.

The Washington, D.C., Internship Program

The Washington, D.C., Internship Program is offered in cooperation with The Washington Center for Internships and Academic Seminars in Washington, D.C. Students who have junior level standing or higher and a grade point average of 2.5 or better are eligible to participate in the Program.

The program is conducted in Washington, D.C., and consists of an internship of four and a half workdays per week, a three hour course one night a week, and a major research paper. Participants can earn 12 credit hours during a fall or spring semester or nine credit hours for a summer session. The Center places applicants in internships of their choice in a governmental agency or department, Congress, the federal court system, an interest group, or other agency in the non-profit, private, or public sector. The Center will also provide housing accommodations, if needed.

Application for the program must be made well in advance of the semester the student plans to participate and must be approved by the UNO program liaison officer. Participants must complete registration at UNO. All but $100 of tuition costs will be forwarded to the Washington Center for application to the Center program fee. The Washington Center will bill participants directly for remaining program costs.

Any student interested in applying for the program should contact his or her adviser or the program liaison officer on campus as early as possible.

Cooperative Education

Cooperative education is a program which integrates students' academic study at the bachelor's, master's, and doctoral level with paid, career related work experiences. The program bridges the gap between the classroom experience and the business world at large. The term "cooperative education" reflects the relationship between the educational institution and the employer, both of which provide students with a total, meaningful education. It should not be confused with other work experiences such as internships, extenships, or practicums. Co-op is unique because it is a structured program, has specific work schedules, and must include paid work expe-

rience related to the student's major field of study.

Students are accepted into the program by meeting certain requirements. Undergraduate students must be full-time, have successfully completed 30 credit hours, have an overall grade point average of 2.5, have a declared major, and be able to commit to the co-op program for at least two semesters. Graduate students must be full-time, have an overall grade point average of at least 3.0, be enrolled in the graduate school, and be able to commit to the co-op program for at least two semesters. Once a student is determined eligible, a match is made based on student career goals and employer needs. Employers are encouraged to interview potential candidates and make decisions based on students' goals and the type of work experience provided. Placement in the co-op program is not guaranteed; however, students are encouraged to interview with many different employers before accepting an offer.

Students will work one of two co-op schedules: parallel or alternating. On the parallel schedule a student works between 15 and 30 hours per week, and attends school full time. On the alternating schedule a student alternates semesters (including summers) of full-time study with semesters of full-time work. Work eligibility is based on employer evaluation and co-op coordinator decisions. The Office of Career Development reserves the right to remove a student from the program at any time.

Once students are selected to work with a participating co-op employer, they are required to register for the appropriate co-op class. Though this class does not carry any university credit, it is an important part of the program. Because cooperative education is a federal program, employers are aware of its successful preparation of college students. The addition of this class to a student's transcript is an immediate indicator to potential employers that the applicant has performed relevant work in his or her chosen field of study.

University Library

The Earl K. Long Library is situated in the heart of the campus and provides a wide array of resources and services to support the learning and research needs of the campus community. The four story building, which houses over 800,000 print volumes and other collections in a variety of formats, also includes group and individual study spaces, electronic classrooms, and computer facilities. Over 100 computer workstations are available, and a set of wireless laptop computers can be checked out by students to use in the building.

While the Library's substantial print collection continues to grow, electronic resources are highly popular and their numbers are increasing. The Library currently provides access to over 15,500 electronic journals and over 28,000 electronic books, as well as over 100 specialized online databases for research in a variety of academic disciplines. Electronic resources can be accessed on or off-campus.

Assistance is available, whether you are in the building or at your home computer. Reference librarians provide research help in person at the Reference Desk, by phone, and through the reference email service. Students are encouraged to make appointments with subject specialists for in-depth research consultations. The Library's Instruction Services provide more structured learning opportunities for students in collaboration with other teaching faculty in various disciplines across campus. Online tutorials (incorporating streaming video) and a virtual tour allow students to learn about the library through an interactive online medium.

Students can check out materials through the Library's Circulation Desk and Course Reserves services. Reserve material is increasingly made available in electronic form, and can be accessed from on or off-campus. Interlibrary Loan obtains materials not available in the Library for students and faculty using an interactive electronic form that facilitates speedy processing. Cooperative agreements permit faculty and graduate students to borrow directly from other academic libraries across the state. Other specialized collections in the Library include Federal Documents, Louisiana and Special Collections, and the Multimedia Collection. The Library's Federal Documents collection is substantial, making available approximately 90% of federal government publications, most of which can be checked out by UNO students and faculty. The Louisiana and Special Collections department contains books, city and state documents, maps, local city directories and other material related to Louisiana and New Orleans as well as original archive and manuscript collections, rare books, the UNO Authors Collection, and original copies of all of the university's theses and dissertations. The staff provides research assistance in the use of these and other resources. The Library's Multimedia Collection provides material in non-print formats such as microfilm and microfiche, videos, DVDs, compact disks, audiocassettes, and even vinyl recordings. The Library website, at http://library.uno.edu, is accessible 24 hours per day for information and links to Library resources and services.

Student Retention

A series of programs and offices interact to develop and conduct programs that support and promote student access and retention. Collectively, these facilitate the retention of students in the University from initial enrollment through graduation.

NEW STUDENT ORIENTATION is an informative campus program for all new freshmen and transfer students. The program, sponsored by the Office of New Student Orientation, is designed to help ease new students' adjustment to the University of New Orleans. The program addresses new student concerns and questions and provides a comfortable and satisfying transition to university life. The program allows new freshmen and transfer students to register early for classes.

UNIVERSITY SUCCESS 1001 is a one credit, letter graded course for first year students to provide them with valuable information about ways to be successful students in college and assists them in their transition into higher education. UNIV 1001 covers topics including time management, study skills, note taking, learning styles, communicating with faculty, test taking, and university resources. UNIV 1001 also incorporates a service learning and New Orleans culture component to provide students with a well-rounded first year experience.

ACADEMIC ORIENTATION 1006 (ACOR 1006) is a one credit, career exploration course that assists students in explor-

ing their interest, abilities, and values in relation to an academic major and career. ACOR 1006 also provides information about internships, resume writing, and interviewing skills. ACOR 1006 is primarily for freshman students, but is open to all undergraduates.

The **LEARNING RESOURCE CENTER** offers academic support services to all students on campus. Together with The Writing Center and the Math Tutor Center, the LRC provides tutoring in writing, math, sciences, foreign language, and other subjects. The center has a 22 station computer lab and a media library of videotapes and software that support several UNO courses. All services are free.

The **DEVELOPMENTAL MATHEMATICS PROGRAM** is responsible for teaching Developmental Mathematics 106 and Developmental Mathematics 107.These courses prepare students for university-level mathematics sequences.

PROJECT ACCESS is a federally funded Educational Talent Search program that annually assists 600 New Orleans and Jefferson Parish disabled persons between the ages of 11 and 27 in successfully graduating from secondary school while preparing for and gaining entry or re-entry into an appropriate college or post-secondary programs.

ORLEANS/JEFFERSON PARISH EDUCATIONAL TALENT SEARCH (OJETS) is a federally funded Educational Talent Search program that annually assists 600 New Orleans and Jefferson Parish students between the ages of 11 and 27 in successfully graduating from secondary school while preparing for and gaining entry or re-entry into and appropriate college or post-secondary programs.

ST. TAMMANY EDUCATIONAL TALENT SEARCH (STETS) is a federally-funded Educational Talent Search program that annually assists 600 St. Tammany Parish students between the ages of 11 and 27 in successfully graduating from secondary school while preparing for and gaining entry or re-entry into an appropriate college or pest-secondary programs.

PROJECT PASS is a federally funded Upward Bound Program that assists fifty disabled New Orleans area high school students in preparing for college through a Saturday program and a summer program of classes, tutoring, counseling, and enrichment activities. Students who complete at least two years in the program before graduation from high school are entitled to participate in the Bridge Program following graduation. This program pays for their enrollment in six hours of course work at UNO during the summer following high school graduation.

STUDENT SUPPORT SERVICES is a federally funded grant program designed to provide counseling, tutoring, instruction, and mentoring to students who are first generation college students and/or low income or disabled. The program assists undergraduates only.

The **UNO UPWARD BOUND PROGRAM** serves ninety-five 10th, 11th, and 12th grade low-income New Orleans high school students each year. Upward Bound students participate in an academic year program that includes academic classes, tutoring, counseling, college tutors, and cultural enrichment activities each Saturday during the academic year. During a six week summer program, students are engaged in academic and enrichment study. Students who complete at least two years in the program before graduation from high school also benefit from participation in the Summer Bridge Program, in which students' fees for enrollment in two UNO college courses are funded by Upward Bound.

The **UNO WRITING CENTER** offers free help five days a week to students who want to improve their writing. Students who come to the Writing Center work with tutors in one-on-one tutoring sessions on any kind of writing problem brainstorming, researching, organizing, and developing ideas for their papers, and editing their papers for grammar and stylistic problems. The Writing Center welcomes papers written in all disciplines, not just in English.

University Computing and Communications

The University of New Orleans operates a complex array of multi-vendor Windows, Linux, and UNIX servers connected to thousands of workstations over a high speed local and metropolitan area network. The following is a brief description of the University's major computing systems and services.

ADMINISTRATIVE SYSTEMS. UNO's HR, Student, and Financial systems from PeopleSoft run on an array of Windows 2003 servers. PeopleSoft systems may be accessed via the campus network or through the Internet. WebSTAR is a self-service component of PeopleSoft that allows faculty, staff and students 7/24 access to their university records.

CAMPUS NETWORK. UNO has a 33 Mb/s commodity Internet (I1) connection and a 45 Mb/s parallel Internet connection for ResNet and backup. The University is also an Affiliate Member of UCAID and has an additional 12 Mb/s connection to Internet2 (I2) sites. Internet2 is a consortium of 200 universities working in partnership with industry and government to develop and deploy advanced next generation network applications and technologies.

Local access to I1 and I2 is provided by UNOnet, which consists of a high-speed multi Gigabit network connecting all main campus computing facilities. Buildings on the main campus are interconnected via a fiber-optic backbone, and within buildings, network connections utilize Category 5 and higher Unshielded Twisted Pair (UTP) cabling to provide connections to approximately 4,500 locations campus wide.

RESIDENTIAL AND REMOTE SITES. Access to I1 and I2 will be available to 1,045 student apartments located on campus during the Fall 2006 semester. UNOnet extends to remote sites throughout the metropolitan area over Metro Ethernet and T1 lines. This includes the Jefferson Center at 3330 Causeway Blvd. in Metairie, and the Downtown Center at 226 Carondelet Street.

DIALUP INTERNET MODEM POOL. UNO provides full graphical Internet access to all students, faculty, and staff via a dialup modem pool, funded in part by the UNO Student Technology Fee. The UNO Modem Pool has 253 active 56Kb/s V.90 dialup modems fully supporting the Point-to-Point Protocol (PPP) through Access Servers.

WIRELESS CONNECTIVITY. WLAN service is available in many student accessible areas including the University Center and the Earl K. Long Library.

LONI. Louisiana's Optical Network Initiative will be available in the Fall 2006 semester and will provide a state-of-the-art network consisting of four 10 Gb/s parallel networks connecting the university to the National Lambda Rail. Primarily for research purposes, LONI will also connect a distributed cluster of super computers at each Louisiana State research institution allowing for advanced collaborative Grid computing based research.

E-MAIL. All enrolled students and faculty and staff are provided with email and modem pool accounts for communication. The university supports SMTP, MIME, and Post Office Protocol Version 3 (POP3) messaging protocols.

HELP DESK. University Computing and Communications operates a Help Desk to provide hardware and software support for UNO faculty, staff, and students. The Help Desk provides the entire university community with a helpful, single point of service for problems and questions about technology. The Help Desk supports Windows (XP, 2003, 2000), Macintosh personal computers, PeopleSoft, Microsoft Office, WordPerfect, Internet Explorer, Mozilla, SAS, SPSS, Mathematica, Matlab, PPP, and Blackboard. The Help Desk may be reached by telephone at 280-HELP (280-4357), via e-mail at helpdesk@uno.edu, or in person in Room 101A of the Computer Center (CC).

LAN ACCOUNTS. All students, faculty, and staff receive a Local Area Network account for access to computers, software applications, and private data storage campus-wide.

LEARNING MANAGEMENT SYSTEM. UNO uses Blackboard to create Web-assisted learning materials. Blackboard allows instructors to augment in-class instruction by providing course materials, handouts, and multimedia presentations from an easy-to-use interface. Additionally, Blackboard has features that accelerate asynchronous class discussions, chat groups, collaboration, and student and faculty interaction.

MULTI-MEDIA SERVICES. Instructional Media provides services and support for AV and classroom presentation systems as well as media production services for telecourses and distance education.

FACULTY AND STAFF TRAINING. The Faculty Staff Resource Center is a drop-in computing lab for any UNO faculty or staff. The lab is located in Room 104B of the Computer Center and has 16 PC and 2 Macintosh computers equipped with scanners, a laser printer, and various multimedia and Web software. The Center offers a variety of workshops for faculty and staff in areas such as Blackboard, MS Office, and Web applications.

PEOPLESOFT TRAINING workshops are offered in a state-of-the-art lab located in Science 2062. This lab is equipped with 24 Pentium PCs, one instructor PC, and one LCD projector.

STUDENT COMPUTING LABS. The UNO technology fee provides students with many computer labs conveniently located across campus. Two types of facilities exist. Student Open Labs are general use facilities that are available to any enrolled UNO student on a drop-in first-come, first-serve basis. Departmental Labs are restricted facilities dedicated for use by students enrolled in specific classes.

STATISTICAL COMPUTING. As a Carnegie Research University, UNO is committed to the process of discovery. To assist graduate students and researchers with quantitative analysis, UNO supports SAS and SPSS for statistical computing. The university has a site license for these packages, and SAS and SPSS are installed on all Student Open Labs managed by University Computing and Communications.

MATHEMATICAL COMPUTING. To assist students and researchers, UNO licenses MATLAB and Mathematica. MATLAB integrates mathematical computing, visualization, and a powerful language to provide a flexible environment for technical computing. Mathematica is the tool of choice for scientific research in engineering analysis and modeling, from simple calculator operations to large-scale programming and interactive document preparation. MATLAB and Mathematica are installed on all Student Open Labs managed by University Computing and Communications.

EDUCATIONAL SUPPORT SERVICES Educational Support Services includes Media Resources, Media Production, and University Testing Services. Staff in these areas assists faculty in acquiring, designing, and implementing supportive programs to enhance classroom instruction.

MEDIA RESOURCES provides the campus with media equipment for classroom instruction, staff presentations, and campus functions as well as housing a video and film library for instructional use. Student, faculty, and staff identification cards are produced throughout the year.

MEDIA PRODUCTION provides a television production studio/electronic classroom for faculty and staff use. Services include instructional television production, distance learning telecourses, computer graphics generation, studio/field-based recording, audio production, off-line editing, and multimedia presentations.

UNIVERSITY TESTING SERVICES provides computerized scoring and item analysis of objective tests. Tests submitted are returned with a computerized report. The Service also scores standardized commercial tests and computerized questionnaires and research data.

UNO Women's Center

The UNO Women's Center was created in 1985 to serve the diverse needs of the women in the university and to affirm the lives of women at the university and in the communities of New Orleans. Located in room 201 of the Earl K. Long Library, the center serves as a referral base and support source for campus and community women. The center offers scholarships, book awards, and a range of programming throughout the year, including workshops on preventing violence against women, educational speakers, and discussion/support groups. The Women's Center also houses a 900 book library, and computer cluster, and it maintains a broad base of periodicals and miscellaneous print materials that pertain to women. Students, staff, and faculty are welcome to drop by the center, which is normally open on weekdays from 9 a.m. to 5 p.m., except on Tuesdays, when the center stays open until 6:30 p.m. For information on programming, services, etc., or to schedule additional hours on evenings or weekends, call (504) 280-7285.

Student Life

The University of New Orleans (UNO) recognizes the important educational role that involvement in student life provides for students. There is a commitment to focus on the development of the whole student by extending the classroom experience through extracurricular activities. By participating in student life programming, you have an opportunity to develop your intellectual, social, leadership, communication and recreational skills, and these skills can assist you both personally and professionally. The Office of Student Affairs is committed to sponsoring and promoting activities which complement your educational experience, and the following information is only a sampling of the offerings that UNO has available. Welcome to the UNO student life community.

Student Government

All regularly enrolled students are members of Student Government (SG), which provides an opportunity for each student to participate in the general community affairs of the University. SG members assume the fullest powers and responsibilities of self-government consistent with the responsibilities and policies of the University administration. In addition, SG maintains a variety of services such as an open forum for students to express ideas and concerns, a subsidized child care center, and an organization resource center. The SG Student Legal Counseling Services provides students with an attorney for assistance with legal advice, document preparation, referral support, and Notary Public services. SG also funds other activities and services on campus such as student organizations programs, UNO Leadership Cabinet, Career Day, Student Needs Survey, and limited travel funds for undergraduate and graduate students who are presenting papers at national professional meetings and conferences.

Student Organizations

UNO registers and recognizes over 100 active student organizations with memberships totaling over 4,000. Types of groups include professional, honors, political, religious, service, social, Greek, special interest, and departmental.

Student Media

The *Driftwood* is a weekly student newspaper containing general news, feature and sports stories, editorials and other columns. All positions are open to students.The annually published literary magazine, *The Ellipsis*, includes stories, poems, photographs and drawings by members of the UNO community and publishes award-winning work by UNO students.

Recreation and Intramural Sports

The UNO Recreation & Fitness Center (RFC) has approximately 87,000 square feet of space dedicated to a variety of fitness and recreational activities, making it the largest recreation and fitness facility on the Lakefront. This full-service, state of the art center offers the latest equipment and technology in a convenient on-campus location. An expansive 17,000 square feet is dedicated to cardiovascular, selectorized- plate-loaded and free weight training. State of the art cardio equipment includes treadmills, upright and recumbent bicycles, rowing machines, elliptical cross-trainers and more. Members can stay entertained and informed while they work out tuned into cardiotheater on one of 11 televisions located throughout the fitness area. Amenities include the Dr. Richard J. Stillman 1/10 mile indoor jogging/walking track; various group exercise classes (including cycling) geared to meet cardiovascular, resistance, flexibility and/or mind body training goals; 2 dry saunas, 2 racquetball courts, 3 basketball courts, snack bar, outdoor deck adjacent to pool, natatorium (25 yard/ 4 lane lap pool) used for water group exercise and lap/recreational swimming. Personal training and Fitness Assessments are available for a fee, to schedule a fitness assessment or a personal training session please call the Department of RIS Fitness Assessment Office at 280-FITT (3488). UNO Students are admitted with a current valid UNO Student ID. Membership to the UNO Recreation and Fitness Center is also available to all Faculty/Staff, Faculty/Staff Retiree, Active Alumni, Research & Technology Park employees, Senior Citizen and Community Members. The hours of operation are 6:00am – 7:00pm Monday – Friday, Saturday 8:00am – 6:00pm and CLOSED on Sunday. Hours of operation and Group Exercise schedule are subject to change as needed.

Intramural Sports

Recreation and Intramural Sports (RIS) administers men's and women's intramural sports, co-recreational divisions, and team sports including basketball, flag football, table tennis, vol-

leyball, softball, badminton and racquetball. Top student teams may be eligible to compete at the LCIRSA State Tournament each semester.

Club Sports

Club Sports are designed to bring students with common interests together. All club sports are organized by students and provide both recreational and competitive programming. Club sports include wrestling, paintball, inline hockey, social dance, sailing, and rugby teams which compete against other local/regional universities.

UNO Spirit Groups

The UNO cheerleaders, privateer dancers, pep band and mascot perform at men and women basketball games, volleyball matches, pep rallies, etc. Contact Athletics at 280-3981 for more details.

Summer Sports Day Camp

The UNO Summer Sports Day Camp provides a curriculum for boys and girls (ages 5-12) that enable them to participate in various sport activities. The program is held during the months of June, July, and August. For more information, contact the Department of Recreational and Intramural Sports at, 504-280-6357 or visit our website at http://ris.uno.edu/

Campus Activities

The Office of Campus Activities gives administrative direction and support to campus activities, student development, campus organizations, Student Activities Council, and fraternities and sororities. Leadership development, officer training, budgeting, registration of student organizations, and general information are available to campus groups. Apartment Referral Service, information on Louisiana landlord/tenant lease regulations, Rideshare (carpooling), Roommate Referral Service, and personal budgeting are some of the services provided by the Office of Campus Activities.

University Center

The University Center is the hub of student life on the UNO campus by housing offices and/or services for Student Government (SG), Campus Activities, Office of Disability Services, Office of Career Development, Dean of Student Affairs, Office of International Students and Scholars, Judicial and Student Assistance, Auxiliary Services, Pharmacy, Student Activities Council, Student Health Services, Campus Dining, the Driftwood, Greek Affairs, Student Organizations, Multicultural Affairs, and Telecommunications.

There are 15 multi-purpose function rooms that can accommodate from nine to 900 persons, a full-service catering department, an a la carte cafeteria, Starbucks, Subway, the campus Copy Center, a convenience store, a television lounge, and a games room. Wireless internet service is available throughout the 1st floor west wing, in all food service dining areas. Post Office boxes are located in the games room. A Hair Salon is scheduled to open this fall.

Also included in the building is the UNO Bookstore with textbooks, magazines, gifts, UNO clothing and souvenirs, fiction and non-fiction books, computer software and supplies, writing and drafting supplies, gift wrappings, greeting cards, balloons for special occasions, and more.

Intercollegiate Athletics

The University of New Orleans offers intercollegiate athletics and is a Division I member of the National Collegiate Athletic Association (NCAA). UNO has temporarily suspended some intercollegiate sports in the aftermath of Hurricane Katrina, but for the 2006-07 academic year will field teams in three men's sports (baseball, basketball and golf)and three women's sports (basketball, swimming and volleyball). UNO was a charter member of the Sun Belt Conference (SBC), which currently includes Arkansas-Little Rock, Arkansas State, Denver, Florida Atlantic, Florida International, Louisiana-Lafayette, Louisiana-Monroe, Middle Tennessee, North Texas, South Alabama, Troy and Western Kentucky. Students who wish to participate in intercollegiate athletics at UNO must meet eligibility requirements. Contact the UNO Athletic Department at (504) 280-6102 for more information. Students with a valid identification card are admitted free to all home athletic events, and may purchase one guest ticket at a discount rate for each home event. Volleyball and basketball games will be held on the main campus at the Human Performance Center, at the northwest corner of Elysian Fields and Leon C. Simon while renovation is being performed on Kiefer UNO Lakefront Arena, which is located on the East Campus at 6801 Franklin Avenue. The Arena houses a 10,000 seat facility for basketball, concerts, and other entertainment events, as well as an auxiliary gymnasium, an Olympic-size swimming pool, a weight room for use by UNO athletes, and the offices of Intercollegiate Athletics.

UNO has a rich athletic tradition. Highlights include: Men's basketball has earned four NCAA tournaments and 11 National Invitational tournament berths, has won 20 or more games in a season 14 times. Women's basketball has won 20 or more games in a season six times and has appeared in post season play on a few occasions. Privateer baseball has won 12 NCAA berths, and holds the distinction of having been the first Louisiana team to go to the College World Series. UNO served as co-host to the 2002 NCAA Volleyball Championships and the 2003 men's basketball Final Four, and served as host of the 2004 Sun Belt Conference Volleyball Tournament.

For up-to-date information on game times and locations, check the Privateers official web site at: www.unoprivateers.com.

National Student Exchange

The University is a member of National Student Exchange (NSE) which provides opportunities for students to study for up to one calendar year at another NSE member college or university with non-resident fees waived. With nearly 190 universities from which to choose, students should be able to find a campus with just the right combination of courses, facilities, and environment to meet personal and academic needs and interests. NSE extends beyond the borders of the United States to include U.S. territories as well as Canadian provinces. Students must be at least sophomore level (30 credit hours)

with a minimum 2.5 GPA at the time of the exchange. Students meet with their UNO advisers prior to the exchange to assure that all credit completed while on exchange will transfer toward their UNO degree program. Information and applications for the exchange are available at the General Studies Program Office in room 214 of the Bicentennial Education Center, or in the Registrar's Office in room 112 of the Administration Building. Additional information concerning the NSE Program and all partner universities may be obtained at http://www.nse.org.

Student Health Services

Student Health Services is committed to providing the highest quality health care to the UNO community. Health Services offers evaluation and treatment of illness and injury, as well as educational programming for health promotion and illness prevention. Primary care is provided to students, on an emergency, appointment, and walk-in basis. Various injections, immunizations, and advice on travel abroad are available to students, staff, and faculty. Comprehensive physical evaluation and diagnostic laboratory testing are available to students.

Feedback is an important part of the health teamwork, and students are encouraged to offer ideas and suggestions to improve Student Health Services. Student Health Services is located in University Center, room 244. Hours are 8:00 a.m.–4:30 p.m. (8:00 a.m.–6:00 p.m. on Tuesday), Monday through Friday. Appointments can be made for evening clinic hours. University Police (280-6666) respond to all campus emergencies 24 hours a day.

Pharmacy

The pharmacy, located in the University Center, room 238, is open from 8:00 a.m. to 4:00 p.m., Monday through Friday. The pharmacy can fill prescription and over-the-counter medication needs on campus, at competitive rates.

Student Sickness and Accident Insurance

The University negotiates a moderately priced sickness and accident insurance policy for students. Students not covered by another sickness and accident insurance policy are strongly encouraged to enroll in this plan. The plan includes savings realized by Student Health Services acting as primary care giver. Additional savings are provided through the use of a preferred provider organization.

The policy is optional for domestic students but mandatory for international students. Dependents can also be covered on this policy. Policy information and claim forms are available at Student Health Services and Student Affairs Office (University Center, Room 260).

Office of Disability Services

The Office of Disability Services (ODS) coordinates campus-wide efforts to provide services for people with disabilities. Governed by a university-wide administrative policy, this office facilitates, coordinates, and/or acts as a resource for accessing accommodations in courses, programs, services, jobs, activities, and facilities, including those that are off-site, such as field trips, satellite campuses, student teaching, internships, and field work. The primary function of ODS is to assist in student learning. Efforts to facilitate this include making use of procedures in place in other departments, allowing accessible application for admission, financial aid, and accessible on-campus housing, selection and registration for classes, seeking academic and career placement counseling, and lectures and labs. Accessibility also ensures full demonstration of knowledge and skills on exams. Likewise, ODS cooperates with other departments to provide certain services directly. These include special campus tours and new student orientations, audio-taped texts and class materials, accommodative testing facilities, and access to tape recorders, personal amplification systems, elevators, and adaptive technology (voice, large print, optical scanners, etc.). Services begin when registered UNO students contact ODS, obtain Office of Disability Services Policy, Procedure, and Resource Manual, provide documentation of a disability, and request assistance. Services end when the student leaves the University or requests removal from the ODS active student file. Services are available to individuals with documentation of need resulting from temporary or long term disabilities in one or more of the following categories: chronic health problems, mobility impairment, learning disability, sensory impairment, psychological impairment, and age-related difficulties.

The Section 504 Compliance Officer is the Director for Disability Services, and is located in the University Center Room 260. The ADA Compliance Officer is the Manager of Facility Renovations and Design and is located in the Facility Services Building. If you have any questions regarding specific responsibilities of these officers, please call (504) 280-6222 or visit the University Center, Room 260.

Office of International Students and Scholars

The Office of International Student and Scholars (OISS) provides support to approximately 750 international students and approximately 100 international faculty and staff from over 90 countries. Specifically, OISS assists international students, faculty, and staff in maintaining their legal status under U.S. immigration law. In addition, the office provides support on such matters as cross-cultural adjustment, personal and financial issues, and academic problems. Programs offered by the OISS include new student orientation and educational workshops on topics of interest to international students, faculty, and staff. OISS produces a regular newsletter, maintains an e-mail listserv, and co-sponsors cultural events such as international coffee/tea hours, and an international festival in cooperation with international student organizations. Specific information about OISS programs is available at the following web address: http://www.uno.edu/oiss/.

Multicultural Affairs

Multicultural Affairs through the Office of Student Affairs assists in developing services and programs to help recruit, retain, and graduate diverse, multicultural students; to meet their academic and social needs; to advise and counsel students and student organizations; and to help the UNO community recognize, appreciate, and respect diversity.

UNO is committed to promoting campus sensitivity to issues affecting diverse students and students of color. This office

serves as liaison for multicultural students with appropriate offices advocating their needs where possible.

Sponsoring and co-sponsoring activities that demonstrate a diverse, multicultural presence is an important part of the mission of this office. Working with students, student groups, faculty, and departments, and with events such as the Martin Luther King, Jr. Convocation, the Native American Pow Wow, the annual Jewish Seder, the Black Heritage Ball, a Brown Bag Dialogue Series, and a Multicultural Book Discussion Series are annual or alternate-year possibilities. For applicants who have been convicted of a felony, the office facilitates the process of their becoming enrolled at the University where appropriate.

Children's Center

The University operates a learning center for children one to five years of age. The center is open to children of students, faculty, and staff on a space-available basis. Hours of operation are Monday-Friday, 7:30 a.m.-5:30 p.m. The Center is located on the main campus. For further information, call (504) 280-3131.

Student Housing

Residence Facilities

PRIVATEER PLACE: Privateer Place is a beautiful apartment-style community located in the northwest corner of the campus. Offering the following accommodations and amenities in nine and 12 month leases: four bedroom, two bath apartments, furnished (rented per person); two bedroom, 2 bath apartments, furnished (rented per person); and efficiency apartments, unfurnished (rented per unit).

Furnished units have a bed, student desk, desk chair, nightstand, and bachelor's chest of drawers in each bedroom. Each common living area includes a couch, matching chair, coffee table, end table, and built-in dining table with chairs. Rates include utilities, garbage, and access to all on-site amenities including coin-operated laundry facilities, swimming pool, hot tub, clubhouse for student gatherings, and a sand volleyball court.

Privateer Place is open during academic breaks, and tenants are able to stay in apartments throughout the lease term. For more information about housing at Privateer Place, call (504) 282-5670.

BIENVILLE HALL: An eight-story, air-conditioned coeducational residence hall for single students with male and female students in separate suites on the same floor. Features include suite arrangement, double occupancy (shared bathroom), utilities, local telephone service with call-waiting (resident must provide phone), on-going student activities, cable television, recreation facilities, coin-operated laundry, and a credit per fall/spring semester to be used for meals at all campus dining locations including the Cove, the convenience store, and the University Center. (No need to carry cash, just use your university I.D. when making food purchases).

City bus lines connect the campus with various parts of the city, two of these buses stop directly in front of Bienville Hall.

Meal programs in Bienville Hall during the summer are optional. Students interested in purchasing a campus dining declining balance account, should contact Campus Dining Services or visit the office located in the University Center, room 250. For more information about Bienville Hall, contact: the Student Housing Office at 280-6402; University of New Orleans; New Orleans, Louisiana 70148.

Please note: admission to the University of New Orleans does not guarantee on-campus housing accommodations. Students must apply separately for on-campus housing. Accommodations are not guaranteed until a student is officially accepted for admission to the University.

Counseling Services

The Counseling Services supports the educational aims of the University by aiding students in their personal development and psychological growth and by encouraging a positive environment within the academic community. The services offered to students are directed at assisting in the resolution of personal problems and clarifying conflicts of vocational interests which may interfere with career and educational objectives. A broad range of professional counseling services is offered, including problem assessment, crisis intervention, psychological and career testing, counseling, psychiatric evaluation, individual and group counseling as well as psycho-educational workshops and seminars. These services are designed to be short term in nature, but students needing longer term or specialized services will be referred to local providers. Most services are provided with minimal charges. Psychological and career testing fees are reasonable. All services are confidential.

The professional staff in the Counseling Services are licensed clinicians or are supervised by licensed clinicians. Advanced graduate students in various behavioral sciences are affiliated with the department. These trainees provide counseling services as part of their internship or practicum and are supervised by licensed professional staff members.

Appointments are encouraged and can be made by calling the office. Office hours are 8:00 a.m. to 4:30 p.m. Monday through Friday and until 6:30 p.m. on Tuesdays. The Counseling Services is conveniently located on the East Campus, at the corner of Franklin Avenue and Leon C. Simon Boulevard, in Room 4 of the Alumni and Development Building. There is easy access parking and public transportation.

Judicial Affairs, Student Assistance, and Parking Violations

The office addresses concerns and problems related to the University. There are a number of ways this office assists. The first way is through the "UNO Judicial Code" which can be found in the UNO Policy Manual/Student Handbook. The philosophy of the code is one of civility and education. The University expects exemplary behavior from students in all phases of college life. It is the responsibility of students to familiarize themselves with the specific rules and regulations governing student behavior and to maintain the highest degree of integrity–both in and out of the classroom.

Student Assistance is the second function. Often students experience problems within the university setting. Through consultation with the staff, conflict resolution is attempted.

Additionally, if any UNO community member is experiencing a crisis or is a victim of an on-campus crime, this office can provide help.

The third function of the office is to review parking and traffic appeals. The brochure of related information can be obtained at University Police or from this office.

Veterans' Affairs

The Office of Veterans' Affairs provides information on educational benefits for veterans attending UNO. Veterans eligible for educational benefits are urged to establish contact with this office when they arrive on campus. For further information call (504)280-6992, or visit the office within the Administration Building, Room 112F.

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Student Assistance is the second function. Often students experience problems within the university setting. Through consultation with the staff, conflict resolution is attempted. Additionally, if any UNO community member is experiencing a crisis or is a victim of an on-campus crime, this office can provide help.

Office of Career Development

The Office of Career Development, a department within the Division of Student Affairs, offers career related information and assistance for students and alumni of the University of New Orleans. Students can register with the office by the way of the Internet 24 hours a day, seven days a week. Once registered, students and alumni have access to PrivateerTRAK (powered by Monalling (504) 280-6225 or visiting the office in the UC, room 268.

University Regulations

General Educational Goals of the Undergraduate Program

The University of New Orleans provides its undergraduate students equality of access to educational opportunities, and seeks to nurture in them scholarship, academic excellence, the ability to work productively with others, and qualities of leadership for citizenship in a modern urban environment.

The General Degree Requirements established at the founding of UNO and most recently modified by a 1986 mandate of the Board of Regents further these goals by providing a common general education for all who complete undergraduate program. All students completing a baccalaureate degree attain appropriate competencies, as follows:

1. to communicate effectively in oral and written English;
2. to read with comprehension;
3. to reason abstractly and think critically;
4. to understand numerical data and statistics;
5. to understand the scientific method;
6. to be familiar with key technological and informational applications;
7. to learn independently;
8. to recognize and appreciate cultural diversity;
9. to understand the nature and value of the fine and performing arts;
10. to develop a personal value system while retaining a tolerance for others; and
11. to understand the American political and economic system.

GENERAL REGULATIONS

Registration

No one may register in any semester or summer session after the official registration period indicated in the University calendar. Special permission will be granted only in those cases in which unusual extenuating circumstances have made registration at the proper time impossible. The University does not guarantee that during a given semester a student will be able to schedule every class which he or she might be required to take or wish to take. No student will be permitted to remain in class unless the instructor has received from the University Registrar evidence of proper registration. A student desiring to change from one college to another after registration has been completed must have the consent of both college deans concerned.

Changing Majors

A student desiring to change from one college to another after registration has been completed must have the consent of both college deans concerned.

Cross-Enrollment Agreements between UNO and Southern University in New Orleans, Delgado Community College, and Elaine P. Nunez Community College

Through separate formal agreements between UNO and Southern University in New Orleans and Delgado and Elaine P. Nunez Community Colleges, UNO students may register for a limited number of classes at each of these institutions when they register at UNO. Students should contact the office of their dean or the Registrar for information regarding the procedures to be followed in this process.

Concurrent Registration

A student registered at UNO may not receive degree credit at UNO for any work taken concurrently at another college or university or by correspondence study, without prior written approval of his or her dean. Any UNO student who wishes to take courses at another college or university during a summer, or a regular semester when not enrolled at UNO, must also obtain prior approval of the dean.

Change of Address

At the time of registration, a student is required to verify his/her current mailing address. If there has been an address change, the new address must be changed on the web through UNO's homepage.

The University will consider all correspondence mailed to a student at the address currently on file to have been received unless it is returned to the sender.

Credits and Semester Hours

The value of each course of instruction and the amount of work required for graduation are stated in terms of semester

hours. A semester hour of credit represents one hour of class work, or two or more hours of laboratory or recitation work per week for a semester (more per week during the shorter summer session).

Enrollment Classification Full-time Students

Those undergraduates enrolled for twelve or more hours, or those graduate students enrolled for nine or more hours of resident credit in a regular semester, or (for both undergraduate and graduate students) six or more hours of resident credit during the summer session are classified as full-time.

A candidate for graduation may request to be classified as a full-time student in the semester or summer session during which he or she is scheduled to complete the requirements for a degree, even though the number of hours scheduled is less than that ordinarily required for classification as a full-time student. A student thus classified full-time is required to pay the fees appropriate to the full-time classification.

Part-time Students

Students who do not qualify as full-time students as defined in the paragraph above are part-time students. A part-time student is subject to all University rules concerning registration, attendance, scholarship, and conduct.

Auditors

Regularly enrolled students at UNO may be admitted to classes as auditors by obtaining written permission from the chair of the department in which the course is taught and the dean of the college in which they are enrolled. Others must obtain official admission to the University in addition to obtaining permission as indicated. The fee for auditing a course is the same as for enrolling for credit. Auditing fees are not refundable.

Auditors will not receive university credit, and will not be permitted to take an advanced standing examination on audited work. Upon certification by the faculty member in charge of the course that the student did not actually attend, notation that the student audited the course will be stricken from the record without right to a refund of fees.

Students may not change from audit to credit after the last day to add a course. With permission of their dean, they may change from credit to audit within the first 15 class days of the semester (7 class days in the summer).

Schedule Changes

Adding Courses for Credit

Courses may be added for credit only during the first week of classes in the fall and spring semesters and the first three days of classes in the summer session.

Dropping Courses

Courses dropped through the 14th class day will not be entered on a student's record. A grade of W will be entered for each course dropped after the 14th class day through the end of the first 53 class days. See the Summer Class Schedule Bulletin for summer session drop dates. After that date a student may not drop a course. Exceptions must be authorized by the student's dean and will be granted only under the most extenuating circumstances. Unsatisfactory academic performance in itself is not an extenuating circumstance. See the University Calendar for exact dates.

A student may be dropped, at the discretion of the dean of the college, from any course in which the student is ineligible. A student may also be dropped by the University from his or her classes if all instructors report non-attendance.

Changing Sections

Section changes, if permitted, are subject to the same time limitations as the adding of courses.

Attendance Regulations

Students are expected to attend all classes regularly and punctually. A student who is not present when attendance is checked in a class is considered absent.

1. A student must attend all classes in any course for which he or she is registered. All unexcused absences in such a course are counted against a student's attendance record.
2. Any student registered in a college may, at the discretion of the dean, be placed on attendance probation. The dean is further authorized to drop from the rolls of the University any student who violates this attendance probation.
3. A student placed on academic probation is automatically placed on attendance probation.
4. A student on academic or attendance probation is expected to attend all classes and an absence from any class may be reported to the appropriate administrator.
5. Each instructor shall report all cases of absence from class which, in the opinion of the instructor, jeopardize the student's chances of satisfactorily completing the course.
6. A student dropped from the University for violation of attendance probation will not be eligible to re-enter the University until the expiration of the next regular semester, at which time he or she may be readmitted upon the approval of the dean.

University Closures

If the University must close due to unexpected circumstances, faculty and students may have to make up missed class and laboratory time. In some circumstances resulting in closure of the University, the Provost will determine how classes will be made up. In other circumstances, the methods for making up missed classes and laboratories will be made up with extra assignments and readings, additional days of class or laboratory, additional class time, or in other manners to be determined.

Withdrawal from the University

Students may resign from the University by dropping all their classes utilizing WebSTAR. If the resignation is recorded during the first 14 class days of a regular semester, the courses will not be listed on the student's official record. If the resignation occurs after the 14th class day, but no later than the 53rd class day, the grade of W will be recorded in each course.

See the Summer Class Schedule Bulletin for summer session resignation dates. After that date a student may not resign from the University. Exceptions must be authorized by the student's dean and will be granted only under the most extenuating circumstances. Unsatisfactory academic performance in itself is not an extenuating circumstance.

Final Examinations

Final examinations are required and shall be held at the end of each semester or summer session in accordance with the schedule issued by the Office of Academic Affairs. When final examinations are inappropriate because of the nature of the course, exceptions to this requirement may be made upon approval of the appropriate dean and the Office of Academic Affairs.

Grade Reports

The University reports grades at mid-semester for all freshmen and at the end of each semester for all students. Only the grades reported at the end of the semester (final grades) are used in the computation of the student's grade-point average. Mid-semester grades are simply an indication of the student's progress and are not calculated in the summer session.

The University does not mail final grade reports. Students may access final grades through WebSTAR. Mid-semester grades are available to freshmen through their college office.

Grade Appeal Policy

The course final grade appeal policy provides the student with a safeguard against receiving an unfair final grade in a course, while at the same time respecting the academic freedom of the instructor which is vital to the integrity of the teaching process at the University of New Orleans. The course final-grade appeal process strives to resolve a dispute between student and instructor in the assignment of a course final grade at the collegial level. The intent is never to embarrass or disgrace students or instructors, nor to assess penalty or retribution on any party when mistakes are discovered, but instead to provide a neutral forum for the discussion of differences of opinion. Every student has the right to have a request for consideration of his or her final grade reviewed by the chair of the department and a departmental Grade Appeal Committee. The course final-grade appeal is confined to charges of unfair action against an individual student and may not involve a challenge of an instructor's class grading standard. It is incumbent on the student to substantiate the claim that his/her final grade in the course represents unfair treatment, compared to the standard applied to the remainder of the class. Only the final grade in a course may be appealed.

Credit for Repeated Courses

When a student is permitted to repeat a course for credit, the last grade earned shall be the one which determines acceptability the course for degree credit. A student who has earned a C or better in a course may not repeat that course unless 1) the catalog description indicates that the course may be repeated for credit, or 2) the student's dean gives prior approval for some special reason. If a course is failed at UNO, it must be repeated at UNO with a satisfactory grade in order to constitute degree credit.

Transcript of Record

The official permanent academic records for all UNO students are in the custody of the Office of the Registrar. Release of these records is protected by the "Family Educational Rights and Privacy Act." Transcripts of the academic record may be secured by the individual personally, or will be released on the student's written authorization. Transcripts cannot be issued until the student or former student has settled all financial obligations to the University and has submitted all required transcripts from other colleges attended. A fee of $5 will be charged for each copy of the transcript. Transcript processing requires a minimum of three working days. Official transcripts can only be released to a third party.

Eligibility to Represent the University

No student will be permitted to represent the University in intercollegiate athletics unless he or she is classified as a full-time student. Students may participate in dramatic, literary, musical, or other organizations (including Student Government) as members, substitutes, or officers so long as they are enrolled for at least six semester hours unless otherwise indicated by a particular unit or organization.

The Student Identification Card

The Media Resources Office issues to each student a permanent identification card, including a photograph, and a student number. This card will be used for the entire duration of the student's enrollment at the University. The card is required for borrowing library books, cashing personal checks, admission to athletic and social events, selling used textbooks, Testing Services, meal plans, and other official purposes. Fraudulent use of the ID card will result in disciplinary action. The card is issued to the individual student and must not be loaned to another person for any reason. Any University official having just cause has the right to request that a student show the identification card for identification purposes. Upon such a request by a University official, the student is required to comply.

ID cards are made during registration and on a continuous basis thereafter. Check with Media Resources for location.

Family Educational Rights and Privacy Act

Annually, UNO informs students of the Family Educational Rights and Privacy Act of 1974 (Public Law 93-380). This Act, with which the institution complies fully, was designed to protect the privacy of educational records, to establish the right of students to inspect and review their educational records, and to provide guidelines for the correction of inaccurate or misleading data through informal or formal hearings. Students have the right to file complaints with the Family Policy Compliance Office, U.S. Department of Education concerning alleged failures by the institution to comply with the Act.

University policy explains in detail the procedures to be

used by the institution for compliance with the provisions of the Act. Copies of the policy can be found in the following offices: Admissions, Chancellor's Office, Academic Affairs, Office of Business Affairs, Student Affairs, Student Personnel Records, each college/school/division/dean's office, each academic department office, and on the web at http://academicaffairs.uno.edu/.

Questions concerning the Family Educational Rights and Privacy Act may be referred to the University Registrar.

University Discipline

The University expects of its students a high degree of honor in all phases of college life. It is the responsibility of all students to familiarize themselves with the rules and regulations governing student conduct as published whether in print or on the web, in the UNO Student Handbook and other official publications.

The authority structure for administrating the judicial code is the Chancellor, through the Dean of Student Life to the Assistant Dean for Judicial and Student Assistance. Please refer to the section on Judicial and Student Assistance in this catalog and to the UNO Student Handbook for more details

Statute of Limitations

In the absence of any designated time limits in documents on policies or procedures, the University imposes a time limit of three years for the initiation of any request for an exception to its rules or regulations.

UNDERGRADUATE REGULATIONS

Classification

Classification of undergraduate students is made in the Office of the Registrar based on the number of credits and quality points earned, and is revised, as may be necessary, at the beginning of each semester.

The rules governing the classification of undergraduate students are:

Freshmen: Students having fewer than 30 hours of credit.

Sophomores: Students having at least 30 hours of credit.

Juniors: Students having at least 60 semester hours of credit.

Seniors: Students having at least 90 semester hours.

Maximum and Minimum Work

The normal freshman schedule in a regular semester should range between 12 and 15 hours. A student whose record shows poor preparation for college work (placement in English below 1157 or Developmental Math) must not be registered for more than 15 hours and may be advised to limit the academic load to fewer than 15 hours. Students on scholastic probation are limited to 13 semester hours in a regular semester and seven hours in a summer session.

The number of semester hours of work required for the completion of each year of the curricula of the colleges or schools is established by the particular college or school. Students may be permitted to register for more than 19 semester hours of work provided they have maintained an overall 3.0 (B) average and have not fallen below a grade of C in any subject during the preceding semester; but in no case will any student be permitted to register for more than 21 semester hours of degree credit.

A student who for any reason is unable to manage the full work prescribed in his or her curriculum may be permitted by the dean of the college to register for a lesser number of semester hours, but no student will be considered full-time who is registered for fewer than 12 semester hours of work (six hours in the summer session). A student doing unsatisfactory work because of an overly burdensome schedule may be required by the dean of the college to drop one or more courses, provided such action does not reduce the student's academic load below full-time status.

In the summer session, six semester hours is the minimum full-time load, and the maximum load permitted is 12 semester hours.

Non-native Speakers of English

All applicants who are from countries other than the United Kingdom, Australia, Canada (except Quebec), New Zealand, Ireland, and certain Caribbean Islands, must submit scores from the Test of English as a Foreign Language (TOEFL). The minimum required score for Graduate School admission is 550 composite and 55 listening comprehension on the paper test and 213 composite and 21 listening comprehension on the computer test. Please note that some graduate departments require a higher TOEFL score. For undergraduate applicants, the minimum required scores are 525 (paper test) or 195 (computer test).

Nonnative speakers of English who are admitted to UNO and whose score on the English part of the ACT is 17 or below, or who have not taken the ACT must take the English as a Second Language (ESL) Placement Test. On the basis of these test results, students will be placed in the intensive ESL program (English 182, 184, 186) or in one of the other English composition courses (English 150, 187, 188, 189, 1157). A student placed in English 182 may not take any other credit course. A student placed in English 184 may take an additional course in another subject, and a student placed in English 186 may take one or two courses in additional subjects. These restrictions apply whether or not the student enrolls in the intensive ESL courses.

International students considering attending the University of New Orleans should know about the Intensive English Language Program (IELP). This excellent non-credit program will help students sharpen their English language skills, as well as teach them about American culture so that they feel comfortable and prepared for their courses. The IELP staff assists students in the UNO application process. An added benefit of studying in the IELP is that the students do not need to take the TOEFL to be considered for admission to UNO.

General Degree Requirements

To become eligible for a baccalaureate degree from UNO, a student must fulfill the following General Education Goals mandated by the Board of Regents:

1. Complete the following courses:
   a. English - English 1157, and 1158 or 1159, with a grade of C or better. A passing grade in the English 1158 Proficiency Exam is required for all degrees.
   b. Literature - six hours of the study of literature.
   c. Mathematics - six hours at or above the 1000 level. Each student must pass a Math Placement Test in lieu of ACT/SAT.
   d. Science - 11 hours, including eight hours of one science (two of them laboratory) and three hours of another. One of the sciences must be Biology and the other one must be Chemistry, Geology, or Physics.
   e. Humanities and Arts - six hours; to include three hours to be taken from the departments of Film, Theatare and Communication Arts; English[1]; Fine Arts; Foreign Languages (above the level of 1001 or 1011)[1]; Music; or Philosophy and three hours to be taken from the departments of Fine Arts, Music, or dance or theater-related Film, Theatre and Communication Arts courses.
   f. Social Sciences - six hours from Anthropology, Economics, Geography, History, Political Science, Psychology, Sociology, or Urban Studies[2]. NOTE: At least six of the hours in Arts, Humanities, and Social Sciences must be courses at or above the 2000 level.
   g. Computer Literacy - Each student should develop a reasonable competence in those computing techniques most relevant to his/her major program. This requirement may be fulfilled by one of the following:
      i. Successful completion of Computer Science 1000 or other computer science courses of three credits or more.
      ii. Advanced standing credit for Computer Science 1000, earned by successful completion of an examination administered by the Department of Computer Science.
      iii. Successful completion of a course or series of courses, within the student's major department, which has been approved by the University Courses and Curricula Committee as fulfilling the computer literacy requirement.
   h. Oral Competency - Each student should demonstrate competence in the techniques of oral communication relevant to his/her major program. This requirement may be fulfilled by one of the following:
      i. Successful completion of an approved course in the student's major department or college that requires a demonstration of oral competence as a condition of receiving a passing grade in the course.
      ii. Demonstration of oral competence in an approved course in the student's major department or college that does not require oral competence as a condition of receiving a passing grade. If a student demonstrates oral competency in such a course, an entry shall be made on his/her transcript that oral competency has been demonstrated regardless of the final grade in the course. If a student fails to demonstrate oral competency in the approved course(s) offered by a student's major department or college, the student may take an approved course outside his/her major college as a means of meeting the general degree requirement for oral competency.
2. Earn a minimum of 120 hours[3] including at least 25 percent of the credit hours for the degree through instruction offered by the university and
3. Achieve a quality point ratio of 2.0 or better in:
   a. all work attempted,
   b. all work taken at UNO,
   c. the college of the major,
   d. the major subject, and
   e. the semesters containing the last 60 hours of courses (excluding credit earned through Advanced Standing Examinations, Advanced Placement, Armed Services courses, correspondence courses, etc.) offered for the degree.

Since each curriculum has requirements in addition to those listed above, students should consult the appropriate section of this catalog to determine such additional requirements and restrictions as may apply to the particular degree program.

All students, including transfer students, must pass the University proficiency exam in composition; it is administered twice each regular semester by the Department of English and as the final examination in English 1158. A transfer student who presents credit in English 1158 from another university must validate that credit by passing the examination within the first two regular semesters of attendance at UNO and may take the examination no more than twice. Failure to pass the exam means that the student forfeits the transfer credit in English 1158 and must enroll in English 1158 in their next regular semester.

[1] Any literature course in English or Foreign Languages used to fulfill the literature requirement listed in (b) above shall not count toward the Humanities requirement.

[2] Other subjects under the Social Sciences in Areas of Concentration may not count for this General Degree Requirement.

[3] No more than one-half the semester hours required for the completion of a degree program may be transferred from a junior college.

[4] Enrollment in classifications which do not lead to a degree from UNO will not be counted toward those two semesters. Such classifications currently include AUD, CHAR, EX, MCAH, MCAN, MCBN, MCDS, METR, and MS.

[5] Writing, linguistics, and grammar studies are not considered literature.

Graduation Requirements

Generally, a student must meet all the requirements for a degree outlined in one catalog. The student may elect any catalog in force during his or her enrollment at the University, provided enrollment is continuous. A student who breaks enrollment (either voluntarily or by compulsion) for five calendar years may not elect a catalog earlier than the one in

force at the time of re-entry. Under no circumstances may a catalog more than 10 years old be used.

In some instances, program or college graduation requirements may be imposed that are not included in the catalog under which the student has chosen to graduate. These additional or different requirements are well publicized by the colleges involved. There are several requirements which must be completed by all students prior to graduation. The student must:

1. complete all academic requirements for a degree. This includes both the general degree requirements and the particular program of study in which the student is enrolled.
2. ascertain, through the college of the major, that his or her academic record is accurate and complete. This should be done not later than one semester prior to graduation.
3. submit an application to the Registrar's Office for the degree during the registration period of the last semester in residence. The student will be required to make this formal application and state the exact name to appear on the diploma.
4. pay the diploma fee at the last registration. A student who has previously paid a diploma fee, but who failed to graduate at the time expected, must pay an additional $5 to cover the cost of printing a new diploma.
5. have all financial indebtedness to the University cleared prior to graduation.
6. have an exit interview for financial aid, if applicable.

A student who does not follow and complete the above requirements and procedures will not be allowed to graduate.

Requirements for Second or Subsequent Baccalaureate Degrees

Students earning two majors simultaneously at UNO

Students who wish to earn two majors simultaneously in the same college at UNO may do so, provided that they:

1. complete all requirements for each major.
2. meet all quality point average and grade requirements applicable to each major.
3. complete requirements for both majors before receiving the baccalaureate degree.

(Any student who receives a baccalaureate degree after completing the requirements for only one major must comply with the guidelines for a second baccalaureate degree.) Students wishing to double major in subjects in different colleges may do so provided both majors lead to the same degree designation (e.g., Bachelor of Arts, Bachelor of Science, etc.). In these cases, however, students should check with each college to decide whether they would be best to pursue the dual major or the dual degree.

Students earning two degrees simultaneously at UNO

Students who wish to earn two baccalaureates at UNO simultaneously may do so, provided that they:

1. complete all requirements for both degrees.
2. earn at least 25 percent of the degree requirements for each degree in residence.
3. meet all quality point average and grade requirements applicable to both degrees[1].
4. develop degree plans with both colleges if the two degrees being sought are in different colleges.
5. cannot declare a minor in the area in which the other baccalaureate is being earned.

(Any student who receives a baccalaureate degree after completing the requirements for only one major must comply with the guidelines for a second baccalaureate degree.)

Requirements for Second or Subsequent Baccalaureate Degrees

Students who hold a baccalaureate degree from UNO or an accredited institution may earn a second baccalaureate degree provided they:

1. complete additional course work applicable to the degree equivalent to at least 25 percent of the degree requirements for the second or subsequent degree.
2. complete all general degree requirements and subject requirements for the second degree.
3. meet all quality point average and grade requirements and subject requirements for the second degree.
4. complete either a B.A. or a B.S. with a double major. (There is no double major with a B.A. and a B.S.)

Students wishing to earn baccalaureate degrees subsequent to the second degree must satisfy the set of requirements listed above for each major in which a degree is sought.

NOTE: In determining eligibility for degrees with honors, all grades earned by the student are used.

Residence Requirements

A transfer student who enters with advanced standing from another university and becomes a candidate for a bachelor's degree at UNO must fulfill a minimum residence requirement of two semesters (or four summer sessions) at UNO and must earn at least 25 percent of the credit hours required for the degree through instruction offered by the university. For all students, the last 25 percent of all coursework must be taken in residence while enrolled in the college from which the degree is to be earned.

Areas of Concentration

The University recognizes four general areas of concentration. These areas, with the specific subjects falling under each one, are:

Humanities
Film, Theater and Communication Arts

Sciences
Biological Sciences
Chemistry

English
Fine Arts
Foreign Language
Journalism
Music
Philosophy
Social Sciences
Anthropology
Economics
Education
Geography
History
Paralegal Studies
Political Science
Psychology
Sociology
Urban Studies
Women's Studies
Computer Science
Engineering
Environmental Science and Policy
Earth and Environmental Science
Mathematics
Physics
Business Administration
Accounting
Economics
Finance
Hotel, Restaurant and Tourism Administration
Management
Marketing

The above areas of concentration are referred to in specific curricula listed elsewhere in this catalog. Arts & Sciences (A&S) courses may count toward humanities or social sciences general degree requirements for graduation credit. Social Sciences in Paralegal Studies (SOSC/PL) cannot be used to fulfill general degree social sciences requirements.

Degrees with Honors

Baccalaureate degrees are awarded with honors on the basis of two criteria, the curriculum undertaken and grade-point average.

UNIVERSITY HONORS

This distinction is earned by students who are admitted to and complete the requirements of the University Honors Program. Through special sections of regular courses, specially organized interdisciplinary courses, and independent study and research, members of the Honors Program acquire an undergraduate education that testifies to their superior academic ability and the extensive educational resources of UNO.

To graduate with University Honors, students in the Honors Program must: earn 30 semester hours of honors credit; concurrently enroll in and complete Arts and Sciences 1119 and either English 1159 or English 2151; complete a Senior Honors Thesis; and attain a 3.25 grade-point average in all coursework attempted and a 3.5 grade-point average in all courses in the major. Students who wish to participate in the Honors Program should contact the Director of the University Honors Program.

DEPARTMENTAL HONORS

Some subject areas offer programs which lead to the bachelor's degree with honors in the particular subject. Requirements include a 3.25 grade-point average in all coursework attempted and a 3.5 grade-point average in all courses in the major; completion of specified courses in the major; and completion of a Senior Honors Thesis. Details for each major are discussed in the Major Programs section of the catalog. Students wishing to earn departmental honors should contact the Director of the University Honors Program.

HONORS DEGREES

Baccalaureate degrees are awarded summa cum laude to students whose grade-point averages fall within the range of 3.960 to 4.000, magna cum laude to students whose grade-point averages fall within the range of 3.860 to 3.959, and cum laude to students whose grade-point averages fall within the range of 3.760 to 3.859.

The grade computation is based on all graded courses. Transfer students' overall average as well as their UNO average must meet the above grade-point average requirements. Suspended grades and grades deleted by "Scholastic Amnesty" will be used in computing honors.

COLLEGE HONORS/DEAN'S LIST College honors are awarded each semester with the publication of the Dean's List for each division, college, or school. To be included on the Dean's List, a student must have:

1. earned at least a 3.5 grade-point average for that semester while attempting 12 or more semester hours of work; or
2. earned at least a 3.5 grade-point average for that semester and completed a total of at least 60 semester hours of credit with an overall grade-point average of 3.5 or better.

Advanced Standing Examinations

Students of superior ability and preparation and students who have already gained fundamental knowledge of subjects offered at the University may be permitted to take Advanced Standing Examinations in specific courses which, if passed with satisfactory grades, will enable the student to receive degree credit. Advanced Standing Examinations are also referred to as credit examinations.

Requests for permission to utilize such examinations are initiated in the office of the dean of the college, school, or division in which the student is enrolled, and permission may be given subject to the following conditions:

1. Credit by Advanced Standing Examinations cannot be used to reduce the University's minimum residence requirement.
2. The student must have been admitted to the University and must be in good standing. If the examinations are taken while the student is not enrolled in the University, credit will be granted when he or she is registered for resident study.
3. requesting authorization to take an Advanced Standing Examination, the student must obtain permission from the chair of the department offering the course and the dean of the college in which the course is taught. After such permission is granted and the fee, if any, is paid, the University Registrar will issue an official permit.
4. A student may not take an Advanced Standing Examination in a course which he or she has audited, nor in which a grade has been earned. A student may take an Advanced Standing Examination in a given course only once.

The administration of the examinations is also subject to the

following regulations:

1. The examination must ordinarily be taken and the grade submitted within 30 days of the date of initiation of the request.
2. If a grade of C or higher is earned on the examination, a mark of P and regular credit in the course is entered on the student's record. If a grade lower than C is earned, only the fact that the examination has been attempted will be recorded; credit will not be allowed. Credit earned through Advanced Standing Examinations will not be used in computing the student's grade point average.
3. Advanced Standing Examinations are given free of charge to the student planning to enroll at UNO as a freshman, and until the final date for dropping courses without receiving grades of the first regular semester in which he or she is enrolled either part-time or full-time as a first-year student. All other students must pay a fee of $20 per course.

A special invitation only, program is conducted during the spring of each year in which prospective freshmen who meet certain minimum ACT score qualifications come to the campus and take Advanced Standing Examinations in one or more subjects. There is no fee for these exams, and credits earned will be entered on the student's record after official enrollment at UNO.

CEEB Advanced Placement Examinations

Advanced placement and credit will be granted in appropriate subjects to students who have taken the Advanced Placement Examinations of the College Entrance Examination Board. When the student has achieved a grade of four or five on the advanced placement examination, credit will be granted; when the grade is three, the decision regarding credit will be referred to the judgment of the individual department.

Questions concerning the recording of these grades should be directed to the Office of Admissions.

Other Advanced Credit

Advanced credit may be awarded for certain subject examinations completed through the College Level Examination Program (CLEP) and for non-collegiate courses recommended for credit by the National Guide to Credit Recommendations for Non-Collegiate Courses. Credit so earned may or may not be applicable to the student's degree program; final determination will be made by the student's dean. Prospective students desiring detailed information on these programs are advised to write to the Office of Admissions requesting a brochure on advanced placement and credit.

Advanced Placement Credit for Courses Bypassed New Freshmen

In some departments, initial placement in sequential courses is based upon level of achievement from earlier training, as measured by scores on American College Testing program or departmental tests. Students who first entered the University after June 1967, and secured placement in this way above the normal beginning level, may petition for credit in the courses bypassed. No credit is allowed for remedial courses bypassed

Other UNO Students

In some departments, students who do exceptionally well in a sequential course at a given level may be permitted by the department to enroll in a course in that sequence other than the next one. Students who received advanced placement in this manner after August 1976 may petition for credit in the courses bypassed. No credit is allowed for remedial courses bypassed.

Validation of Advanced Placement

The validity of placement must be established by passing the next course in the sequence with a C or better grade (on the first attempt). Detailed information may be secured at the office of the college or division in which the student is enrolled.

Credit Limitation

Credit from all forms of advanced standing examinations (including those of the College Entrance Examination Board and the College Level Examination Program) and from bypass credit cannot exceed 30 hours. This credit cannot be used to reduce the University's minimum residence requirement.

Credit for Correspondence and Extension Work

Each college fixes the amount of degree credit it will accept in correspondence or extension courses offered through the Continuing Education Division of Louisiana State University or through accredited extension divisions of other universities. In no case will a college accept more than 30 hours of work in this category and in all such work presented for degree credit the same requirements as to grades and quality points must be met.

Credit for Armed Services Courses

Many military educational programs are not directly usable in university degree programs because the focus is too narrow and pragmatic. On the other hand, some service schools provide instruction which may be equated with university work.

When the student presents the Office of Admissions with an official record of completion of a course at a service school, a notation will be made on the student's evaluation sheet in accordance with the recommendation of the Guide to the Evaluation of Educational Experiences in the Armed Services prepared by the American Council on Education. Credit for such courses may or may not be applicable toward the student's degree program; this will be determined by the student's dean.

Credit for ROTC or Health and Physical Education courses on the basis of service time will not be granted.

USAFI General Educational Development (GED) first- and second-year general tests will not be accepted.

Credit for Experiential Learning

The University does not evaluate experiential learning portfolios. However, for non-traditional educational programs,

credit may be awarded on the basis of the successful completion of an appropriate advanced standing examination. Discretion for giving such an examination belongs to the individual academic department. In addition, formal education programs sponsored by non-collegiate organizations (business, industry, government, voluntary, and professional agencies) may be awarded credit if recommended by the American Council on Education.

Credit Limitation

Combined credit from advanced standing examinations, bypassed credit, armed services credit, correspondence/extension, and American Council on Education recommended credit work can not exceed 32 hours.

Undergraduate Grading System

A — The grade of A has a value of four quality points per semester hour and is given for work of the highest degree of excellence.

B — The grade of B has a value of three quality points per semester hour and is given for work of a high degree of excellence.

C — The grade of C has a value of two quality points per semester hour and is given for satisfactory work.

D — The grade of D has a value of one quality point per semester hour and is given for passing but marginal work.

F — The grade of F does not earn quality points. This grade is given for work failed. A student who receives this grade in a course must repeat the course at UNO in order to receive credit for it.

XF — The grade of XF does not earn quality points and is treated the same as an F. The grade indicates failure as well as poor attendance.

P — The grade of P means passing and is assigned for satisfactory work taken by advanced standing examination, for satisfactory completion of certain noncredit courses or courses numbered below 1000, and for satisfactory completion of courses taken on a pass-fail basis. This grade does not carry quality points and is not used in computing the official grade average of a student.

U — The grade of U means unsatisfactory and is assigned for unsatisfactory completion of courses numbered below 1000. Credit hours for which a grade of U is recorded are not used in calculating the student's average.

XU — is treated the same as a U. The grade indicates failure as well as poor attendance.

W — The grade of W means withdrawal. This grade is given when a student drops a course or resigns from the University during the "W grade" period. Credit hours for which a grade of W is recorded are not used in calculating the student's average.

I — The grade of I means incomplete and is given for work which is of passing quality but which, because of circumstances beyond the student's control, is not complete. The issuance of the grade of I is at the discretion of the faculty member teaching the course. A grade of I becomes a grade of F if it is not converted before the deadline for adding courses for credit (as printed in the catalog) of the next regular Fall or Spring semester.

Suspension of a Grade

Under certain conditions, when a course has been repeated, UNO permits a student to request that a first grade of D or F in a course be suspended and only the second grade be used in calculating the grade point average. Some of the limitations are:

1. Course to be suspended is numbered below 3000.
2. Course to be suspended has not been suspended before.
3. The total number of hours suspended to date, including the hours to be suspended, does not exceed nine hours.
4. The repetition of the course to be suspended occurred before the student reached junior standing.
5. The student does not complete, prior to repeating the course, two or more higher-numbered courses for which the course is a prerequisite.
6. The student is eligible to enroll at UNO.
7. Both enrollments in the course are at UNO.

The official academic record (transcript) will indicate this suspension and will show in the academic summary a grade-point average calculated on the basis of the total number of hours attempted and a grade-point average calculated on the basis of suspended grades.

Class rankings, graduation honors, and eligibility for UNO academic honors programs are determined on the basis of the grade-point average for all credits attempted including those suspended.

The suspension of credit is an internal policy of the University of New Orleans and may not be recognized by other universities.

Maintenance of Academic Standing

General

Scholastic regulations embody the academic standards of a university. The application of the following regulations is directed toward upholding the standards of this University-specifically, to impose the requirement of satisfactory academic progress. Continuation of students who have demonstrated a lack of the necessary ability, preparation, industry, or maturity to make such progress and to benefit from a program of university study is inconsistent with the purposes and responsibilities of the University.

The academic regulations, beginning with the section entitled Scholastic Requirements, set forth the conditions for good standing, probation, and exclusion. These regulations are intended to be consistent with the following objectives:

To indicate to the student, at an early date and with regularity, that achievement below the standards required for graduation is regarded as unsatisfactory.

1. To allow the first-time freshman the opportunity to

remain a student until he or she has attempted two enrollments.

2. To give the student who performs poorly a warning which may prompt him or her to seek timely help from instructors, counselors or other appropriate sources.
3. To provide the student whose record shows that ultimate success in the University is in doubt with a trial period to prove that he or she is able to make reasonable academic progress.
4. To prevent the student who lacks the required motivation or maturity from building a deficiency of quality points so great that it cannot later be overcome.
5. To state the standards and the consequent results of inadequate scholastic performance clearly enough that students, parents, faculty, and administrators can know the academic action (if any) which would follow from a particular academic record.

Definitions

CUMULATIVE AVERAGE A student's cumulative grade-point average is calculated by dividing the total number of quality points earned by the total number of semester hours attempted. (See Grading System in this chapter for the quality points assigned to each final grade.)

GOOD STANDING It is expected that all undergraduate students should maintain a cumulative grade-point average of at least 2.0 (C) on all college work attempted and on all work attempted at UNO. The University will, however, certify a student to be in good standing as long as that student has a grade-point average that does not result in a scholastic drop.

Scholastic Requirements

1. A student will be placed on academic probation whenever the cumulative UNO quality points are 10 or more below a C average; that is, the total number of hours attempted at UNO, multiplied by two, exceeds quality points earned at UNO or elsewhere by 10 or more.
2. A student on academic probation will be dropped from the University at the conclusion of any semester (summer included) in which he or she fails to earn a grade-point average of 2.0.
3. Once on scholastic probation, a student will remain on probation until an overall grade-point average of 2.0 or higher is achieved at UNO and on all college work attempted.
4. Regardless of a student's overall average, if he or she fails to earn a 2.0 average in each of two consecutive semesters (or one semester and a summer session), ineligibility to continue in a college or a particular curriculum may result, at the discretion of the dean of the college. The student may still be admissible to another college of the University.

Provisions for Students Dropped from the Rolls of the University

1. A student who is dropped for the first time for academic reasons may appeal for immediate readmission through the college of his or her major. Otherwise, the student may not be considered for readmission until he or she has been out of the University for one regular semester.
2. A student who has been dropped twice for academic reasons must remain out of the University for at least one calendar year. The student may then apply for readmission. Readmission may be delayed or denied at the discretion of the dean of the student's college. This application must be made not less than 30 days before the first day of classes of the semester of reentry
3. A student who has been dropped for scholastic and/or disciplinary reasons may not obtain credit toward a degree in this University with credits earned at another institution during the period of ineligibility to register in the University.
4. A student who has been readmitted after having been dropped for academic reasons will be on scholastic probation when he or she returns.

Readmission after Academic Suspension

A student who has been dropped from the rolls of the University for the first time will not be permitted to register in the University until the expiration of one full semester unless his or her appeal for immediate readmission is approved by the Admissions Review Board. After the expiration of the one semester the student may be readmitted upon the approval of the Admissions Review Board. Applications for reentry must be filed at least 30 days before the beginning of the semester to provide adequate time for review.

A student who has been dropped from the University for the second time for failure to meet academic requirements may not apply to reenter until the expiration of one calendar year following the date of the second dismissal, at which time he or she may be allowed to register upon the approval of the Admissions Review Board. Such readmission is generally a last chance admission, and the University is especially concerned to make certain the student is ready to measure up to the serious responsibility to be faced. Failure will probably mean the end of hopes for a college education. In every instance the Admissions Review Board must be convinced by evidence rather than verbal assurances that the cause of previous failure has been removed and the prospect for recovery is good.

It must be remembered that it is far more difficult to overcome the effects of a bad academic record than to maintain a good record in the first place. Only when the student's state of mind and personal circumstances are right for making the massive effort can success be expected. In some cases the record will be clear that the student's abilities lie in some other direction and that only frustration and further failure would result from readmission. It is the responsibility of the Admissions Review Board to determine when, if at all, readmission should be granted. He or she may be aided in this by the advice of a faculty screening committee. At any rate, ample time for deliberation is necessary. Such applications must be made well ahead of the proposed reentry, never less than 30 days prior to the date that classes begin.

College of Business Administration

John F. Gardner, Dean

Mission Statement: The Mission of the College of Business Administration is to deliver a quality business education to our international, regional, and local communities through teaching, research, service to our stakeholders, and the effective use of technology. We will facilitate economic development and entrepreneurial activity, and adhere to the core values of continuous improvement, high ethical standards, and diversity in the educational environment.

The College of Business Administration offers the following four-year programs of study: accounting; business administration; business administration (computer science option); entrepreneurship; finance; hotel, restaurant, and tourism administration; management; and marketing.

Theoretical and case study methods are employed to develop problem-solving and decision-making abilities which lead to the intellectual growth of business students preparing for positions of responsibility in the community. In order to produce this quality of graduate, the College has the specific objectives of:

1. creating and maintaining curricula which provide a common body of knowledge in the field of business administration as well as a broad liberal arts and science background;
2. instructing in a manner to instill lasting concepts and thinking ability;
3. encouraging faculty research and development to maintain instructional relevancy to the present and future; and
4. maintaining a continuing service to the civic and business community of the greater New Orleans area.

Accreditation

The following undergraduate and master's programs in business and accounting offered by the College of Business Administration, University of New Orleans, are accredited by the Association to Advance Collegiate Schools of Business (AACSB International):

Business, Bachelor of Science Degree:
Business Administration
Business Administration (Computer Science Option)
Entrepreneurship
Finance
Hotel, Restaurant, and Tourism Administration
Management
Marketing

Business and Accounting, Bachelor of Science Degree:
Accounting

Master's Degree:
Master of Business Administration
Master of Science in Accounting
Master of Science in Accounting (Taxation Option)
Master of Science in Health Care Management
Master of Science in Hospitality and Tourism

Minors in Business

The following minors in the College of Business Administration are available to all students:
Accounting
Economics
Entrepreneurship
Environmental Economics
Global Business Studies
Hotel, Restaurant and Tourism Administration
Information Systems Management
Management
Marketing

Requirements for these minors may be found under each major program description in the College of Business Administration section.

The following minor in the College of Business Administration is available to non-business administration students only:
Business Administration

Requirements for the Bachelor of Science Degree

Students must earn a minimum of 120 semester hours and at least 50 percent of the business credit hours required for the business degree at the University of New Orleans.

Students transferring from another University are required to take at least 15 hours in their major area in the College of

Business Administration at UNO. Those transfer students majoring in Business Administration, including the Computer Science option, must take 21 hours of business courses at UNO, including 18 hours at the junior or senior level.

Students are also held responsible for knowing degree requirements, for enrolling in courses that fit into their degree programs, and for taking courses in the proper sequence to ensure orderly progression of work.

Each student is held responsible for notifying the college office of graduation plans at the beginning of the semester preceding the student's final semester. At that point, a degree audit is prepared which outlines the student's current scholastic position and indicates the course requirements remaining for the degree.

Students in the College of Business Administration are strongly encouraged to complete English 1158 with a C or better and Mathematics 1115 at the earliest possible time in their college career. Several required sophomore-level courses have these courses as prerequisites.

At least 50 percent of a business student's curriculum must consist of coursework outside the College of Business Administration. Nine hours of economics and six hours of business statistics may be counted as non-business courses for this requirement.

In addition to the general degree requirements (listed elsewhere in this catalog), each student must complete the college degree requirements as follows.

General Education Course Requirements

Courses	Cr. Hrs.
Mathematics 1115 or 1125, 2314	6
Science	11
Must include eight hours of one science (two of them laboratory) and three hours of another. One of the sciences must be biology and the other must be chemistry, earth and environmental sciences, or physics.	
English	12
English 1157, and 1158 or 1159 or its equivalent with a grade of C or better, plus six additional hours in literature. A passing grade in the English 1158 Proficiency Exam is required for all degrees. Writing courses and courses in grammar will not meet the literature requirement.	
Humanities, Arts and Social Sciences	12
Completion of at least six semester hours in each area. Minimum of six hours must be at or above the 2000 level. Economics courses are not viewed as social science courses for business students but rather as business courses. Three hours (Arts) must be selected from fine arts, theater- or dance-related course[1], or music. Three hours must be selected from foreign languages above the level of 1000 or 1011, English[2], philosophy, fine arts, music, drama, communications	1
Six hours must be chosen from geography, anthropology, political science, sociology, psychology, history, or urban studies[3]	3
Computer Literacy	3
See "Business Administration Course Requirements" below.	
Non-Business courses	9

A student may use no more than three hours credit taken in health and physical education courses, six hours taken in military science courses, six hours taken in religion, or a maximum of six hours combined credit in these three areas. The College of Business Administration accepts up to two hours of credit for ACOR 1001 and 1006 (or equivalents) for non-business electives. HRT majors are required only to take six hours of non-business courses.

[1] Film, Theater and Communication Arts courses that are theater- or dance-related (Arts).

[2] Any literature course in English used to fulfill the literature requirement listed under English above shall not count toward the humanities requirement.

[3] Other subjects listed under the social sciences in Areas of Concentration (see General Education Course Requirements of the University Regulations section) may not count for this General Degree Requirement.

Business Administration Course Requirements

Courses	Cr. Hrs.
Accounting 2100, 2130 (or 3121 & 3122)	9
Business Administration 2780	3
This course will satisfy the computer literacy requirement listed in the General Education Course Requirements above.	
Business Administration 3010	3
HRT majors take Hotel, Restaurant and Tourism 3016	
Economics 1203, 1204	6
Finance 3300	3
Management 2790, 3401, 3402, 4480	12
HRT majors take Management 3467 in lieu of Management 3402 and Hotel, Restaurant and Tourism 4000 in lieu of Management 4480	
Marketing 3501	3
Quantitative Methods–Business & Economics 2786, 2787	4
HRT majors are not required to take Quantitative Methods–B&E 2786 or 2787	

A maximum of six credit hours from any of four 1000-level courses: Business Administration 1000, or Economics 1000, or Economics 1273, or Finance 1330, may be used for credit toward a degree in the College of Business Administration unless a particular curriculum has restrictions which supersede this regulation. (Business Administration 1000, Economics 1000, and Finance 1330 are not open to students enrolled in the College of Business Administration who have completed 30 hours of university credit.)

Additionally, completion of the prescribed course of study in one of the following programs is required for the Bachelor of Science degree. To insure optimum exposure to advanced courses, all students must schedule at least 30 hours of 3000- and/or 4000-level courses.

Transfer credit must be validated when it is substituted for a junior- or senior-level business course if the transfer credit was earned at a lower level than UNO requires for the course it is replacing. Transfer students should contact the college office concerning the procedures to be followed in this process.

All majors in the College of Business Administration must demonstrate their possession of global awareness by passing

two courses from the college's list of courses designated as global awareness courses.

A 2.0 average must be earned in all courses taken at UNO and in all courses taken at UNO in the student's major as a requirement for graduation.

Division of Business and Economic Research

The Division of Business and Economic Research (DBER) facilitates and supports academic research and the publication of research findings in a variety of business fields. The DBER is a member in the Association for University Business and Economic Research, an organization that includes 100 research institutes internationally. By providing a wide range of resources and services to enhance the ability for faculty to conduct quality research, the DBER reinforces the efforts of the College of Business Administration to recruit and retain outstanding faculty and students.

The DBER is a primary participant in the Louisiana Census Data Center network. In this role, it regularly collects and disseminates socioeconomic statistics to private firms and government agencies; provides technical assistance, data analysis, referral services, and data use consultation; conducts training in access and applications of socioeconomic data; and performs and publishes research on demographic and economic characteristics of Louisiana and its component areas.

The results of its quarterly forecasting model of employment by sector and other local indicators for the New Orleans metropolitan area are published in the Metropolitan Report: Economic Indicators for the New Orleans Area. These results are widely used by the New Orleans business community.

The DBER is an authority for economic and demographic information, analysis, and forecasts on the New Orleans area. The DBER staff serves on various community-based boards and committees with special focus on local and state economic and demographic conditions. Together with faculty from the School of Hotel, Restaurant and Tourism Administration, the Hospitality Research Center was formed, which is a Center of Excellence. The Hospitality Research Center has produced a number of tourism and hospitality research studies for local, state and out-of-state clients.

Hospitality Research Center

The Hospitality Research Center at the University of New Orleans is a collaborative effort of the Division of Business and Economic Research (DBER) and the Lester E. Kabacoff School of Hotel, Restaurant and Tourism Administration (HRT). Each faculty member of the School of HRT has broad experience in the tourism and hospitality industry and has extensive academic preparation. Working together, in cooperation with the professionals in the Division of Business and Economic Research, the UNO DBER/HRT research program is consistently recognized for research productivity in the hospitality field. The function of the Hospitality Research Center is to provide a variety of research services to hospitality and tourism organizations.

Center for Economic Development

The Center for Economic Development was established in 1978 as a joint effort of the state and federal government to work cooperatively with local agencies and non-profit organizations to create an environment which encourages economic diversification and growth. The Center at UNO is part of a network of over 65 university center programs funded by the U.S. Department of Commerce, Economic Development Administration throughout the United States which help to direct the technical and human resources of institutions of higher education to their surrounding communities. The Center the entire state of Louisiana and has been engaged in a wide variety of research and technical assistance programs involving resources from within the College of Business Administration as well as other colleges and community service units at UNO.

The Center assists local community and economic development agencies in preparing strategic plans to direct their growth and development programs and in preparing demographic and market studies of the opportunities that may exist to attract new business and retain and nurture existing firms. The Center also publishes research bibliographies on various aspects of economic and community development, assists in the preparation of grant applications and sponsors conferences and seminars which present concepts, information and techniques that may be helpful to local agencies and non-profit organizations whose focus is economic development at the state, regional or local level. The Center also offers an economic development internship program that allows local organizations to retain the services of graduate research assistants for periods of up to one year to work on specific projects or within a particular program. These internships provide the equivalent of an extended staff member for local organizations that very often have limited resources.

Small Business Development Center

The Small Business Development Center (SBDC) was established in 1983 with funding provided by the U.S. Small Business Administration, the Louisiana Department of Economic Development and the University. The SBDC is one of 13 centers affiliated with the Louisiana Small Business Development Center Network. The primary purpose of the SBDC is to provide small business counseling, management assistance and research services to new and existing businesses using faculty, staff, and student resources. These services are available at no charge to small business owners and/or managers as well as to individuals who are considering the establishment of a small business. The SBDC also offers educational programs such as seminars and workshops that are designed to sharpen the managerial skills of small business owners. The SBDC is the area administrator of the nationally acclaimed FastTrac Entrepreneurial Training Program. The Center is located in

downtown New Orleans. The website is http://business.uno.edu/sbdc/.

Louisiana International Trade Center

The Louisiana International Trade Center (LITC) at UNO was established in September of 1984 with funding provided by the U.S. Small Business Administration and the Louisiana Department of Economic Development. The LITC is a statewide program which operates through the network of university-based Small Business Development Centers to identify and promote small business export/import opportunities. The LITC provides business counseling and management assistance to existing and new small businesses that want to engage in international export/import activities. The LITC also coordinates and conducts export and import trade seminars and workshops throughout the state and serves as an information resource center. The counseling and management assistance services are provided at no charge. A nominal fee is charged for seminars and workshops. The LITC is located in the World Trade Center in downtown New Orleans. The website is http://www.uno.edu/litc/.

Real Estate Market Data Center

The Real Estate Market Data Center offers three groups of services – professional real estate education, primary market data, and contracted research. The real estate community is served through seven short continuing education courses, an annual forecast seminar, and a 30-hour post-licensing course. These offerings are described at http://business.uno.edu/remdc/.

The Center offers descriptive and transaction data on one-to-four family housing sales for firms active in real estate valuation, construction, lending, and brokerage. These subscriber services provide users with monthly information on individual property transactions as well as forecasts of expected and current market conditions in all geographic areas covered by the data service. The two primary research services are appraisal comparables for appraisers and analyses of the overall real estate marketplace.

Annually, an overall analysis of the real estate market is also available to subscribers and the general public. This inexpensive study describes current conditions and forecasts future conditions for single-family and condominium housing by neighborhood. The study also reviews apartment, hotel, office, retail, and warehouse occupancy and rents.

Major Programs

Bachelor of Science Degree in Accounting

Department of Accounting Mission

The mission of the Department of Accounting is to provide programs, at both the undergraduate and graduate levels, that prepare our students for careers as professional accountants in public practice, industry, and other areas, and for advancement into graduate programs. We will do this by maintaining high academic standards, superior teaching, quality research, significant service, and the effective use of technology. We adhere to the core values of continuous improvement, the highest ethical standards, and diversity in the educational environment.

Statement of Goals

1. The Department will provide intellectual contributions that benefit the academic and professional communities.
2. The Department of Accounting faculty will provide accounting instruction in support of our departmental mission.
3. The Department will provide service to national, regional and local professional associations and to the University and local communities.
4. Department of Accounting faculty will actively work to increase retention among its student population

Goals of Bachelor of Science in Accounting

- Our students will demonstrate a proficiency in financial accounting concepts.
- Our students will demonstrate a proficiency in auditing concepts.
- Our students will demonstrate a proficiency in individual income taxation concepts.
- Our students will demonstrate a proficiency in managerial accounting concepts.
- Our students will demonstrate a proficiency in accounting information systems concepts.
- Our students will demonstrate a proficiency in governmental accounting concepts.
- All graduates will demonstrate the effective use of computers and information technology.
- All graduates will demonstrate a proficiency in conducting auditing, financial accounting, and tax research.
- The Department will offer an academic program that is flexible for our students, given our resources.

Accreditation

In addition to college-wide accreditation, the Bachelor of Science in Accounting and the Master of Science in Accounting programs are separately accredited by AACSB International.

Admissions Requirements

College of Business Administration students are eligible to declare a major in accounting if they have thirty semester hours earned and an overall average of 2.2 or higher on all work taken prior to declaring an accounting major.

The Department of Accounting ordinarily requires 15 hours of accounting courses to be taken in residence at UNO in order to receive an undergraduate degree in accounting. The accounting faculty strongly urges students with less than a 3.0 GPA not to take more than six hours of accounting per semester.

CURRICULUM IN ACCOUNTING

Non-College of Business Administration

Course Requirements	Cr. Hrs.
English 1157, 1158 or 1159	6
English Literature*	6

Humanities and Arts* [1,2]	6
Mathematics 1115 or 1125, 2314*	6
Non-Business Electives*	9
Sciences*	11
Social Sciences*[1]	16
Total	50

College of Business Administration

Course Requirements	**Cr. Hrs.**
Business Administration 2780, 3010, 3021	9
Business Electives [3]	3
Economics 1203, 1204	6
Finance 3300	3
Management 2790, 3401, 3402, 4480	12
Marketing 3501	3
Quantitative Methods-B&E 2786, 2787	4
Total	40

Accounting

Course Requirements	**Cr. Hrs.**
Accounting 2100, 3120, 3121, 3141	10
Accounting 3122, 3123, 3124, 3131, 3152, 3161	18
Accounting Elective [4]	3
Total	31
Grand Total	121

* See General Education Course Requirements in the section on University Regulations.

[1] At least six hours of Social Sciences or Humanities must be at or above the 2000 level.

[2] Accounting majors must satisfy a public speaking requirement. This can be accomplished by taking Film, Theatre and Communication Arts 2650 as a humanities elective or Management 3472 as a business elective.

[3] May be 4000-level accounting course.

[4] Must be 4000-level course.

LOUISIANA CPA EXAMINATION REQUIREMENTS

Louisiana candidates sitting for the CPA examination must meet the 150-hour education requirement of the State Board of CPAs of Louisiana. This requirement includes 150 hours of college credit from an accredited university, including a bachelors degree. Students may fulfill this requirement by completing one of the Master of Science in Accounting programs at UNO or by completing the certification program as described below.

Certification of Eligibility for CPA Examination Candidacy

Outlined below are three options offered to students who wish to meet the 150-hour requirement to take the CPA Examination. These options will lead to a UNO Certificate of Eligibility for CPA Examination Candidacy if the student's grade-point average for courses taken under the selected option is 2.0 or better. They are intended to be an alternative to, rather than a replacement for, the Master of Science in Accounting programs. Persons pursuing this certificate should already have earned a Bachelor's degree and have completed at least 129 semester hours of college-level course work. It is the responsibility of the student to insure that courses taken qualify for credit toward this certificate.[1]

OPTION I (21-22 hours)[2]:

This option is for accounting majors who plan to sit for the CPA examination and who wish to improve their analytical, reasoning, and communication skills, as well as their knowledge of accounting and international business.

Accounting – Accounting 3120 plus 12 hours at the 3000 level or higher (in addition to courses taken in regular program)

Philosophy – three hours to be selected from the following: Philosophy 1050, 1100.

English Composition – Three hours to be selected from the following:[3] English 2151, 2152, 2153, 4151, 4152, 4154, 4158.

International Business(or equivalent) – three hours.[4]

OPTION II(21-22 hours)[2]:

This option is for accounting majors who plan to sit for the CPA examination and who wish to improve their skills in accounting and to develop a high degree of expertise in a non-accounting specialty.

Accounting – Accounting 3120 plus six to nine hours at the 3000 level or higher (in addition to courses taken in regular program)

Non-accounting courses[5] – 12-15 hours in the same department with at least six hours at the 3000 level or above.

OPTION III:

This option is for students who have an undergraduate major in some field other than accounting, who wish to meet the State Board of Louisiana CPAs accounting and business course requirements in order to sit for the CPA examination. Accounting – 28 hours[6] including Accounting 2100, 3120, 3121, 3122, 3123, 3124, 3131, 3152, 3161, plus three hours of accounting electives selected from Accounting 3141, 4132, 4152, 4153, 4162 (or a theory course).

Business courses – 24 hours including Business Administration 3021, Economics 1203 and 1204 or 4400, Finance 3300 or 4400, Management 3401 or 4400, Marketing 3501 or 4400, Quantitative Methods – Business and Economics 4400 and Business Administration 2780.

The three options listed above satisfy the State Board of CPAs of Louisiana requirements to sit for the CPA exam. These requirements can also be satisfied by a graduate degree, such as a Master of Science in Accounting, Master of Science in Accounting – Taxation Option, or Master of Business Administration. For other options see the Rules of the State Board of Certified Public Accountants of Louisiana.

[1] Students electing Options I and II must have met the requirements of Option III. A minimum of 18 hours, of the 21 hours required under Options I and II, must be taken at UNO. Of these hours, at least six must be in accounting courses taken

at UNO.

[2] If hours are taken as part of a bachelor's degree, they must be replaced by ones approved by the Department of Accounting.

[3] If this course is taken as part of a bachelor's degree, another English composition or oral communication course must be substituted.

[4] If this course is taken as part of a bachelor's degree, another course must be substituted from an approved list of business courses.

[5] Courses selected are subject to the approval of the Accounting Department.

[6] At least 18 of these hours must be taken at UNO.

Minor in Accounting

Students may earn a minor in accounting by completing 19 hours of accounting courses with a cumulative GPA of 2.0 or better in all accounting courses attempted. Twelve hours of these accounting courses must be completed at UNO with a cumulative GPA of 2.0 or better. The following accounting courses comprise the minor in accounting: Accounting 2100, 3120, 3121, 3122, 3131, and six hours of accounting electives from accounting courses open to accounting majors for degree credit. Three of the six hours of accounting electives must be 3000 level or above. Accounting 2130 may not be used for credit toward the minor in accounting.

Honors in Accounting

To graduate with Honors in Accounting the following requirements must be fulfilled:

1. Complete the usual requirements for accounting majors.
2. Maintain a minimum cumulative grade point average of 3.5 in accounting courses and 3.25 overall.
3. Complete a minimum of six credit hours in non-business courses.
4. Complete at least six credit hours of honors coursework in accounting beyond Accounting 2100.
5. Complete a Senior Honors Thesis (six credit hours). These six credit hours replace Accounting (three credit hours) and Business (three credit hours) course electives. Acceptance of thesis depends on successful oral defense.

CURRICULUM IN BUSINESS ADMINISTRATION

Non-College of Business Administration

Course Requirements	Cr. Hrs.
English 1157, 1158 or 1159*	6
English Literature*	6
Humanities and Arts*[1,2]	6
Mathematics 1115 or 1125, 2314	6
Non-Business Electives[2]	9
Sciences*	11
Social Sciences*[1]	6
Total	50

College of Business Administration

Course Requirements	Cr. Hrs.
Accounting 2100, 2130	6
Business Administration 2780, 3010	6
Economics 1203, 1204	6
Finance 3300	3
Management 2790, 3401, 3402, 4480	12
Marketing 3501	3
Quantitative Methods–Business & Economics 2786, 2787	4
Accounting or Finance Elective	3
Total	43

Major

Course Requirements	Cr. Hrs.
Business Administration 1000 or Business Elective[4]	3
Marketing or Hotel, Restaurant & Tourism Elective	3
Business Electives[3]	21
Total	27
Grand Total	120

* See General Education Course Requirements in the section on University Relations.

[1] At least six hours must be at or above the 2000-level.

[2] Strongly recommend one of the following: Film. Theatre and Communication Arts 2650 or 2660. Business Administration students who are undecided about their major are encouraged to take Academic Orientation 1001 and 1006 when possible.

[3] Of the 21 hours of business electives, a maximum of nine hours may be taken in any one field, and 12 hours must be at the junior or senior level. Also, 15 of the 21 hours must be taken at UNO and all 21 must be completed with a C average or better.

[4] May request the substitution of an upper-level business course.

CURRICULUM IN BUSINESS ADMINISTRATION: COMPUTER SCIENCE OPTION

Non-College of Business Administration

Course Requirements	Cr. Hrs.
English 1157, 1158 or 1159*	6
English Literature*	6
Humanities and Arts*[1,2]	6
Mathematics 1115 or 1125, 2314	6
Non-Business Electives[2]	3
Sciences*	11
Social Sciences*[1]	6
Total	44

College of Business Administration

Course Requirements	Cr. Hrs.
Accounting 2100, 2130	6
Business Administration 1000 or Business Elective	3
Business Administration 3010	3
Economics 1203, 1204	6
Finance 3300	3
Management 2790, 3401, 3402, 4480	12
Marketing 3501	3
Quantitative Methods–Business & Economics 2786, 2787	4
Business Electives	15
Total	55

Business Administration Information Technology Option

Course Requirements	Cr. Hrs
Accounting 3141 or Management 3778	3
Business Administration 2780	3
Computer Science 1060 or 1201 or 1583/1581	3
Computer Science 21031 or Management 3788 [2]	3
Computer Science 3601 or Management 4730 [2]	3
Computer Science 3611 or Management 4750 [2]	3
Marketing 3510	3
Total	21
Grand Total	120

* See General Education Course Requirements in section on University Regulations.

[1] An equivalent computer science course may be substituted with consent.

[2] One of these three courses must be computer science.

Of the 21 hours of computer science/information technology related courses, 15 hours must be taken at UNO and all 21 hours must be completed with a C average or better.

Honors in Business Administration

In addition to the regular curriculum requirements listed in the catalog, a Business Administration major wishing to graduate with honors must achieve the following:

1. maintain a 3.25 overall grade point average.
2. maintain a 3.50 grade point average in the business courses used for the 21 hour business electives requirement (15 hours for Computer Science Option).
3. complete a senior honors thesis (six semester hours) or project to be determined by agreement among the student, a faculty member in the appropriate discipline who will supervise the project, and the Director of the University's Honors Program. The student will be permitted to enroll in whatever business major field he or she has chosen (such as Accounting 3999 or Economics 3099, for example) for thesis purposes.
4. perform satisfactorily on an oral examination defending the thesis/project.
5. students exercising the Computer Science Option must also have a 3.50 grade point average in the seven computer-related courses required.

Minor in Business Administration

Non-business students wishing to minor in Business Administration may do so by completing the following courses with a minimum letter grade of C or better in each course: Accounting 2100 or 4400, Business Administration 3010 or 3080 or 4400, Economics 1203 or 2200 or 4400, Finance 2302 or 3300 or 4400, Management 3401 or 4400, and Marketing 3501 or 4400.

Minor in Global Business Studies

Students may earn a minor in Global Business Studies by completing 18 credit hours from the following courses with a minimum letter grade of C or better in each course: Economics 4262 or Finance 4362, Management 4446, Marketing 4546; Hotel, Restaurant and Tourism 2050; Business Administration 4048; Hotel, Restaurant and Tourism 4250; Economics 4261; and Accounting 4126.

Department of Economics and Finance Mission

The mission of the Department of Economics and Finance is to provide high quality education to undergraduate students in the college and university; to engage in research and intellectual activities commensurate with a doctoral granting department, and to provide services to continuously improve the local, regional, and global communities of our stakeholders.

Minor in Economics

Students wishing to minor may do so by completing the following required courses and electives in Economics with a grade of C or better in each course: Economics 1203, 1204, and 2221 plus nine hours of electives from economics courses at the 3000 or higher level.

CURRICULUM IN FINANCE

Non-College of Business Administration Course Requirements	Cr. Hrs.
English 1157, 1158 or 1159*	6
English Literature*	6
Humanities and Arts* [1]	6
Mathematics* 1115 or 1125, 2314[2]	6
Non-Business Electives*	6
Sciences*	11
Social Sciences* [1]	6
Total	47

College of Business Administration Course Requirements	Cr. Hrs.
Accounting 2100, 3121, 3122	9
Business Administration 2780, 3010	6
Economics 1203, 1204, 2221	9
Management 2790, 3401, 3402, 4480	12
Marketing 3501	3
Quantitative Methods-B&E 2786, 2787	4
Business Electives	6
Total	49

Finance Course Requirements	Cr. Hrs.
Finance 3300, 3302, 3303 or 3321, 4304	12
Finance electives	12
Total	24
Grand Total	120

* See General Education Course Requirements in the section on University Regulations.

[1] At least six hours must be at or above the 2000 level.

[2] Students interested in pursuing graduate studies in finance should take at least one year of calculus.

Students may elect, if they wish, a concentration in Banking and Financial Institutions, Corporate Finance, Investments, or Real Estate.

Banking and Financial Institutions Concentration:

The Concentration in Banking and Financial Institutions requires the completion of Finance 3303, Finance 3321, and Finance 4322. The student may take either Finance 3392 or Finance 4391, if approved by the department, in place of one of the required courses. A minimum grade of C is required in all courses. The Banking and Financial Institutions Concentration is designed to prepare the student for entry into a banking and financial institutions career or graduate study in the field.

Corporate Finance Concentration:

The Concentration in Corporate Finance requires the completion of Finance 4362/Economics 4262, Finance 4232, and Finance 4222 in lieu of nine hours of finance electives. The student may take either Finance 3392 or Finance 4391, if approved by the department, in place of one of the required courses. A minimum grade of C is required in all courses. The Corporate Finance Concentration is designed to prepare the student for entry into a corporate finance career or graduate study in the field.

Investments Concentration:

The Concentration in Investments requires the completion of Finance 4307, Finance 4308, and Finance 4322 in lieu of nine hours of finance electives. The student may take either Finance 3392 or Finance 4391, if approved by the department, in place of one of the required courses. A minimum grade of C is required in all courses. The Investments Concentration is designed to prepare the student for entry into an investments career or graduate study in the field.

Real Estate Concentration:

The Concentration in Real Estate requires the completion of Finance 2335, 3366, and 3368. These will be taken in lieu of nine hours of finance electives. A minimum grade of C in each of the three courses is required. The Real Estate Concentration is designed to prepare the student for entry into a real estate career or graduate study in the field.

Minor in Finance:

Students wishing to minor in Finance may do so by completing the following required courses and electives with a grade of C or better in each course: Finance 3300, 3302, 4304 plus nine hours of Finance electives.

Honors in Finance:

To graduate with honors in Finance, the student must fulfill the following requirements in addition to the usual requirements for a major:

1. a minimum cumulative grade-point average of 3.5 in finance courses and a 3.25 grade-point overall;
2. at least six hours of honors coursework in finance;
3. a senior honors thesis or project in Finance 3099. The thesis or project is to be determined by mutual agreement with the student, a faculty member who will supervise the project, and a departmental member of the University Honors Committee. The student will perform satisfactorily on an examination defending the thesis or project. Six hours of thesis credit must be completed.

Department of Hotel Management and Tourism

Lester E. Kabacoff School of Hotel, Restaurant and Tourism Administration Mission

The Lester E. Kabacoff School of Hotel, Restaurant and Tourism Administration (HRT) strives to provide HRT graduates with the skills and background which will prepare them for entry level management positions within the hospitality and tourism industries. Students have the ability to custom design their curricula by selecting HRT concentrations and business minors. Graduates will obtain a solid business background as well as a comprehensive understanding of the tourism and hospitality industries.

CURRICULUM IN HOTEL, RESTAURANT AND TOURISM ADMINISTRATION

Non-College of Business Administration

Course Requirements	Cr. Hrs.
English 1157, 1158 or 1159*	6
English Literature*	6
Humanities and Arts*	6
Mathematics* 1115 or 1125, 2314*	6
Non-Business Electives*	6
Sciences*	11
Social Sciences*	6
Total	47

College of Business Administration

Course Requirements	Cr. Hrs.
Accounting 2100, 2130	6
Business Administration 2780	3
Economics 1203, 1204	6
Finance 3300	3
HRT or Business Electives	6
Management 2790, 3401, 3467, 3778	12
Marketing 3501	3
Total	39

HRT

Course Requirements	Cr. Hrs.
HRT 2000, 2030	6
HRT 3002, 3011, 3016, 3017, 3140, 4000	16
HRT electives	12
Total	34
Grand Total	120

* See General Degree Requirements.

Students may elect to take a nine credit hour concentration plus one Hotel, Restaurant and Tourism three credit hour elective. Students, if they wish, may elect a concentration in Tourism; Convention and Event Management; Hotel and Lodging Management; or Food and Beverage Management by completing the appropriate Hotel, Restaurant and Tourism courses as their Hotel, Restaurant and Tourism electives.

Tourism: Hotel, Restaurant and Tourism 2050, 3150, 3290 or 3295 or 4250.

Convention and Event Management: Hotel, Restaurant and Tourism 2070, 3290 or 3295 or 4290.

Hotel and Lodging Management: Hotel, Restaurant and Tourism 2020, 4120, 3290 or 3295 or 4290. It is recommended that students take Hotel, Restaurant and Tourism 3141 as one of their business core electives.

Food and Beverage Management: Hotel, Restaurant and Tourism 3141, 3145, 3290 or 3295, 4230. It is recommended that students take Hotel, Restaurant and Tourism 3141 and either Hotel, Restaurant and Tourism 3150, 3240, 3290, 4110, 4120, 4155, 4160, 4165, 4250, or 4290 as their business core electives.

Minor in Hotel, Restaurant, and Tourism Administration

Students must complete 18 credit hours in Hotel, Restaurant, and Tourism Administration with a letter grade of C or better in all courses as follows: Hotel, Restaurant and Tourism 2000, six credit hours at the 2000 level, 2020, 2030, 2050, and 2070, plus nine credit hours at the 3000- or 4000-level.

Honors in Hotel, Restaurant and Tourism Administration

To graduate with honors in Hotel, Restaurant and Tourism Administration, the following requirements must be fulfilled:

1. Completion of the requirements for a Bachelor of Science in Hotel, Restaurant, and Tourism Administration.
2. Maintain a cumulative grade point average of at least 3.5 in the Hotel, Restaurant, and Tourism Administration courses, and a minimum overall grade point average of 3.25.
3. Completion of a Senior Honors Thesis, which includes earning six hours of credit for Senior Honors Thesis.
4. Arrange for a faculty member in the relevant discipline to direct the thesis.
5. Receive approval from the director of the Honors Program to register for Senior Thesis credit.
6. Register for the course hours required by the School of Hotel, Restaurant, and Tourism Administration for Senior Honors Thesis.
7. Give an oral defense of the thesis to a committee composed of the thesis director, a member of the faculty selected by the director of the School of Hotel, Restaurant, and Tourism Administration, and a representative of the Honors Program.

Department of Management Mission

The Department of Management is dedicated to the development of managerial skills–analytical and interpersonal–which will enable students to succeed in a competitive international workplace. The department's primary mission, therefore, is to provide quality management education for undergraduate and graduate students by utilizing current management thought incorporated in an experience-based learning environment. A second component of the department's mission is the pursuit of a balanced approach that encourages and rewards both applied and basic research. Finally, the Department of Management faculty is committed to training and development at all levels of organizational life as part of its applied curriculum.

CURRICULUM IN MANAGEMENT

Non-College of Business Administration

Course Requirements	Cr. Hrs.
English 1157, 1158 or 1159	6
English Literature*	6
Humanities and Arts* [1]	6
Mathematics 1115 or 1125, 2314	6
Non-Business Electives*	15
Sciences	11
Social Sciences* [1]	6
Total	56

College of Business Administration

Course Requirements	Cr. Hrs.
Accounting 2100, 2130	6
Business Administration 2780, 3010	6
Business Electives	6
Economics 1203, 1204	6
Finance 3300	3
Marketing 3501	3
Quantitative Methods-B&E 2786, 2787	4
Total	34

Management

Course Requirements	Cr. Hrs.
Management 2790, 3401, 3402, 3778, 4480	15
Management Electives	15
Total	30
Grand Total	120

* See General Education Course Requirements in the section on University Regulations.

[1] At least six hours must be at or above the 2000 level.

Entrepreneurship Concentration:

The Concentration in Entrepreneurship requires the completion of Finance 3301, Business Administration 4056, and six hours selected from the following: Management 3070, 3071, 4057, 4058, Business Administration 3056, 3090, 3091, 4076, or Finance 4222 in lieu of 12 hours of business and management electives. The Entrepreneurship Concentration is designed to develop an awareness of the fundamentals of starting and owning one's own business.

Management Information Systems Concentration:

The Concentration in Management Information Systems requires the completion of Management 3778, and twelve additional hours selected from Management 4730, 4735, 4740, 4750 and 4760 taken in lieu of management elective courses. The Concentration is designed to prepare the student for entry into a career or graduate study in the area of information systems. Students taking the concentration in Management Information Systems may not minor in Information Systems Management.

Human Resource Management Concentration:

The Concentration in Human Resource Management requires the completion of Management 3467, 4468, 4469 and 4470. The Human Resource Management Concentration is designed to

prepare the student for a career or graduate study in the area of personnel/ human resource management.

Minor in Management:

Students wishing to minor in management may do so by completing 18 credit hours in management courses at or above the 3000 level with a letter grade of C or better in each course.

Minor in Entrepreneurship:

Students wishing to minor in entrepreneurship may do so by completing 18 credit hours in entrepreneurship. The student must take Business Administration 4056, Finance 3301, and four additional entrepreneurship courses to be chosen from Business Administration 1001, 3056, 3090, 3091, 4076, Management 3070, 3071, 4057, 4058, or Finance 4222. A grade of C or better must be received in each course.

Minor in Information Systems Management:

Students wishing to minor in Information Systems Management may do so by completing 18 credit hours in approved management information systems courses. Students must take Management 3778, 3788 and four of the following: Management 4710, 4730, 4735, 4740, 4750, 4760, and Accounting 4142. A grade of C or better must be received in each course. Students taking the minor in Information Systems Management may not have a concentration in Management Information Systems.

Honors in Management:

To graduate with Honors in Management, the following requirements, in addition to the usual requirements for the major, must be fulfilled.

1. maintain a minimum cumulative grade-point average of 3.5 in management courses and a 3.25 grade-point overall;
2. complete at least six hours of honors course work in management;
3. complete a six-hour senior honors thesis, Management 3099.

CURRICULUM IN ENTREPRENEURSHIP

Non-College of Business Administration

Course Requirements	Cr. Hrs.
English 1157, 1158 or 1159	6
English Literature*	6
Mathematics 1115 or 1125, 2314	6
Sciences*	11
Humanities and Arts**	6
Social Sciences**	6
Non-Business Electives*	9
Total	50

College of Business Administration

Course Requirements	Cr. Hrs.
Accounting 2100, 2130	6
Business Administration 2780, 3010	6
Economics 1203, 1204	6
Finance 3300	3
Marketing 3501	3
Quant. Methods-B&E 2786, 2787	4
Management 2790, 3401, 3402, 4480	12
Business Electives	6
Total	46

Entrepreneurship

Course Requirements	Cr. Hrs.
Business Administration 1001, 3056, 4056, 4076	12
Finance 3301	3
Entrepreneurship Electives***	9
Total	24
Grand Total	120

* See General Education Requirements in the section on University Regulations.

** At least 6 hours must be at or above the 2000 level.

*** To be selected from BA 3090, BA 3091, MANG 3070, MANG 3071, MANG 4057, MANG 4058, FIN 4422, or electives approved by the Department of Management. Students interested in entrepreneurial ventures in a particular area are encouraged to seek approval for electives in their areas of interest from the Department of Management.

Department of Marketing and Logistics Mission

The mission of the Department of Marketing and Logistics is to provide an intellectual environment to support the educational needs of students pursing knowledge of marketing in a global marketplace.

CURRICULUM IN MARKETING

Non-College of Business Administration

Course Requirements	Cr. Hrs.
English 1157, 1158 or 1159*	6
English Literature*	6
Humanities and Arts*[1]	6
Mathematics* 1115 or 1125, 2314	6
Sciences*	11
Social Sciences*[1]	6
Non-Business Electives*	9
Total	50

College of Business Administration

Course Requirements	Cr. Hrs.
Accounting 2100, 2130	6
Business Administration 2780, 3010	6
Business Electives	9
Economics 1203, 1204	6
Finance 3300	3
Management 2790, 3401, 3402, 4480	12
Quantitative Methods-B&E 2786, 2787	4
Total	46

Department of Marketing and Logistics

Course Requirements	Cr. Hrs.
Marketing 3501, 3505, 3510, 3585, 4580, 4590	18
Marketing Electives [2]	6
Total	24
Grand Total	120

* See General Education Course Requirements in the section on University Regulations.

[1] Must be 3000 or 4000 level courses.

[2] At least six hours must be at or above 2000 level.

Student must achieve a C or better in all required courses in the marketing major and a C average overall.

Minor in Marketing:

Students wishing to minor in marketing may do so by completing 18 credit hours in marketing courses at or above the 3000 level with a letter grade of C or better in each course. The student must take: Marketing 3501, 3505, 3510, and a minimum of three additional marketing courses at the 3000 or 4000 level.

Honors in Marketing:

An honors program is available to superior students majoring in marketing. Successful completion of the program results in graduation with Honors in Marketing. For admission to the program a student must have grade-point averages of at least 3.25 overall and 3.5 in marketing courses and must have permission of the department and the Honors Program director. Before graduation the student must take six hours of Senior Honors Thesis (Marketing 3599) resulting in an acceptable honors thesis.

College of Education and Human Development

James Meza, Jr., Dean

Mission of the College

The mission of the College of Education and Human Development is to improve teaching and leadership, advance life-long learning, and promote health and wellness through enhanced community partnerships.

The College accomplishes this mission through:

- Baccalaureate, Master's and Doctoral programs of study
- Interaction of practice and theory
- Inclusive practice among diverse populations
- Proactive efforts to optimize health and wellness across the lifespan
- Involvement at local, state, national and international levels
- Generation and dissemination of applied, basic and sponsored research
- Application of current and advanced technology
- Mutually beneficial partnerships to enhance communities and improve schools

Accreditation

The College of Education and Human Development is fully accredited by the National Council for Accreditation of Teacher Education (NCATE), and its certification programs are approved by the Louisiana Board of Elementary and Secondary Education (BESE) and the Louisiana Board of Regents.

Organization of the College

Three academic departments comprise the College of Education and Human Development: Department of Curriculum and Instruction, Department of Educational Leadership, Counseling, and Foundations, and the Department of Special Education and Habilitative Services. The Department of Curriculum and Instruction offers undergraduate degrees, and all departments offer a variety of graduate degree programs. Core coursework (noted as EDUC) is offered to support the teacher education program. In addition to the departments, there are several research, innovation, and service units in the college. A complete listing of current funded programs is available at the college web site (http: //www.ed.uno.edu/).

Programs of Study

The College of Education and Human Development offers both teacher education and human development programs at the undergraduate level. The College also offers non-degree graduate-level programs of study designed to result in initial and add-on teacher certification. These programs are described below in this section of the catalog.

In addition to initial certification programs, the College of Education and Human Development offers several advanced-level programs of study focused on the needs of teachers, school leadership personnel, counselors, community and health agency personnel. These programs are described on the college web site at http://www.ed.uno.edu/.

Teacher Education Programs

All colleges and universities in Louisiana are in the process of redesigning teacher education and school leader preparation programs in response to state and federal improvement initiatives. These initiatives, collaboratively supported by the Louisiana Board of Regents and the Louisiana Board of Elementary and Secondary Education (BESE), are largely aligned with the Blue Ribbon Commission on Teacher Quality and the No Child Left Behind Act. Current initiatives require rapid changes in the programs of study to improve teacher and leadership education. It is critical that candidates remain aware of any changes to a particular program of study. Current information is available through the college office or on the college web site at http://www.ed.uno.edu/.

The Teacher Education Program prepares teachers who will render high quality, professional service in preschool, elementary, middle, secondary schools, and other educational settings. The College's programs are grounded in a performance-based curriculum model aligned with the unit's conceptual framework that supports teachers in the performance of six critical teacher roles and responsibilities:

1. designing and delivering instruction,
2. advocating for students and services,
3. providing support for group practice,
4. managing time, tasks, and environments,
5. using inquiry to inform practice, and
6. improving school and system practice.

The teacher education program is dedicated to understanding and valuing diversity among faculty, staff, and students. The college utilizes the academic resources of the university and community schools to provide candidates with a broad general education and a concentrated content-area education. Professional preparation, together with the relationships of the study of education to other fields of knowledge, is the responsibility of the College of Education and Human Development.

The College of Education and Human Development administers all curricula designed for the preparation of teachers. Three programs are offered for initial teacher certification, one at the undergraduate level and the others at the graduate level. The graduate Transition to Teaching program is designed to assist candidates with a baccalaureate degree in obtaining teacher certification.

Objectives of Teacher Education Programs

Students in teacher education programs at UNO are expected to:

1. Develop a background of knowledge in general education and one or more academic content areas.
2. Develop an awareness of teaching as a profession, which includes an understanding of how teachers promote individual student achievement, school improvement, school and district accountability, and long term professional development.
3. Develop an awareness of the relationship between sociocultural factors and the educative process, which includes developing the ability to communicate effectively with students, parents, other site-based professionals, and persons representing community agencies.
4, Understand, identify, assess, and make plans to accommodate the individual student's emotional, social, physical, and intellectual needs.
5. Demonstrate skills aligned with the Louisiana Components of Effective Teaching, relevant Louisiana Content Standards, and other curriculum reform initiatives in planning, implementing, and assessing instruction and its impact on student learning.
6. Plan instruction that correlates with the Louisiana Educational Assessment Program (LEAP 21).
7. Plan, deliver, and assess instruction that integrates a variety of electronic software applications and related technologies.
8. Acquire and apply skills of classroom management and interpersonal relationships that enhance the educational environment and promote student learning.
9. Demonstrate dispositions expected of effective educators as documented through field experience in school settings.

The University of New Orleans Teacher Education Program is designed using an inquiry-based conceptual framework to support the preparation of reflective practitioners. Information about the conceptual framework may be found on the college web site at http://www.ed.uno.edu/. Following are the key elements of the Teacher Education program of study.

1. Performance-based. The program of study moves beyond simply aligning specific competencies with specific courses. Rather, it supports teacher candidates in the repeated use of competencies in different ways according to the changing demands of students and teaching environments. This model ensures that teachers can produce effective outcomes for their students and for the schools in which they teach.
2. Role-focused. A performance based program focuses on teachers being competent in performing the multiple roles associated with effective teaching. These roles are aligned with the Louisiana Components of Effective Teaching.
3. Thematic content. The program of study is designed for key content related to teaching performance (e.g., assessment) to be addressed at multiple points rather than in singular courses.
4. Sequenced field activities. Opportunity to practice targeted competencies in schools is critical to a performance based program. An effective program of study includes well-crafted field experiences that increase in demand and complexity as the candidate moves through the program.
5. Authentic evaluation. The UNO teacher education program utilizes a professional portfolio as the key tool for evaluating teacher effectiveness and content mastery. Performance review takes place at distinct points during the program of study in order to identify both professional strengths and areas of need. Multiple perspectives are incorporated into the evaluation process.
6. Shared induction. The portfolio format used in the teacher education program is designed to complement the newly adopted requirements for new teachers to develop a professional portfolio in order to pass the (LaTAAP) Louisiana Teacher Assistance & Assessment Program.

Undergraduate Teacher Education Option

Three grade-level certification options are offered at the under-graduate level: Preschool (Pre-Kindergarten - Grade 3), Elementary (Grades 1- 5), and Secondary (Grades 6-12) in a specific content area. Secondary content areas include: English, mathematics, social studies, and science (Biological Sciences, Chemistry, or Earth Sciences). The College of Education and Human Development also offers Elementary-Secondary (Kindergarten -Grade 12) certification programs in Music (vocal), Music (instrumental). The program of study for each certification area (except elementary-secondary (K-12) includes all coursework required for certification in special education, mild/moderate disabilities. Candidates who complete a student teaching with both general and special education experiences and complete additional performance requirements for special education certification are eligible to receive joint certification.

The undergraduate teacher education program of study is divided into four tiers, each associated with a specific block of coursework and set of related field experiences. As the candidate moves from one tier to the next, the scope of the content and field work becomes more complex. Candidate progression from one tier to the next is dependent upon satisfaction of certain criteria, including satisfactory completion of required coursework, satisfactory completion of required field experiences, and meeting any other performance requirements specified for that particular phase (tier) of the program of study.

Throughout the program of study, candidates develop a professional portfolio that contains artifacts resulting from field activities. The candidate organizes the various artifacts as evidence that specific program competencies have been met. Thus, candidate performance is measured via course grades as well as authentic evidence that knowledge, skills, and dispositions related to effective education can be demonstrated in school and classroom settings.

Admission to and Retention in the College of Education and Human Development (Tier II)

To be admitted to the College of Education and Human Development, a student must have met the following criteria:

1. Completed a minimum of 30 hours of coursework with at least a 2.2 grade-point average.
2. Completed a Candidate Acknowledgement Form.
3. Received a Curriculum Program Sheet approved by an Academic Counselor in the College of Education and Human Development.
4. Successfully completed Education 1000 and 1100, including associated field activities.

All candidates in a program of study resulting in certification must also be admitted to a teacher education program (see requirements below). All candidates must submit official transcripts from each college and university attended. One transcript with all transfer credits is not acceptable. This is a requirement for all candidates pursuing initial certification.

The Teacher Education Review and Retention Committee reserves the right to review the candidate's total academic record, evidence of knowledge, skills, and dispositions and other qualifications as they relate to the candidate's potential as an effective teacher.

In view of its responsibility to the teaching profession, the College of Education and Human Development will continuously evaluate the qualifications of a candidate to determine his or her suitability to continue in a teacher education program.

Each candidate is held responsible for knowing degree requirements, for enrolling in courses that fit into his or her degree program, and for taking courses in the proper sequence to ensure orderly progression of work. The candidate is also held responsible for knowing University regulations regarding the standard of work required to continue in the University, as well as the regulations dealing with scholastic probation and enforced withdrawal.

Admission to and Retention in the Teacher Education Program (Tier III)

In addition to the requirements and regulations stated in Undergraduate Teacher Certification: Admission to and Retention in the College of Education and Human Development, applicants for admission to a teacher education program must:

1. Have a grade-point average of 2.5 or higher for a minimum of 45 credits.
2. Take and receive passing scores on the PRAXIS I
3. Complete an application to the Teacher Education Program.
4. Complete Education 2000, 2100, and 2200 and associated field activities or their equivalents.
5. Pass the Core Performance Assessment for the teacher education program.
6. Complete disposition review with a satisfactory rating.
7. Complete English 1158 with a grade of "C" or higher with credit in English 1157 or receive proficiency examination credit in English 1158 with credit in English 1157.
8. Complete a mathematics course at or above the 1000 level approved by the College of Education and Human Development.
9. Complete individualized prescriptive plan if applicable.

Requirements for Field Experience

Teacher education candidates complete a variety of field activities as they progress through the program of study. The field activities provide opportunities for candidates to demonstrate skills associated with effective teaching in diverse school and classroom settings. Each of the four tiers in the program requires a specific minimum number of field experience hours and completed field activities. Specific information on field experience requirements may be found at the college web site at http://www.ed.uno.edu/.

Requirements for Student Teaching (Tier IV)

Application for student teaching must be submitted to the Office of Field Experiences during Tier III one semester prior to beginning the student teaching semester (Tier IV). Candidates expecting to student teach in the fall semester must apply on or before January 31. Candidates expecting to student teach in the spring semester must apply on or before August 31.

A candidate will only be permitted to enroll in student teaching (9 hours) and EDUC 4000 (3 hours) during the student teaching semester. Candidates are permitted to schedule student teaching when they have met the following requirements:

1. Completion of all other courses in the certification and degree program except for student teaching and EDUC 4000 (must be taken concurrently with student teaching).
2. The attainment of senior standing in a Teacher Education Program in the College of Education and Human Development with a minimum grade point average of 2.5.
3. Completion of all courses in professional education with a grade of "C" or higher. Candidates in secondary education and combined elementary-secondary education must also complete all courses in the major teaching field with a grade of "C" or higher. Candidates must meet or exceed content/performance GPA for specific content area.
4. Pass Tier III performance requirements for the certification area pursued.
5. Complete disposition review with a satisfactory rating.
6. Approval of the Director of Field Experiences.
7. Transfer candidates must have completed all Tier III course-work in residence at UNO.
8. Complete individualized prescriptive plan if applicable

Note: The College of Education and Human Development recommends that candidates take PRAXIS II examinations one semester prior to student teaching.

Requirements for Program Completion and Graduation

A candidate must meet all the requirements for a degree out-lined in one catalog. A candidate may elect any catalog in force during his or her enrollment at the University, provided enrollment is continuous. A candidate who breaks enrollment (either voluntarily or by compulsion) for two consecutive semesters may not elect a catalog earlier than the one in force at the time of re-entry. Under no circumstances may a catalog more than 10 years old be used.

Candidates pursuing degree programs that include Louisiana teacher certification should note that certification requirements are mandated by the Louisiana Board of Elementary and Secondary Education. When the State Board makes changes in certification requirements, the content of associated degree programs change accordingly. For this reason, candidates in the College of Education and Human Development are expected to maintain close communication about degree and certification requirements through a College Academic Counselor or Faculty Advisor throughout their program of study.

A candidate may graduate from the College of Education and Human Development upon satisfactory fulfillment of the following requirements:

1. Completion of the general degree requirements of the University.
2. Completion of the requirements for a bachelors degree in either preschool, elementary, secondary, or elementary-secondary education.
3. Demonstration of all required performances and dispositions via a successful review of a professional portfolio and related evidence.
4. For candidates in preschool and elementary education:
   a. A minimum grade of "C" in each course in professional education and each course in the focus area.
   b. Achievement of an overall grade point average of 2.5 and a grade-point average in professional education of 2.0.
   c. Meet or exceed content/performance GPA for specific content area.
5. For candidates in secondary and elementary secondary education:
   a. minimum grade of "C" in each course in professional education and in each course in the academic content area(s).
   b. Achievement of an overall grade-point average of 2.5 and a 2.0 grade-point average in professional education and the academic content area(s).
   c. Meet or exceed content/performance GPA for specific content area.
6. Candidates seeking teacher certification through a baccalaureate degree program must take and pass PRAXIS subject assessment(s) and content area test(s) and the Principles of Learning and Teaching prior to program completion and graduation.

Louisiana Teacher Certification

In addition to the graduation requirements listed above, a candidate must meet the following requirements of the State of Louisiana in order to be eligible for a Louisiana teacher's certificate.

1. Be admitted to and graduate from a state approved teacher education program. (Teacher education programs in the College of Education and Human Development at the University of New Orleans are state approved).
2. Achieve a minimum grade point average of 2.5.
3. Pass all specified PRAXIS Series Examinations.
4. Receive a recommendation for certification by an appropriate University official.

Transfer Students

Transfer credits will be valid for degree completion if the course content matches the content and/or performances of a course in the College of Education and Human Development curriculum. In most cases, transfer credit will not be awarded for Tier III coursework. The College may require the validation of credits earned more than eight years prior to a candidate's admission to the College in order to approve the transfer of credits into a degree program. Candidates transferring into the program should also note the provisions in the section, "Requirements for Student Teaching."

Honors Degree in Education

An Honors Degree in Education is available to qualified majors and open (but not limited to) candidates enrolled in University Honors. The Honors Degree in Education is available for students majoring in Preschool, Elementary, Secondary Education, and Elementary Secondary Education.

To graduate with Honors in Education, education majors must successfully complete the following:

1. Fulfill the usual requirements for education majors.
2. Maintain a minimum cumulative grade-point average of 3.5 in professional courses and 3.25 overall.
3. Maintain a 3.25 grade-point average in teaching major.
4. Establish an Honors Advisory Committee consisting of two College of Education and Human Development faculty members and one faculty member from the teaching major.
5. Complete a minimum of three semester hours in course work approved by the Honors Advisory Committee.
6. Complete successfully a six-hour Honors Thesis (Curriculum and Instruction 3999) approved by the Honors Advisory Committee.
7. Perform satisfactorily in an oral examination of an honors thesis in education.

Requirements for Bachelor's Degree in Early Childhood Education Certification in Grades Pre-Kindergarten through Third

The curriculum in Early Childhood education has five components:

1. general education,
2. focus area,
3. knowledge of the learner and the learning environment,

4. methodology and teaching, and
5. special education.

College of Education and Human Development

Course Requirements	Cr. Hrs.
Curriculum and Instruction 3140, 3141, 3150, 3151, 3160, 3161, 3400, 3410, 3411, 3425, 3426, 3340, 3341, 3440, 3500, 3510, 3511, 3520, 3521, 3530, 3531, 3540, 3541	39
Education 1000, 1100, 2000, 2100, 2200, 3000, 3100, 3110, 4000	23
Education 4950	9
Human Performance 2320	3
Library Science 3100	3
Special Education 3001, 3610, 3611, 3620, 3621, 3640, 3641	10
Total	87

Non-College of Education and Human Development

Course Requirements	Cr. Hrs.
English 1157 and 1158 or 1159	6
English Literature	6
Mathematics 1021 and 1023 and 1031 or 1115	9
Biological/Physical Science	12
Geography 1001 or 1002	3
History 2501 or 2502	3
Arts	3
Total	42
Grand Total	129

Requirements for Bachelor's Degree in Elementary Education Certification in Grades One Through Five

The curriculum in Elementary Education has five components:

1. general education,
2. focus area,
3. knowledge of the learner and the learning environment,
4. methodology and teaching, and
5. special education.

College of Education and Human Development

Course Requirements	Cr. Hrs.
Curriculum and Instruction 3140, 3141, 3150, 3151, 3160, 3161, 3400, 3410, 3411, 3425, 3426, 3340, 3341, 3440, 3540, 3541	27
Education 1000, 1100, 2000, 2100, 2200, 3000, 3100, 3110, 4000	23
Education 4910	9
Human Performance 2320	3
Library Science 3100	3
Special Education 3001, 3610, 3611, 3620, 3621, 3640, 3641	10
Total	75

Non-College of Education and Human Development Course

Course Requirements	Cr. Hrs.
English 1157 and 1158 or 1159	6
English Literature	6
Mathematics 1021, 1023, 1115, 2314	12
Biological/Physical Science	12
Science Elective	3
Geography 1001 or 1002	3
History 2501 or 2502	3
Political Science	3
Anthropology, Economics, or Sociology	3
Arts	3
Total	54
Grand Total	129

Requirements for Bachelor's Degree in Secondary Education Certification in Grades 6 - 12

The curricula in secondary education have five components:

1. general education,
2. focus area(s),
3. knowledge of the learner and the learning environment,
4. methodology and teaching, and
5. special education.

Most programs of studies require a primary and secondary focus area. The primary focus area is the area for which certification is desired. The program of study includes sufficient coursework, in addition to the requirement to pass the PRAXIS examination in the primary focus area, to result in a certification award. The secondary focus area allows candidates to take a sufficient amount of coursework to pursue add-on certification in a second area once initial certification is awarded. All programs of study include the coursework required for add-on certification in special education mild/moderate disabilities. Candidates who complete a student teaching experience that also focused on the needs of learners with mild/moderate disabilities are eligible for add-on certification in special education.

Secondary (Grades 6 - 12) certification are as offered include:

1. Biology
2. Chemistry
3. English
4. Earth Science
5. Math
6. Social Studies

Any of the certification areas listed above can be selected as a secondary focus area. The length of the program of study will vary according to the combination of primary and secondary focus areas selected. Candidates should consult with a College of Education and Human Development Academic Counselor or refer to the college web site at http://www.ed.uno.edu/ for detailed information regarding each program of study.

Requirements for Bachelor's Degree in Elementary-Secondary Education

Curricula in this category are designed for students preparing to teach in specified areas, grades K-12. The curricula in secondary education have three major components: I. General Education; II. Professional Education; III. Academic Specialization.

A total of not less than 128 semester hours is required for graduation.

Requirements for Bachelor's in Music Education Certification in Instrumental Music

College of Education

Course Requirements	**Cr. Hrs.**
Curriculum and Instruction 4432	3
Education 1000, 1100, 2000, 2100, 2200	11
Educational 3000, 3001, 3110, 3100	10
Educational 4000 and 4930	12
Total	36

Non-College of Education

Course Requirements	**Cr. Hrs.**
English 1157 and 1158 or 1159	6
English Literature	6
History 2501 and 2502	6
Mathematics 1031 and 1032	6
Music 1101, 1102, 1705, 1706,1707, 1708	16
Music 2005, 2101, 2102, 2103, 2104, 2111, 2112, 2201, 2202	19
Music 3111, 3112, 3382, 3384, 3950	8
Music (Applied Lessons)	14
Music 1908/1910	7
Music 1900 (required each semester for full time students)	0
Music 1901	2
Music 1909 (required each semester for full time students)	0
Physical Science	3
Science-Biology 1051, 1053, 1061 and 1063	8
Total	101
Grand Total	137

1. Students wishing to be admitted into the program must present a prepared audition demonstrating their potential for the successful completion of the required classes and the required public recital.
2. The major instrument will normally be selected from strings, brass, woodwinds, or percussion. A keyboard instrument may be selected provided that the student can play a band or orchestra instrument well enough to perform with one of the instrumental ensembles for the required number of semesters. The student must complete a minimum of 14 hours (7 semesters) of applied instruction and present a half recital (Music 3950).
3. As a requirement for graduation, students will be required to satisfy the faculty that they have reached an acceptable level of professional competence on the major instrument in both sight-reading and prepared performance. This evaluation will be based on active participation in the recital hour, ensembles, and performance before a faculty jury each semester that they are enrolled in private instruction.
4. All Instrumental Music Education majors must enroll in and fulfill the requirements for Music 1900 (Recital Hour) and Music 1909 (Music Education Forum) each semester that they are a full-time student, with the exception of the student teaching semester.
5. All students must meet the following requirements in addition to those listed above:
   a. Musicianship through Music 2104 or equivalent as determined by placement examination
   b. A minimum level of keyboard proficiency is required for successful completion of the program. Students must pass a proficiency examination. Students may elect to take Class Piano (Music 1407 and 1408) or applied lessons to prepare for the examination.
   c. A minimum of seven credits in performing groups is required for graduation. Full-time students must enroll in one performing group (Music 1902 or 1908) each semester, excluding the student teaching semester, even though the seven hour requirement may have been fulfilled. Any student, whether part-time or full-time, who is enrolled in Applied Music Courses must enroll in a performing group.
6. Refer to "Admission to a Teacher Education Program" for requirements necessary for admission to the Teacher Education Program.

Requirements for Bachelor's in Music Education Certification in Vocal Music

College of Education

Course Requirements	**Cr. Hrs.**
Curriculum and Instruction 4432	3
Education 1000, 1100, 2000, 2100, 2200	11
Educational 3000, 3001, 3110, 3100	10
Educational 4000 and 4930	12
Total	36

Non-College of Education

Course Requirements	**Cr. Hrs.**
English 1157 and 1158 or 1159	6
English Literature	6
History 2501 and 2502	6
Mathematics 1031 and 1032	6
Music 1101, 1102, 1709, 1710	14
Music 2005, 2101, 2102, 2103, 2104, 2111, 2112, 2201, 2202	19
Music 3111, 3112, 3382, 3384, 3950	8
Music	2
Music (Applied Lessons)	14
Music 1908/1910	7
Music 1900 (required each semester for full time students)	0
Music 1909 (required each semester for full time students)	0
Physical Science	3
Science-Biology 1051, 1053, 1061 and 1063	8
Total	125
Grand Total	149

1. Students wishing to be admitted into the program must present a prepared audition demonstrating their potential for the successful completion of the required classes and the required music proficiencies.
2. Students will be required to satisfy the faculty that they have reached an acceptable level of professional competence in both sight-reading and prepared performance. This evaluation will be based on active participation in the recital hour, ensembles, and performances before a faculty jury each semester that they are enrolled in private instruction.
3. All Instrumental Music Education majors must enroll in and fulfill the requirements for Music 1900 (Recital Hour)

and Music 1909 (Music Education Forum) each semester that they are a full-time student, with the exception of the student teaching semester.

4. The applied major for this curriculum will be either voice or piano. The student must complete a minimum of 14 hours (7 semesters) of applied instruction and present a half recital (Music 3950). Voice majors must demonstrate a minimum proficiency in piano by passing a proficiency examination. Students may elect to take Class Piano (Music 1407 and 1408) or applied lessons to prepare for the examination. Piano majors must demonstrate a minimum proficiency in voice by passing a proficiency examination. Students may elect to take applied lessons to prepare for the examination.
5. All students must meet the following requirements in addition to those listed above:
   a. Musicianship through Music 2104 or equivalent as determined by placement examination
   b. A minimum of seven credits in performing groups is required for graduation. Full-time students must enroll in one performing group (Music 1904, 1905, 1906, or 1950) each semester, excluding the student teaching semester, even though the seven-hour requirement may have been fulfilled. Any student, whether part-time or full-time, who is enrolled in Applied Music Courses must enroll in a performing group.
6. Refer to "Admission to a Teacher Education Program" for requirements necessary for admission to the Teacher Education Program.

Transition to Teaching (Alternate) Certification Options

Two options for obtaining teacher certification are offered at the graduate level. The Non-Master's Alternate certification program is designed to provide all of the coursework and experiences necessary to obtain Louisiana certification without pursuing an academic degree. The second Transition to Teaching option is the Practitioner Program, a program designed to assist new teachers in gaining certification on a "fast track" schedule. Admission to this program is restricted as candidates are selected by the employing school district.

Non-Degree Certification Only Teacher Certification Option (Alternate Certification Program)

Certification Areas Offered

Certification areas include: Pre-Kindergarten-Grade 3, Grades 1-5, Grades 4-8, and Grades 6-12 in a specific content area, Special Education - Mild/Moderate Disabilities. Secondary content areas include: English, mathematics, social studies, and science (Biology, Chemistry, or Earth Science). This program of study assists candidates in applying content and skills within school settings while completing coursework. Candidates concurrently enroll in an internship each fall and spring semester during the entire course of study. The pace of the program ranges from one to three years, depending on the number of credit hours taken. Additional Non-Master's Alternate certification programs are offered in the following areas: special education (early intervention, significant disabilities).

Program Admission

Admission to this program requires an overall grade point average of 2.5 and passage of PRAXIS I and PRAXIS II, Content Area. PRAXIS I is not required for candidates who already have a Masters degree. All candidates must submit official transcripts from each college and university attended. One transcript with all transfer credits is not acceptable. This is a requirement for all candidates pursuing initial certification. All initial advising for this program occurs via the College of Education and Human Development Academic Counselors. Following initial advising, candidates are advised by a Faculty Advisor for the duration of their program of study.

Program of Study

The program of study varies according to the certification area desired, the academic and experience background of the candidate, and the performance of the candidate in the program. Details on the program of study for each certification option may be found at the college web site at http://www.ed.uno.edu/.

Field Experience Requirements

Throughout the program, candidates complete field activities in school and classroom settings. Field work is supported through enrollment in 6 credit hours of an internship, taken in a specific sequence. More information on field experience requirements may be found at the college web site at http://www.ed.uno.edu/.

Requirements for Completing Program

All certification programs in the College of Education and Human Development are performance-based. Candidates develop a professional portfolio to document their ability to demonstrate knowledge, skills, and dispositions associated with effective teaching. Completion of the program of study requires successful performance in both coursework and applied field activities. Candidates must pass specific requirements to move from Level 1 of the program to Level 2. Additional assessments must be taken and passed to move from Level 2 to the capstone Internship (Level 3). Candidates must pass a final assessment to complete the program and be recommended for teaching certificate. More information on candidate assessment may be found at the college website at http://www.ed.uno.edu/.

Louisiana Teacher Certification

Candidates who successfully complete all program requirements are recommended to the Louisiana Department of Education for teaching certificate. All conditions listed above under "Louisiana Teacher Certification" must be satisfied. Candidates enrolled in this program while teaching may be eligible for a Provisional Teaching Certificate upon recommendation by the hiring school district.

Continuation of Program of Study to Receive a Masters Degree

Dependent on performance, candidates may apply up to 12 credit hours of the coursework completed for certification toward a Masters of Education degree. Additional information on this option may be found at the college website at http://www.ed.uno.edu/.

Practitioner Certification Option

Program Admission

Enrollment in the Practitioner Certification program is restricted to candidates jointly selected by university and school district personnel. Candidates must have an agreement for employment by a participating school district for the subsequent school year. Admission takes place in the spring via a formal application process. Admission to this program requires an overall grade point average of 2.5 and passage of PRAXIS I and PRAXIS II, Content Area. PRAXIS I is not required for candidates who already have a Masters degree. All candidates must submit official transcripts from each college and university attended. One transcript with all transfer credits is not acceptable. This is a requirement for all candidates pursuing initial certification. More information on the admission process may be found at the college website at http://www.ed.uno.edu/.

Program of Study

The program begins with an intensive 9-semester-hour block of coursework and field activities in the summer. During the initial year of teaching, candidates enroll in 3 semester hours of course-work during both the fall and spring semesters. Concurrently, candidates enroll in 3 semester hours of internship during each semester. Additional coursework and internship may be prescribed based on candidate performance. More information on the program of study may be found at the college website at http://www.ed.uno.edu/.

Field Experience Requirements

Throughout the program, candidates complete field activities in school and classroom settings. Field work is supported through enrollment in an internship taken during the fall and spring semesters during the first year of teaching. Candidates meet in cohort groups to receive support on field activity completion and evaluation. Candidates must successfully pass assessment requirements to advance from the summer portion of the program to the fall semester and from the fall portion of the program to the spring semester. More information on field experience requirements may be found at the college website at http://www.ed.uno.edu/.

Requirements for Completing Program

All certification programs in the College of Education and Human Development are performance-based. Candidates develop a professional portfolio to document their ability to demonstrate knowledge, skills, and dispositions associated with effective teaching. Completion of the program of study requires successful performance in both coursework and applied field activities. More information on candidate assessment may be found at the college website at http://www.ed.uno.edu/.

Louisiana Teacher Certification

Candidates who successfully complete all program requirements are recommended to the Louisiana Department of Education for certification award. All conditions listed above under "Louisiana Teacher Certification" must be satisfied. Candidates enrolled in this program receive a Provisional Teaching Certificate during their program of study.

Continuation of Program of Study to Receive a Masters Degree

Dependent on performance, candidates may apply a portion of the coursework completed for certification toward a Masters of Education degree. Additional information on this option may be found at the college website at http://www.ed.uno.edu/.

PRAXIS Requirements

All candidates pursuing initial teaching certification must successfully pass three types of PRAXIS examinations prior to program completion and recommendation for certification. The point in time that the candidate takes each examination varies according to the certification program option pursued. The following describes when each PRAXIS test is taken:

PRAXIS I PPST

Undergraduate Program: Prior to Admission to Tier III

(Teacher Education Program)

Non-Degree Certification Only: Must be passed prior to admission to the program Practitioner Program: Must be passed prior to admission to the program PRAXIS II Content Area Undergraduate Program: Taken prior to Tier IV (Student Teaching) Must be passed prior to graduation Non-Degree Certification Only: Must be passed prior to admission to the program Practitioner Program: Must be passed prior to admission to the program PRAXIS II Principles of Learning & Teaching Undergraduate Program: Must be passed prior to graduation Non-Degree Certification Only: Must be passed prior to completion of the program Practitioner Program: Must be passed prior to completion of the program.

Add-On Certification Option

The College of Education and Human Development offers several programs of study that result in an additional area of certification. These programs are designed for candidates who already hold a current Louisiana Teaching Certificate. More information on these programs of study may be found at the college website at http://www.ed.uno.edu/.

College of Engineering

Russell E. Trahan, Dean

The College of Engineering offers undergraduate degree programs in civil engineering, electrical engineering, mechanical engineering, and naval architecture and marine engineering. These curricula provide an opportunity for professional career training in the traditional fields of engineering in preparation for industrial employment or graduate studies in various fields of engineering.

Students planning to study engineering should make maximum use of those courses available in high school which have a direct bearing upon college-level education. It is also advisable to enroll in introductory courses in the physical sciences, notably chemistry, physics, and computer science, if available. If possible, the following work should be completed:

Mathematics: Four years, including algebra, geometry, and trigonometry

Science: Two or three years

Social Science: Three years

Successful completion of certain courses in the above categories allows a student, after being admitted to UNO, to apply for advanced standing or bypassed credit. Additionally, all basic mathematics courses below the level of calculus are also taught at UNO but do not carry degree credit for engineering majors.

The undergraduate degree programs in engineering provide a broad engineering education in preparation for:

1. Professional employment, mainly as civil, electrical, mechanical engineering, naval architecture and marine engineering in design, development, production, operation, and sales, or
2. Graduate study in the various fields of engineering and the physical sciences.

Emphasis is placed on fundamentals in the basic fields followed by applications in the areas of engineering design and planning.

Accreditation

The following undergraduate programs in engineering offered by the College of Engineering, University of New Orleans, are accredited by the Accreditation Board for Engineering and Technology (ABET):

Bachelor of Science Degree and Cooperative Education Programs in:

Civil Engineering
Electrical Engineering
Mechanical Engineering
Naval Architecture and Marine Engineering

Admission to the College of Engineering

All engineering freshmen admitted to the University enter in a pre-engineering classification. This classification begins with the letter "P" (e.g., pre-electrical engineering is PENEE). Students remain in this classification until they meet the admission requirements of the College. In general, students will be admitted to the College of Engineering if they meet the following criteria:

1. Complete a minimum of:
   a. 12 semester hours of non-remedial coursework with at least a 3.0 grade-point average on both UNO and all work attempted, or
   b. 18 semester hours of non-remedial coursework with at least a 2.5 grade-point average on both UNO and all work attempted, or
   c. 24 semester hours of non-remedial coursework with at least a 2.2 grade-point average on both UNO and all work attempted.
2. Completed appropriate courses in algebra and trigonometry or equivalent advanced placement to qualify for registration in a first course in calculus.
3. Completed 24 credits with an overall 2.5 GPA for new transfer students from colleges and universities other than UNO.

Requirements for the Baccalaureate Degree

The degree of Bachelor of Science in Engineering may be granted upon satisfactorily meeting the following requirements:

1. Completion of a program of study selected from the following four fields: civil engineering, electrical engineering, mechanical engineering, and naval architecture and marine engineering.
2. Approval of all electives by the College of Engineering.
3. Completion of all University General Degree Requirements.
4. Obtain a cumulative grade-point average of 2.0 ("C" average) in:
   a. all courses attempted anywhere, at any time (this requirement includes all transfer work, whether applicable to a particular degree or not);
   b. all work taken at UNO;
   c. all engineering courses, completed at UNO or elsewhere;
   d. the major subject
   e. the last 60 hours before graduation.
5. Satisfy the residency requirement of the University (two semesters, or four summer terms, completion of the last 30 hours while enrolled in UNO's College of Engineering.)

Students entering the College of Engineering from pre-engineering or junior colleges are limited in the number of semester hours credit which may be transferred from such pre-engineering or junior colleges to one-half the number of semester hours credit required for completion of their specific degree programs (68 hours in the case of the four engineering degree options offered at UNO).

Because of the continually evolving curricula in the four major engineering disciplines, civil, electrical, and mechanical engineering, as well as naval architecture and marine engineering, students are strongly encouraged to complete degree requirements as stated in an official curriculum which is in effect one year prior to their expected date of graduation.

The latest curriculum will always be the one most up-to-date, reflecting technological developments and criteria established by ABET, the national accrediting board for engineering curricula.

Students are expected to become familiar with their specific engineering curriculum and the catalog that they wish to use for the evaluation of their degree credits. Prior to enrolling for any of the last 30 hours, students must file an application for candidacy for degree with the College of Engineering. Upon receipt of this form, the appropriate department chairman, in consultation with the student, will prepare for the dean's approval a graduation check-out sheet that specifies the course (and academic average, if applicable) requirements to be satisfied for graduation. This process assures that the student's final transcript meets all requirements for the baccalaureate degree in the option chosen. Application forms can be obtained from the office of the College of Engineering.

Three-Plus-Two Program with Xavier, SUNO, Loyola, Dillard

DUAL DEGREE PROGRAM

The University of New Orleans (UNO) has established a cooperative dual degree program in physics/engineering. The program is five years in length and leads to a Bachelor of Science degree in Physics from the cooperating university and a Bachelor of Science degree in engineering from UNO. Students attend the cooperating university for three years, majoring in physics, and then transfer to UNO for two additional years, concentrating in one of the four professional engineering degree programs: civil, electrical, mechanical, or naval architecture and marine engineering. Students are awarded the two baccalaureate degrees upon completion of the five-year program.

Program Requirements:

During the first three years of the program the student takes basic arts and sciences courses. The student is then eligible to pursue UNO's B.S. degree curricula in engineering. Registration, in writing, at the UNO College of Engineering is required. Students will not be permitted to graduate under catalogs dated prior to the date of actual written UNO registration. At the time of registration the student will receive advising necessary to direct and complete the program. The student must be admitted to UNO and to the College of Engineering (not pre-engineering) for the last 60 hours of the engineering degree. Cross-registered courses taken before admission to the College of Engineering do not count in the 60 hours. Students not admitted before the last 60 hours will be considered as transfer students, not as 32 students. All dual degree students must complete English 1158 with a grade of C or better. Additionally, all students must pass the appropriate English proficiency exam before being awarded a degree at either university. General degree requirements must be completed before the baccalaureate degrees can be awarded. For details, contact the College office.

Credits gained at the two institutions will be mutually accepted. Engineering courses completed at UNO will be counted, in part, as electives in the physics program, and physics courses taken will be counted, in part, as electives in the UNO engineering programs. To be eligible for UNO's B.S. degree curricula in engineering, junior-year students must have a 2.5 grade-point average (on a 4-point system). Students must earn a grade of 2.0 or better in UNO in all science and mathematics courses, a 2.0 or better in UNO engineering courses, and a 2.0 or better in all courses taken during the last 60 hours of courses offered for degrees.

Program Planning

Students must schedule counseling sessions at regular intervals to develop a program of study within the constraints of the various options which is best suited to accomplish their goals for a professional career in engineering or for advanced study. Advantage should be taken of the specific expertise of various faculty members in the traditional and contemporary fields of engineering. Counseling will involve pre-advising (twice a year, toward the end of the spring and the fall semesters), providing information on particular programs, the type of work an engineer performs in industry (industrial tours for seniors), advanced educational opportunities for the above average undergraduate student, and the short and long-range outlook of the employment market for engineers (in coopera-

tion with the Office of Career Placement and Cooperative Education).

A normal semester course load for a student holding no outside employment is 15-18 hours. Deficiencies or unsatisfactory grades may require the student to attend summer school or to extend the time of study beyond the normal four-year period. No student may register for more than 19 hours without consent of the dean (See Maximum and Minimum Work) and no student on academic probation may enroll in more than 16 hours. New freshmen are strongly advised to limit their initial registration to 15 hours. All students are expected to become familiar with the general education requirements, attendance regulations, grade point requirements, and rules concerning the maintenance of good academic standing appearing elsewhere in this catalog.

Electives

Non-science and engineering electives should be chosen so as to satisfy the particular requirements for the student's major. Duplication of subject matter should be avoided. Degree credit will not be given for courses covering subject matter similar to that in a course for which the student has already earned credit. The student is advised to seek counsel prior to enrolling in science electives. Courses in health and physical education, introductory foreign languages, military science, nursing, agriculture, business communication and office systems, books and libraries, and engineering technology will normally not be accepted for engineering degree credit.

Honors in Engineering

An honors program is available to superior students (both engineering majors and non-majors). Successful completion of the program results in graduation With Honors in Engineering. For admission to the program a student must have junior or senior standing, at least a 3.5 average in engineering courses taken, at least a 3.25 average overall, and consent of the College of Engineering and the director of the Honors Program. Graduation with honors in engineering requires completion of a senior honors thesis (six College of Engineering/79 hours of degree credit) and attainment of the above mentioned Chemistry 1014 or equivalent 4 grade-point averages. For further information, contact the Director Earth and Environmental Sciences 1001 [3] of the Honors Program.

Civil Engineering

Civil Engineering applies the laws and principles of the basic sciences, primarily mechanics, to the design, modification, construction, and building of structures of all kinds, to resist and harness the forces of nature, and to improve the quality of life. Civil engineers are responsible for planning, designing, constructing, and operating structures, water-supply and waste-disposal systems, air- and water- pollution-control systems, flood-control systems, and transportation systems. In essence, civil engineers are concerned with the environment of modern society.

Educational Objectives of the Civil Engineering Program

The educational objectives of the Civil Engineering Program at Electrical Engineering UNO are to:

1. Produce civil engineering graduates with a proficiency in the areas of specialization that serve the needs of Greater New Orleans area and other major urban areas.
2. Support the urban mission of the University, with particular emphasis on serving qualified non-traditional students as well traditional students in the Greater New Orleans Area.
3. Provide the educational needs for regional industries and the related civil engineering professions.
4. Maintain a quality program that is compatible with ABET criteria.

The Department of Civil and Environmental Engineering at UNO offers a four-year program leading to the Bachelor of Science in Civil Engineering degree. The UNO Civil Engineering curriculum is accredited by the Accrediting Board for Engineering and Technology (ABET). The University also offers graduate programs leading to the Masters of Science in Engineering and Ph.D. in Engineering and Applied Science.

CURRICULUM IN CIVIL ENGINEERING

Department of Civil and Environmental Engineering

Course Requirements	**Cr. Hrs.**
Civil Engineering 2301, 2310, 2311, 2350, 2351	14
Civil Engineering 3300, 3318, 3323, 3340, 3341, 3356, 3390	21
Civil Engineering 4318, 4319, 4321, 4323, 4340, 4358, 4359, 4386, 4390, 4399	27
Civil Engineering electives[1]	6
Total	67

College of Engineering

Course Requirements	**Cr. Hrs.**
Mechanical Engineering 2750, 3716	4
Engineering 1000	1
Electrical Engineering 2500	3
Mechanical Engineering 3770	3
Total	11

Non-College of Engineering

Course Requirements	**Cr. Hrs.**
English 1157, 1158, 2152	9
Philosophy 2244	1
Mathematics 2111[2], 2112, 2221	13
Physics 1061, 1062, 1063, 1065	8
Biology Elective[3]	3
Social Science Elective [2]	3
Chemistry 1014 or equivalent	4
Geology 1001	3
Literature Elective [3]	6
Arts Elective[3]	3
Social Science or Humanities Elective [3]	3
Total	56
Grand Total	134

[1] Electives must be selected from 4000-level courses and must include a minimum of six design credits.

[2] To graduate with a degree in engineering, a student must satisfy the general degree requirements of the University.

[3] Students who are not strong in math should take the three-semester mathematics sequence, Mathematics 2107 (3cr.), Mathematics 2108 (3cr.), and Mathematics 2109 (4cr.), in place of the two-semester sequence, Mathematics 2111 (5cr.) and Mathematics 2112 (5cr.)

Electrical Engineering

The Department of Electrical Engineering offers the Bachelor of Science in Electrical Engineering with concentrations in computer engineering and electrical engineering. The UNO electrical engineering curriculum is accredited by the Accreditation Board for Engineering and technology (ABET).

The Department of Electrical Engineering has the goal of producing well-educated electrical and computer engineers who will be successfully employed in industry at the regional and national levels or who will continue on with graduate studies. The curriculum is designed for maximum breadth of coverage of electrical and computer engineering topics while allowing considerable depth in certain areas chosen by each student. The majority of the department's graduates are employed in the electronics, communications, computer, power, oil and petro-chemical, and consulting industries. There are curriculum requirements included in the program to support employment in any of these areas. Other areas of electrical and computer engineering area available in the curriculum via electives.

Students may select a concentration in either electrical engineering or computer engineering. The traditional areas of electronics, power, communications, and controls are emphasized in the Electrical Engineering Concentration, while the Computer Engineering Concentration emphasizes the areas of digital electronics, computer architecture, operating systems, and software development. Electives are available which allow students in either concentration to obtain breadth and depth in other areas.

In order to support the urban mission of the University, the undergraduate program has particular emphasis on serving both the tradition and non-traditional students in the New Orleans region.

Electrical Engineering Program Educational Objectives

The following is a list of the electrical engineering program educational objectives. These objectives were developed by the faculty in consultation with the Electrical Engineering Industrial Advisory Board and were approved by electrical engineering students.

1. Using fundamental knowledge of mathematics, science, and engineering, graduates area able to identify, formulate, analyze, and solve electrical engineering problems. These problems include the specification. design, and implementation of systems and/or process that meet performance, cost and safety requirements.
2. Graduates are able to communicate effectively.
3. Graduates area able to function effectively individually and within teams.
4. Graduates have aboard education necessary to understand the impact of electrical engineering on society, the ethical responsibility of electrical engineering, and the need for life-long learning throughout his or her career.
5. Graduates are proficient in the use of modern engineering techniques and tools, with emphasis on the role that computers and information technology play in engineering.
6. The program will undergo continuous improvement via a process which obtains feedback from graduates and constituent industry to ensure that all graduates are well prepared for the modern workplace.

The Electrical Engineering Curricula are accredited by the Accreditation Board for Engineering and Technology (ABET)

CURRICULUM IN ELECTRICAL ENGINEERING

Electrical Engineering Concentration

Department of Electrical Engineering

Course Requirements	Cr. Hrs.
Electrical Engineering 2510, 2550, 2551, 2582, 2586	11
Electrical Engineering 3512, 3516, 3517, 3530, 3540, 3543	12
Electrical Engineering 3511, 3521 or 3535, 3574	4
Electrical Engineering 3091, 3092, 3522, 3560, 3572, 3582	19
Electrical Engineering	12
Total	58

College of Engineering

Course Requirements	Cr. Hrs.
Engineering 3090	1
Civil Engineering 2355	3
Total[1]	4

Non-College of Engineering

Course Requirements	Cr. Hrs.
English 1157, 1158, 2152	9
Arts Elective1	3
Mathematics 2111, 2112, 2115, 2221, 2511[2]	19
Physics 1061, 1062, 1063, 1065, 2064	11
Computer Science 1205, 2025	6
Biology Elective[1]	3
Chemistry 1014	4
Philosophy 2244	1
Literature[1]	6
Humanities Elective[1]	3
Economics 2000	3
Social Sciences Elective[1]	3
Total	71
Grand Total	133

[1] All elective courses are subject to approval by the department and the College of Engineering and must satisfy both the general degree requirements and the engineering general degree requirements appearing in this catalog. A list of approved electives in these areas is available. At least one of the humanities or social science electives must be at the 2000 or higher level.

[2] Students who are not strong in math are encouraged to take the three-semester mathematics sequence Mathematics 2107 (3cr.), 2108 (3cr.), and 2109 (4cr.) in place of the two-semester sequence Mathematics 2111 (5cr.) and 2112 (5cr.).

CURRICULUM IN ELECTRICAL ENGINEERING

Computer Engineering Concentration

Department of Electrical Engineering

Course Requirements	Cr. Hrs.
Electrical Engineering 2510, 2550, 2551, 2582, 2586	11
Electrical Engineering 3512, 3516, 3517, 3530, 3540, 3543, 3582, 3583	18
Electrical Engineering 3091, 3092, 3545, 3572	7
Computer Science 3514, 3584, 3585	6
Electrical Engineering Electives[3]	6
Total	52

College of Engineering

Course Requirements	Cr. Hrs.
Engineering 3090	1
Total	1

Non-College of Engineering

Course Requirements	Cr. Hrs.
English 1157, 1158, 2152	9
Arts Elective[1]	3
Mathematics 2111, 2112, 2115, 2221, 2511, 2721[2]	22
Physics 1061, 1062, 1063, 1065, 2064	11
Computer Science 1205, 2025	6
Biology Elective[1]	3
Chemistry 1014	4
Philosophy 2244	1
Literature1	6
Humanities Elective[1]	3
Economics 2000	3
Social Sciences Elective[2]	3
Total	74

Elective Course that can be Engineering or Computer Science	Cr. Hrs.
Total	6
Grand Total	134

[1] All elective courses are subject to approval by the Department and the College of Engineering and must satisfy both the general degree requirements and the engineering general degree requirements appearing in this catalog. A list of approved electives in these areas is available. At least one of the humanities or social science electives must be at the 2000 or higher level.

[2] Students who are not strong in math are encouraged to take the three-semester mathematics sequence Mathematics 2107 (3cr.), 2108 (3cr.), and 2109 (4cr.) in place of the two-semester sequence Mathematics 2111 (5cr.) and 2112 (5cr.).

[3] Students must take a total of 12 credit hours of approved electives. Students may take a maximum of six credit hours of approved computer science electives, making the minimum engineering electives six credit hours. Students may opt to take all 12 credit hours of engineering electives.

Mechanical Engineering

Mechanical engineers apply the principles and laws of the basic sciences to the design, modification, operation, construction, and manufacture of machines and systems. Mechanical engineers are engaged in research, analysis, design, construction, development, testing, and sales of many kinds of mechanical devices. Mechanical engineering deals specifically with mechanisms, gears, cams, bearings, power machinery such as reciprocating and rotary engines, steam and jet turbines, compressors and pumps, various means of transportation such as plans, magnetic suspension trains, surface effect vehicles, and spacecraft, instrumentation, machine computation, and control/guidance systems.

The department strives to serve the needs of regional industries, especially the petrochemical/process, aerospace, and manufacturing industries. A major goal of the department is to provide education for these groups. Various design courses are taught to accommodate this market. Numerous courses are taught in the evening hours to make it convenient for students who work in these industries to attend classes.

The Department of Mechanical Engineering offers the Bachelor of Science in Mechanical Engineering. The University also offers graduate programs leading to the Masters of Science in Engineering, with a concentration in Mechanical Engineering, as well as a Ph.D. in Engineering and Applied Science. The mechanical engineering program is accredited by the Accreditation Board for Engineering and Technology (ABET).

Mechanical Engineering Program Objectives

Consistent with the mission of the University and based on the needs of our constituents, the Department of Mechanical Engineering has adopted the following program educational objectives.

Objective 1. Produce graduates with a proficiency in the general areas of mechanical engineering consistent with Accreditation Board for Engineering and Technology (ABET) criteria.

Objective 2. Provide educational opportunities consistent with supporting the needs of regional industries.

Objective 3. Support the urban mission of the university, with particular emphasis on serving qualified non-traditional students in addition to the traditional students in the Greater New Orleans Area.

Department of Mechanical Engineering

Course Requirements	Cr. Hrs.
Mechanical Engineering 1781, 2711, 2740, 2750, 2785	13
Mechanical Engineering 30203, 3711, 3716, 3720	8
Mechanical Engineering 3733, 3734, 3735	9
Mechanical Engineering 3770, 3771, 3773, 3755, 3776	15
Mechanical Engineering Design electives	9
Total	54

College of Engineering

Course Requirements	Cr. Hrs.
Engineering 3090	1
Civil Engineering 2311, 2350, 2351	7

Electrical Engineering 2500, 3501, 3518	7
Total	15

Non-College of Engineering Course Requirements	Cr. Hrs.
English 1157, 1158, 2152	9
Literature Electives[1]	6
Arts Elective1	3
Social Science Elective[1]	3
Humanities Elective[1]	3
Philosophy 2244	1
Economics 2000	3
Biology Elective[1]	3
Chemistry 4101[4]	4
Computer Science 1201 or 1205	3
Mathematics[4] 2111[2], 2112, 2115, 2221, 2314	19
Physics[4] 1061, 1062, 1063, 1065	8
Total	65
Grand Total	134

[1] A list of approved electives in these areas is included in the Engineering Information Bulletin. At least three of the hours in arts, humanities (excluding literature) and social sciences must be at or above the 2000 level.

[2] Students who are not strong in math should take the three-semester mathematics sequence, Mathematics 2107 (3cr.), Mathematics 2108 (3cr.), and Mathematics 2109 (4cr.) in place of the two-semester sequence Mathematics 2111 (5cr.) and Mathematics 2112 (5cr.).

[3] Mathematics 3221 may be taken in place of Mechanical Engineering 3020.

[4] A grade of C or better is required for all Mathematics, Physics, and Chemistry courses.

Naval Architecture and Marine Engineering

Naval architects and marine engineers work on the design of ships, boats, and offshore structures. Included are the marine systems for shipping raw materials and finished products, the frontiers of deep-sea exploration, and mineral recovery and the operation and servicing of marine systems.

UNO offers the Bachelor of Science in Naval Architecture and Marine Engineering (NAME), the Master of Science in Engineering, and the Ph.D. in Engineering and Applied Science. The UNO Naval Architecture and Marine Engineering curriculum is accredited by the Accreditation Board for Engineering and Technology (ABET). These specialized degrees in Naval Architecture and Marine Engineering prepare majors for careers in the US and international shipbuilding and offshore industries by applying the principles and laws of the basic sciences and mechanics to the design, construction and operation of commercial, naval, and recreational vessels, platforms, and other floating structures.

Mission Statement

The mission of the School of Naval Architecture and Marine Engineering is to supply well-educated graduates for perpetuation and advancement of the maritime industry, to maintain and advance the practice of naval architecture and marine engineering through education and research processes, to elevate the UNO School of NAME and the University of New Orleans in prominence as a valued contributor to the marine field, and to continually strengthen direct ties with the local and national marine industry constituency.

Program Objectives

The two principal constituencies of the School of NAME to which the above mission is directed are the students, past, present, and future, and the maritime industry. The industry constituency is primarily that in the State of Louisiana, but also in the general Gulf Coast region, as well as nationally. The industry constituency is considered to include an alumni sub-constituency, as essentially the entire active alumni group is composed of industry professionals.

Program Educational (PE) Objectives that have evolved over the past twenty years have been recently refined and formalized to serve the constituencies identified. The current PE Objectives are stated as follows:

1. Produce graduates who will be successful Naval Architects and Marine Engineers, focused primarily on the Maritime (Commercial and Military) and Offshore Industry of the Gulf Coast Region, but capable of serving the rest of the nation and the world.
2. Support the urban mission of the university with special emphasis on serving part-time (working) as well as full time students in both instruction and research.
3. Provide educational, research and service resources for the regional, national and international maritime industries.
4. Maintain our national reputation of excellence and strive for international excellence compatible with ABET (Accreditation Board for Engineering and Technology) and SACS (Southern Association of Colleges And Schools) criteria.

CURRICULUM IN NAVAL ARCHITECTURE AND MARINE ENGINEERING

School of Naval Architecture and Marine Engineering Course Requirements	Cr. Hrs.
Naval Architecture and Marine Engineering 1151, 2151, 2160	10
Naval Architecture and Marine Engineering 3120, 3130, 3150, 3160, 3171	20
Naval Architecture and Marine Engineering 4170, 4175	6
Naval Architecture and Marine Engineering electives[1]	12
Total	48

College of Engineering Course Requirements	Cr. Hrs.
Engineering 3090	1
Mechanical Engineering 2750	3
Mechanical Engineering 3020[2], 3716, 3720, 3770	10
Civil Engineering 2311, 2350, 2351	7

Electrical Engineering 2500, 3501, 3518	7
Total	28

Non-College of Engineering Degree Requirements	**Cr. Hrs.**
English 1157, 1158, 2152	9
Arts Elective[1]	3
Mathematics 2107, 2108, 2109[3], 2115, 2221, 2314	19
Physics 1061, 1062, 1063, 1065	8
Chemistry 1014	4
Computer Science 1201 or 1203 or 1205[4]	3
Philosophy 2244	1
Economics 2000[5]	3
Social Science Elective[1]	3
Biology Elective[1]	3
Literature Electives[1]	6
Total	62
Grand Total	138

[1] To graduate with a degree in engineering, the student must satisfy the General Degree Requirements of the University.

[2] Instead of ENME 3020 students may take MATH 3221.

[3] Students who are strong in mathematics may take the two-semester math sequence, MATH 2111 (5cr.) and MATH 2112 (5cr.) in place of the three-semester sequence, MATH 2107 (3cr.), MATH 2108 (3cr.), and MATH 2109 (4cr.)

[4] Students may take the combination of CSCI 1581 and 1583 (4cr.) in place of CSCI 1201 or CSCI 1203 or CSCI 1205.

[5] Economics 2000 satisfies three hours of the UNO requirement of six hours at or above the 2000 level (referred to in footnote 1).

College of Liberal Arts

Susan E. Krantz, Dean

By providing a wide range of courses and curricula, the College of Liberal Arts enables students to develop a broad intellectual and cultural perspective. Such a perspective both enriches their lives and prepares them for leadership in whatever profession or vocation they choose. Even more important, it gives them an accurate view of themselves as individuals in the context of their civilization. The college of Liberal Arts includes11 departments the School of Urban Planning and Regional Studies, and five interdisciplinary programs.

Major Programs

The College of Liberal Arts offers major programs leading to the Bachelor of Arts degree in:

Anthropology
Film, Theatre and Communication Arts
Economics*
English
Fine Arts
French
Geography
History
International Studies
Music
Philosophy
Political Science
Spanish
Sociology
Women's Studies

* The College of Liberal Arts offers the bachelor of science degree in Urban Studies and Planning.

Minor and Certificate Programs

Minor programs are available in many of the above areas. A minor in Paralegal Studies and interdisciplinary minors in Africana Studies, Asian Studies, European Studies, Latin American and Caribbean Studies, Environmental Studies, and Women's Studies are also available. Certificate programs are available in American Humanics, Paralegal Studies (See Social Sciences and Historic preservation). In addition, the college offers courses in Aerospace Studies, Chinese, German, Greek, Italian, Japanese, Journalism, Latin, and Paralegal Studies.

Requirements for Bachelor of Arts Degree

The following course requirements must be completed by all students working toward a Bachelor of Arts degree in the College of Liberal Arts. Some curricula may demand more than the minimums here designated or may call for specific courses where the general requirements allow a choice. Each student should check his or her major curriculum on the following pages to determine the additional requirements and restrictions which apply in that particular major.

General Course Requirements

1. **Math** Six hours. Any combination of 1031, 1032, 1115, 1116, 1125, 1126, 1140, or higher can be used to meet this requirement except where otherwise specified in the curriculum. Limitations: No credits allowed toward graduation for Mathematics 1021, 1023 or for more than nine hours of math below the 2000 level.
2. **Science** Eleven hours. Eight hours of one science with lectures and labs and three hours of a different science. Limitations: One of the sciences must be biology and the other must be earth and environmental sciences, chemistry, or physics. NOTE: Credit toward graduation is not allowed for both Biology 1083 and 1053, 1081 and 1051, 1073 and 1063, or 1071 and 1061.
3. **English Composition** Three to nine hours. Completion of 1158 or 1159. Unless a student is placed (by placement test and/or transfer credit) into English 1158, English 1156 and/or 1157 as well as English 1158 are required. NOTE: Transfer students who have credit for English 1158 with a grade of C or better must take and pass the transfer proficiency exam within their first two UNO terms of enrollments (excluding summer term) or they will be required to retake English 1158 at UNO in their next enrollment.
4. **Literature** Six hours of literature from any department. Limitations: Writing and linguistics courses do not fulfill this requirement. NOTE: Some Liberal Arts majors require

specific literature courses. See your individual curriculum.

5. **Humanities and Arts** Twelve hours to include two different subject areas and at least two courses at or above the 2000 level. Nine of these hours are to be taken from Film, Theatre and Communication Arts, English1, fine arts, foreign languages[1] (above the level of 1001), music, and philosophy. The three remaining hours in the arts are to be taken from fine arts, music, or theater-related drama and communications courses.
6. **Foreign Languages** Three to 12 hours. Completion of course 2001 in one foreign language or completion of course 1002 in two foreign languages offered through the Department of Foreign Languages. Unless a student is placed (by placement test and/or transfer credit) above the first course, either three semesters of one language in course sequence or two semesters each of two different languages are required. NOTES: 1) Students whose native language is Spanish should confer with the foreign language department about Spanish 2003 and 2004, which are especially designed to meet their needs and which also meet this requirement. Languages other than Spanish or French, offered through the Department of Foreign Languages, that extend through the 2001 or 2011 level may be used to meet this requirement. 2) Some 2001 and 2002 level courses in languages, other than Spanish and French may not be available each semester.
7. **Social Sciences** Twelve hours to include two different subject areas with six hours at or above the 2000 level from the following subjects: anthropology, economics, geography, history, political science, psychology, sociology, urban studies and Women's studies. NOTE: In some curricula, most or all of this requirement is met within other requirements. See curriculum outline. See "Areas of Concentration" in the "Undergraduate Regulations" section.
8. **Computer Literacy** Each student should develop a reasonable competence in those computing techniques most relevant to his/her major program. There should be experience with several different software systems and their applications. Each student should also develop a basic understanding of the nature and function of computers as symbol manipulators and of the general techniques of problem analysis needed for programming solutions to problems. This requirement may be fulfilled by one of the following:
   a. Successful completion of Computer Science 1000 or another computer science course of three credits or more.
   b. Advanced standing credit for Computer Science 1000, earned by successful completion of an examination administered by the Department of Computer Science.
   c. Successful completion of a course or series of courses within the student's major department which has been approved by the University Courses and Curricula Committee as fulfilling the computer literacy requirement.
9. **Oral Competency** Each student should demonstrate competence in the techniques of oral communication relevant to his/her major program. Students should be able to discuss with clarity ideas and factual material in formal small group class settings and in conferences with their professors. This requirement may be fulfilled by one of the following:
   a. Successful completion of an approved course in the student's major department or college that requires a demonstration of oral competence as a condition of receiving a passing grade in the course.
   b. Demonstration of oral competence in an approved course in the student's major department or college that does not require oral competence as a condition of receiving a passing grade. If a student demonstrates oral competency in such a course, an entry shall be made on his/her transcript that oral competency has been demonstrated regardless of the final grade in the course. If a student fails to demonstrate oral competency in the approved course(s) offered by a student's major department or college, the student may take a course outside his/her major department as a means of meeting the general degree requirement for oral competency, upon approval of the student's major department.
10. **Electives** Number of hours varies by major. See curriculum outline in General Catalog. Limitations: Courses must be from the approved list of Liberal Arts electives; however, nine hours of credit in subjects not on the approved list are allowed. (Within those nine hours a maximum of three hours of human performance and/or health-safety are permitted.)

NOTES:

1. At least six hours must be in courses numbered 3000 or above in a subject or subjects other than the major and from the approved list of electives.
2. Liberal Arts students are encouraged to plan their choice of electives with the assistance of a departmental faculty advisor in the context of their overall educational goals.

[1] Any literature course in English or foreign languages used to fulfill the UNO General Degree Requirement of six hours of literature shall not count toward the Humanities requirement.

Approved Electives

Most of the curricula provide considerable flexibility for devising a program adapted to the particular interests and educational goals of the individual student. To assure the construction of a cohesive program, all students are expected to consult with a major advisor regarding electives as well as the courses specified for the major. The flexibility of the elective system is not intended to permit formlessness or aimless sampling. Many combinations are possible, but logical planning should be the basis of all programs.

Within the limitations noted above electives will be accepted on the following basis:

Students in the College of Liberal Arts may elect, for degree credit, any course for which they have the prerequisites from the following subjects:

Accounting
Anthropology

Arts and Sciences
Bacteriology
Biology
Botany
Business Administration
Chemistry
Computer Science
Economics
Education*
Earth and Environmental Sciences
English
Environmental Science and Policy
Film, Theatre and Communication Arts
Finance
Fine Arts
Foreign Languages
Geography
History
Hotel, Restaurant and Tourism Administration
Humanities
Journalism
Management
Marketing
Mathematics
Music
Philosophy
Physics
Political Science
Psychology
Social Sciences
Sociology
Urban Studies
Women's Studies
Zoology

* Only courses in Curriculum and Instruction, Educational Foundations and Research, Library Science, and Special Education.

Other Subjects

Courses in subjects not listed above normally will be accepted to the extent of nine credit hours total. This limit may be waived, if the student presents to the dean a logical plan clearly showing the relevance of such courses to the major program and to the educational goals of the student. Such permission must be secured before the nine-hour limit is exceeded. A maximum of three hours of any Health-Safety and/or Human Performance course, regardless of level, may be included in the nine credit hours total.

Pass/Fail

Students in the College of Liberal Arts who have achieved junior standing and who have an average of 2.75 or better on all of their university work and on all work taken at UNO may, if they choose, take one course each semester on a pass/fail basis. Credits thus earned will be counted toward the total number of hours required for the degree, but they will be disregarded in determining the student's quality point average. A maximum of 12 credits toward graduation may be earned in this way, and all courses so taken must fall into the elective category.

Students may not take courses on the pass/fail basis (a) in their major subject, (b) in their minor field, (c) to satisfy departmental degree requirements, or (d) to fulfill those college degree requirements that are listed as Course Requirements. A student who wishes to schedule a course on the pass/fail basis must file an application in the office of the Dean of the College of Liberal Arts within the first week of classes in the semester in which the course is to be taken. If the student meets the requirements outlined above, an approved copy of the application form will be forwarded to the instructor of the course with a request that the grade of P or F be submitted at the completion of the course. (Work that would ordinarily be of A, B, C, or D quality will be given the grade of P.)

For students who wish to obtain a foundation in business, the following courses are recommended: Accounting 2100 and 2130; Business Administration 3010; Quantitative Methods—Business and Economics 2785; Finance 3300; Management 3401; and Marketing 3501. Students who plan to take a substantial number of business courses should seek the advice of the appropriate persons in the College of Business Administration.

Requirements for Bachelor of Science Degree

The requirements for the Bachelor of Science in Urban Studies and Planning can be found in the College of Liberal Arts' curriculum section of the catalog.

Transfer Credit

Transfer credits acceptable for admission purposes will be valid for degree credit in the College only to the extent to which they represent courses acceptable in the curricula of the College. The College may decline to accept transfer credits in any course in which a grade lower than a C has been received. Validation may be required for credits earned more than 10 years before admission to the College.

Transfer students should note that the last 25% of coursework must be taken in residence while enrolled in the college from which the degree is to be earned. In the College of Liberal Arts, transfer students must take at least 12 hours in the major subject (with a minimum of nine hours in courses numbered 3000 or above). Candidates for a degree must earn a C average in all courses in their major subject taken while they are registered in the College.

Program Planning

All students should plan their programs in advance in order to receive maximum benefit from their college years. Besides examining their own goals, students should consult with advisors to take advantage of alternatives in general degree requirements and electives.

Students are responsible for knowing degree requirements and for enrolling in courses that fit into their degree programs.

They are strongly encouraged to complete the requirements in English, foreign language, mathematics, and science at the earliest possible time in their college career.

Each student is also responsible for notifying the college office of graduation plans at the beginning of the semester preceding the student's final semester. At that point, a graduation checkout sheet is prepared which outlines the student's current scholastic position and indicates the course requirements remaining for the degree.

Requirements for a Minor

A Liberal Arts minor requires a minimum of 18 hours and a 2.0 average in the minor field. See minor in individual curricula for specific courses required.

At least nine hours of coursework must be taken at UNO, and for a minor requiring six or more hours at the 3000-level or above, at least six of those hours must be taken at UNO. Minors requiring fewer than six hours of 3000- or 4000-level courses require all these hours be taken at UNO. No pass/fail courses will apply toward a minor.

Minor in Africana Studies

The College of Liberal Arts administers the interdisciplinary Minor in Africana Studies. The purpose of this minor is to acquaint the student with the current and historical knowledge of the black experience in Africa, the Americas, and other parts of the world drawing from courses in the College of Liberal Arts as well as approved courses offered by the other colleges. The minor signifies that the student has a basic, general understanding of the significant contributions made by African people in Africa and in the African diaspora.

The requirements of the major are as follows:

1. Completion of the requirements of a degree in one of the colleges at UNO.
2. Completion of History 1010, either English 2071 or 2072, and either History 3551 or 3552.
3. Completion of nine credit hours to be taken from a list of approved courses. To complete 18 credit hours, in addition to the major, the student must choose courses from a minimum of three disciplines. At least six credit hours must consist of courses at the 3000 level or above.
4. The Coordinator may permit substitution of as many as six of these 18 hours in UNO Special Topic or Independent Study courses. Appropriate courses offered at UNO or other universities may be suggested as substitutes. The Coordinator may assign each student to a faculty adviser who will help the student design the minor program. Courses on Africana Studies in the major field that are counted as credit hours for that major may not also be counted toward this minor.

Interested students should contact the Coordinator of Area Studies minors through the College of Liberal Arts office.

Minor in Asian Studies

The College of Liberal Arts administers the interdisciplinary Minor in Asian Studies. The purpose of this minor is to acquaint students with current and historical knowledge of the Asian region, peoples, and cultures. The minor signifies that students have a basic and general understanding of this part of the world. The requirements of this minor are as follows:

1. Completion of the requirements of a degree in one of the colleges at UNO.
2. Completion of four semesters (a minimum of 12 credit hours) of Chinese, Japanese, or other relevant language through 2002 or its equivalent.
3. Completion of History 2201 and 2202 (the survey of Asian civilizations).
4. Credit in courses on Asia to be approved by the coordinator, for a total of 12 credit hours in addition to the language and history requirement. At least six credit hours must be at the 3000 level or above. In addition, six of the 12 credit hours must be chosen from at least two disciplines outside of history and language, with no more that nine credit hours from any one discipline. Courses on Asia in the major field that are counted as credit hours for that major may not also be counted toward this minor.
5. A minimum 2.0 grade-point average must be attained in all courses in the minor program.

Interested students should contact the Coordinator of Area Studies minors through the College of Liberal Arts office.

Minor in Environmental Studies

The Minor in Environmental Studies draws its required and optional courses from seven disciplines in the College of Liberal Arts. This interdisciplinary approach introduces students to the complexity of human-environmental relationships and problems. The Department of Sociology administers the minor.

The requirements of the minor are as follows:

1. Completion of the requirements of a degree in one of the colleges at UNO.
2. Completion of two core courses: Geography 1600 and Sociology 2871.
3. Completion of 15 credit hours from an approved list* (in addition to the core courses) including courses from at least three Liberal Arts disciplines but no more than six credit hours from any one discipline.
4. Students must maintain at least a 2.0 grade-point average in all courses used to fulfill this minor.

* Approved courses for the minor: Anthropology 2051, 2052, 4721, 4761; Fine Arts 4263; Geography 1600, 2158, 4158, 4320, 4220, 4550; History 2080, 4543, 4582; Philosophy 3430, 4205; Political Science 4170; Sociology 2871, 4871, 4881, 4903 .

Students wishing to take a course not on the approved list must get permission from the College. To meet the prerequisite requirements for some of the approved courses, students may need to complete more than the minimum 21 hours required for this minor.

Minor in European Studies

The College of Liberal Arts administers the interdisciplinary minor in European Studies. The purpose of this minor is to acquaint the student with historical and current knowledge of the European region, peoples, societies, economies, and cultures. The minor signifies that students have a basic and general understanding of this part of the world. The requirements of

this minor are:

1. Completion of the requirements of a degree in one of the colleges at UNO.
2. Completion of courses in French, Italian, Spanish, German, Russian, or other relevant languages through 2002 or its equivalent.
3. Completion of six credit hours in one of two core curricula:
   a. Core I: Social Sciences (Anthropology 2052; Geography 2422, History 1001, 1002, 1019, 1029; Political Science 2600).
   b. Core II: Arts and Letters (English 2371, 2372; Fine Arts 2201, 2202; Music 2201, 2202; Philosophy 2311, 2312).
4. Credit courses in European Studies to be approved by the coordinator, for a total of 12 credit hours with a minimum 2.0 grade-point average, to include at least six credit hours at the 3000 level or above. These 12 credit hours must be chosen from a minimum of three disciplines and must cover different time periods. Courses on Europe in the major field that are counted as credits for that major may not also be counted toward this minor.
5. A minimum 2.0 grade-point average must be attained in all courses in the minor program.

Interested students can contact the Coordinator of Area Studies minors through the College of Liberal Arts office.

Minor in Latin American and Caribbean Studies

The College of Liberal Arts administers the interdisciplinary Minor in Latin American and Caribbean Studies. The purpose of this minor is to acquaint the student with current and historical knowledge of the region known as Latin America and the Caribbean. The minor signifies that the student has a basic and general understanding of the peoples and cultures of this part of the New World. The requirements of the minor are as follows:

1. Completion of the requirements of a degree in one of the colleges at UNO.
2. Completion of 12 semester hours of Spanish language course work.
3. Credit in courses on Latin America and the Caribbean, to be approved by the Director of the Latin American and Caribbean Studies Program, for a total of 18 credit hours with a minimum 2.0 grade point average to include at least six credit hours at the 3000 level or above. These 18 credit hours must be chosen from a minimum of three disciplines, with no more than six credit hours from any one discipline. Courses on Latin America and the Caribbean in the major field that are counted as credit hours for that major may not also be counted toward this minor.

Interested students can contact the Director of the Latin American and Caribbean Studies Program through the College of Liberal Arts office.

Minor in Paralegal Studies

The College of Liberal Arts and Metropolitan College jointly administer the Paralegal Studies Program, which provides the curriculum for a Minor in Paralegal Studies. The purpose of the minor is to acquaint the student with legal issues and practices in American society. Completion of the paralegal minor requirements does not constitute preparing a graduate to work as a paralegal nor is a certificate in Paralegal Studies awarded. The requirements of the minor are as follows:

1. Completion of the requirements of a degree in one of the colleges at UNO.
2. Completion of the Paralegal Aptitude Test.
3. Completion of 18 hours in paralegal courses, including Social Sciences 1901, 2005, 2011, 2013, and two electives, one of which must be at the 3000 level.

Students who complete the requirements of the Minor in Paralegal Studies and who wish to receive the Certificate in Paralegal Studies must complete nine additional hours of paralegal courses, including Social Sciences 2052, 2907 and 3001. Only those paralegal courses in which the student earns a grade of C or better will count toward earning the Certificate. The Paralegal Studies Program is approved by the American Bar Association. The Paralegal Studies Program is approved by the American Bar Association and is a member of the American Association for Paralegal Education.

Interested students should contact the Director of Paralegal Studies in the Downtown Center or the Paralegal Studies Coordinator in the Department of History for further information.

Minor in Women's Studies

The College of Liberal Arts administers the interdisciplinary Minor in Women's Studies. The purpose of this minor is to acquaint the student with current and historical knowledge of the field of Women's Studies. The minor signifies that the student has a basic and general understanding of existing scholarship on women. The requirements of the minor are as follows:

1. Completion of the requirements of a degree in one of the colleges at UNO.
2. Completion of Women's Studies 2010, Introduction to Women's Studies.
3. Credit in courses on Women's Studies, to be approved by the Director of Women's Studies, for a total of 18 credit hours with a 2.0 grade point average to include at least six credit hours at the 3000 level or above.
4. To complete the 18 credit hours, the student must choose from a minimum of three disciplines, with no more than six credit hours from any one discipline.

Interested students can contact the Director of Women's Studies Program through the College of Liberal Arts office.

American Humanics Certification Program

The UNO American Humanics Program (AH) is a certification program in non-profit leadership designed to prepare students for entry-level management positions. The program is a cooperative effort between American Humanics, Incorporated of Kansas City, Missouri; LSU-Shreveport; and UNO. AH is the only national organization devoted to the preparation of students for careers in youth and human service organizations. It is designed to meet the demand for qualified, mission-driven professional staff for employment in the expanding youth and

human services non-profit sector. Interested students should contact the Department of Sociology for further information.

Paralegal Studies Program

The College of Liberal Arts and Metropolitan College jointly administer the Paralegal Studies Program. The program is approved by the American Bar Association and a member of the American Association for Paralegal Education.* Students may be admitted to the program upon successful completion of the Paralegal Aptitude Test.

Eligibility for ENGL 1157 is a pre-requisite for all paralegal couses. Students can fulfill the requirements of the program in several ways:

BACCALAUREATE DEGREE CANDIDATES:

Students seeking a bachelor's degree (there is no bachelor's degree in Paralegal Studies) may fulfill the requirements of the Paralegal Studies Program by completing 27 hours in paralegal courses: 21 hours in the core curriculum (Social Sciences 1901, 2005, 2011, 2013, 2052, 2907, and 3001) and six additional hours of paralegal courses (three hours at the 3000 level). Only those paralegal courses in which the student has earned a C or better final grade will be counted toward fulfilling the requirements of the Program. Degree-seeking students will follow normal requirements for a major in their respective colleges. The number of paralegal courses accepted for credit toward a degree in any major program will be governed by rules of the student's college and department.

POST-BACCALAUREATE PROGRAM:

Students who possess a baccalaureate degree and are admitted to the paralegal program may complete the program by following the 27 credit hour paralegal course sequence described above. 60 CREDIT HOUR PROGRAM: Students may enroll in a non-degree credit program leading to the Certificate in Paralegal Studies. They must complete 27 hours in paralegal course requirements described above, earning a C or better final grade in each course, and 33 hours in non-paralegal courses numbered 1000 and above, for a total of 60 hours. A minimum 2.0 grade point average is required. Completion of English 1158 is required. Students who wish to enroll in the 60 credit hour program MUST consult with the Director of the Paralegal Studies Program or the academic coordinator of the Paralegal Studies Program in the History Department (Lakefront Campus) in order to plan their curriculum in accordance with the guidelines established by the American Bar Association. Students interested in any of these program options should contact the Director of Paralegal Studies in the Downtown Center or the Academic Coordinator in the Department of History for further information. The Paralegal Studies Program at the University of New Orleans is a member in good standing of the American Association for Paralegal Education.

* Paralegals are not attorneys, secretaries, or law clerks. Paralegals are professionals skilled in the delivery of legal services. Paralegals work under the direct supervision of attorneys and are subject to the same ethical and professional standards as attorneys.

Certificate Program in Historic Preservation

New Orleans is an excellent laboratory for the study of historic structures, districts and landscapes. The city is one of the most historic in the country and contains the largest number of National Register Historic Districts and protected historic buildings within them. New Orleans is comprised of well defined neighborhoods, each exhibiting distinctive architectural and cultural characteristics. One of the most notable is the Vieux Carre (or more commonly known as the French Quarter) in the heart of the City which is internationally known and protected as a National Register Landmark District.

SUPRS focus in the area of historic preservation targets public policy and is closely linked to the Master of Urban and Regional Planning program. The study of preservation planning encompasses topics in a number of areas including housing and community development, local economic development, tourism planning and environmental planning. Students engaged in the preservation planning concentration can conduct research and participate in class projects and internships involving neighborhood revitalization, Main Street programs for neighborhood commercial districts and smaller community commercial centers, as well as tourism planning initiatives using economic development from tourism to spark preservation and re-use of historic structures. There are many opportunities for students interested in historic preservation to work in New Orleans historic neighborhoods with community-based groups on a variety of issues linked to protection of the built environment.

Studies in Public Culture at UNO

Public culture refers to the sources and symbols, resources and representations of human cultural affiliation and expression. The departments within the School of Urban Planning and Regional Studies offer a series of courses and projects in public culture. This program is also reflected in long-term collaborations with the departments of history, arts administration, hotel management, film, and journalism, and facilities such as Eisenhower Center for American Studies and Ogden Museum of Southern Art. SUPRS faculty and staff manage public programs in regional folk life, archaeology, and historic preservation. SUPRS also collaborates in the production of the weekly syndicated Public Radio International program, American Routes.

SUPRS historic engagement of issues in public policy and city/regional planning is complemented by its involvement in the culturally distinct New Orleans cityscape and greater south Louisiana region.

Applied Research at SUPRS

The words "Research and Engagement" are an important part of the SUPRS mission statement. SUPRS's students, faculty, and staff are engaged throughout the community, state and nation in applied research and public service, making real quality-of-life contributions. Programs include:

The **Louisiana Urban Technical Assistance Center** (LUTAC) which has provided low-cost technical assistance in public administration to local governments since 1981.

The **International Project for Nonprofit Leadership** (IPNL), a joint endeavor of SUPRS and UNO's Metropolitan College, works to strengthen local non-profits. Work to increase commerce on the Lower Mississippi is conducted in concert with the transportation industry through the Mississippi River Corridor Initiative, a discrete program of SUPRS's Merritt C. Becker, Jr. Maritime and Intermodal Transportation Center. The federally-designated National Ports and Waterways Institute is the leading university-based maritime planning and evaluation organization in the U.S.

SUPRS sponsors the **International Program for Port Planning and Management** in New Orleans each year, bringing together port managers from over 100 countries.

American Routes host and SUPRS faculty member Nick Spitzer explores our musical culture every week on his syndicated Public Radio International show in over 200 markets.

The **Louisiana Regional Folk life Program** (LRFP) represents CUPA's commitment to conserving traditional cultures in New Orleans and the surrounding region.

Critical Languages Program Self-Instructional Courses in Modern Languages

The Critical Languages Program provides the opportunity for strongly motivated persons to undertake self-instructional courses of study in some languages not available among our regular offerings or not available at the advanced level requested. The globalization of human society imposes significantly increased demands for language competent individuals able to use effectively many more languages than the traditional French, German, and Spanish. This program, based upon a 30-year national project at work in more than 150 universities and colleges across the country, is aimed at applying a highly effective method to enhance the opportunities associated with foreign language training.

Such courses are set up on an individual basis, by prior arrangement with the coordinator of the Critical Languages Program (CLP), and require the prior approval of the Department of Foreign Languages. Those contemplating such courses must therefore begin their planning as early as possible. Enrollment in all cases is subject to the University's ability to locate native speakers and professional, qualified persons capable of both monitoring and evaluating the students' work. Three credits are available for these courses per semester, although all may also be taken on a noncredit basis. Credits earned may be counted as part of the 120 needed for graduation, but may not be used to fulfill any departmental or college language requirement without written approval of the appropriate administrative officers. Those interested in the program should contact the Coordinator of the Critical Languages Program through the College of Liberal Arts office.

CURRICULUM IN ANTHROPOLOGY

Department of Anthropology

Course Requirements	Cr. Hrs.
Anthropology 2051, 2052, plus one of 3101, 3201 or 3301	9
Anthropology 4721, 4761, 4772, or 4775	3
Anthropology 4801	3
Anthropology 4995[2]	1
Anthropology[2]	21
Total	37

College of Liberal Arts

Course Requirements	Cr. Hrs.
English 1157, 1158	6
English Literature*	6
Foreign Language[3]	9
Geography 1001, 1002 or History 1001, 1002[4]	6
Humanities (2000 level or above)	3
Arts*	3
Total	33

Non-College of Liberal Arts

Course Requirements	Cr. Hrs.
Mathematics*	6
Sciences*	11
Computer Science 1000 or Sociology 2707[5]	3-4
Total	20-21

Electives

Course Requirements	Cr. Hrs.
Non-Anthropology at 3000 level or above*	6
Approved electives	24
Total	30
Grand Total	120-121

* See General Course Requirements and Approved Electives in the Liberal Arts Section.

[1] Fulfills oral competency requirement.

[2] At least six hours from area studies courses in anthropology, and at least nine additional hours from topics/theory courses in anthropology at the 4000-level or higher (excluding 4990). Students planning to continue in cultural anthropology, archaeology, physical anthropology, or linguistics should choose the needed additional six hours from courses appropriate to their specialization. No more than three credit hours at the 1000 level may count toward the major.

[3] The nine hours in foreign language must be in the same language. Alternatively, students may opt to take 12 hours in two foreign languages (six hours in each of two languages). If the 12-hour option is chosen, reduce approved electives by three hours; the remaining 27 hours of approved electives must then include three hours of 2000+ humanities.

[4] Other courses may be substituted with approval of department.

[5] Fulfills computer science requirement. Three additional hours of statistics or computer sciences are strongly recommended for all majors.

Minor in Anthropology

Students who wish to secure a significant background in anthropology while majoring in another area may do so by earning 18 credit hours in anthropology courses, including both Anthropology 2051 and 2052 and at least nine hours at or above the 3000 level (exclusive of Anthropology 3896 and 4991).

Successful completion of these requirements with an average of at least 2.0 in the minor will result in a minor in anthropology.

Honors in Anthropology

An honors program is available for qualified students who may be admitted by departmental action in the junior year. To secure admission a student must have an overall average of 3.25 and a 3.5 average in anthropology. The program requires successful completion of at least three hours of Arts and Sciences courses, completion of a 4000-level anthropology course on the honors level, the completion of an honors thesis, which involves earning six hours in Anthropology 3896, and the maintenance of an average of 3.6 in anthropology and 3.25 overall. The honors thesis is to be defended orally before a committee composed of the thesis director, another member of the anthropology faculty appointed by the department chair, and a representative of the honors program. Students planning to continue in graduate school are strongly advised to take the honors degree in anthropology.

CURRICULUM IN FILM, THEATRE AND COMMUNICATION ARTS

Students majoring in Film, Theatre and Communication Arts may elect one of two options: General Drama or Communications.

GENERAL DRAMA OPTION

Department of Film, Theatre and Communication Arts

Course Requirements	Cr. Hrs.
Film, Theatre and Communication Arts 1005, 1100, 1300[1], 1800	10
Film, Theatre and Communication Arts 2100, 2320 or 2380, 2800	8
Film, Theatre and Communication Arts 3800, 4400, 4260 or 4450 or 4455	8
Film, Theatre and Communication Arts electives	18
Total	44

College of Liberal Arts

Course Requirements	Cr. Hrs.
English 1157, 1158	6
Literature*	6
Foreign Language**	9-12
Social Science electives*	12
Total	33-36

Non-College of Liberal Arts

Course Requirements	Cr. Hrs.
Mathematics*	6
Science*	11
Computer Science 1000	3
Total	20

Electives

Course Requirements	Cr. Hrs.
Non-Film, Theatre and Communication Arts (3000 level or above)	6
Approved electives*	17-14
Total	23-20
Grand Total	120

* See General Course Requirements and Approved Electives in Liberal Arts Section.

** The nine hours of foreign language must be in the same language. Students may, however, opt to take twelve hours in two foreign languages (six hours each of two languages.) With the twelve-hour option, there are three fewer hours of approved electives.

[1] Courses satisfies General Degree Requirement of oral competency. Students should expect that the Department of Film, Theatre and Communication Arts may retain some or all work written or created as a classroom assignment.

Students electing the general drama option must satisfy the following requirements:

1. A minimum of 45 hours in Film, Theatre and Communication Arts, including Film, Theatre and Communication Arts 1005, 1006, 1100, 1300, 2100, 2380, 3098, 4400, 4410, 4450 (or 4455).
2. Twenty hours of electives in Film, Theatre and Communication Arts, not including the required courses listed above. A student may choose an emphasis in acting, directing, design, costuming, or some aspect of technical theatre.
3. At least six hours at the 3000 level or above in one subject outside the area of Film, Theatre and Communication Arts.

COMMUNICATIONS OPTIONS

Department of Film, Theatre and Communication Arts

Course Requirements	Cr. Hrs.
Film, Theatre and Communication Arts 1110, 1600	6
Film, Theatre and Communication Arts 2510 or 2550	3
Film, Theatre and Communication Arts 4540, 4670[1], 4675	9
Film, Theatre and Communication Arts electives	26
Total	44

College of Liberal Arts

Course Requirements	Cr. Hrs.
English 1157, 1158	6
Literature*	6
Foreign Language**	9-12
Social Science electives*	12
Total	33-36

Non-College of Liberal Arts

Course Requirements	Cr. Hrs.
Mathematics*	6
Science*	11
Computer Science 1000	3
Total	20

Electives

Course Requirements	Cr. Hrs.
Non-Film, Theatre and Communication Arts (3000 level or above)	6
Approved electives*	17-14

Total	23-20
Grand Total	120

* See General Course Requirements and Approved Electives in Liberal Arts Section.

** The nine hours of foreign language must be in the same language. Students may, however, opt to take twelve hours in two foreign languages (six hours each of two languages). With the twelve-hour option, there are three fewer hours of approved electives.

[1] Course satisfies General Degree Requirement of oral competency. Students should expect that the Department of Film, Theatre and Communication Arts may retain some or all work written or created as a classroom assignment.

Minors in Drama or Communications

The department offers two areas of concentration, each of which requires the completion of a minimum of 18 credit hours with a 2.0 grade-point average. Nine hours must be taken in residence at the University of New Orleans. Students must follow prerequisite requirements and should consult with an adviser before choosing electives.

Minor in Drama

Completion of Film, Theatre and Communication Arts 1005, 1100, 1300, and 4400 plus six hours selected from Film, Theatre and Communication Arts courses numbered 2000 or above.

Minor in Communications

Completion of Film, Theatre and Communication Arts 1600, 2510 or 2550, 2770, and 4675 plus six hours selected from Film, Theatre and Communication Arts courses numbered 2000 or above.

CURRICULUM IN ENGLISH

Department of English

Course Requirements	Cr. Hrs.
English 1157, 1158 (or 1159)	6
English 2031, 2032, 2258[1], 2341, 2342, 4521 or 4522	18
English electives	21
Total	45

College of Liberal Arts

Course Requirements	Cr. Hrs.
History	6
Foreign Language[2]	9
Arts*	3
Social Sciences (at least 3 hours outside History)*	6
Total	24

Non-College of Liberal Arts

Course Requirements	Cr. Hrs.
Sciences*	11
Mathematics*	6
Total	17

Electives

Course Requirements	Cr. Hrs.
Non-English at 3000 level or above*	6
Approved electives*	28
Total	34
Grand Total	120

* See General Course Requirements and Approved Electives in Liberal Arts Section.

[1] Satisfies General Degree Requirements of oral competency and, in conjunction with English 2031, 2032, 2341, and 2342, computer literacy.

[2] The nine hours of foreign language must be in the same language. Students may, however, opt to take 12 hours in two foreign languages (six hours each of two languages). With the 12-hour option, there are three fewer hours of approved electives.

Core English requirements for English majors: See above

English Electives:

1. One 4000-level American literature course (English 4030, 4031, 4032, 4033, 4034, 4045, 4091, 4092, or approved 4391).
2. One 4000-level British literature course before 1660 (English 4401, 4421, 4501, 4516, 4601, 4616, 4621, or approved 4391).
3. One 4000-level British literature course after 1660 (English 4701, 4702, 4715, 4716, 4801, 4802, 4807, 4808, 4815, or approved 4391).
4. One 3000/4000-level course in the theory and practice of writing (English 4151, 4152, 4154, 4155, 4158, 4161, 4163, 4231, 4398, or approved 4391 or Journalism 3700 or 4700).
5. One 4000-level cross-cultural literature course (English 4070, 4093, 4230, 4370, 4376, 4378, 4390, 4913*, 4914*, 4915*, 4916*, 4917*, or approved 4391*). (*The department will list approved sections each semester.)
6. Two other 3000/4000-level courses in English or journalism.

Optional Concentrations within the Major Program

The English Department offers courses in four concentrations:

1. creative writing,
2. professional writing,
3. English for pre-law students, and
4. comparative literature.

Students interested in pursuing one of them should see the Coordinator of Undergraduate English for a list of relevant courses.

Honors in English

Available to qualified majors and non-majors, and open (but not limited) to students enrolled in University Honors.

Honors in English for English Majors

To graduate with honors in English, English majors must:

1. Fulfill the usual requirement for English majors.
2. Maintain a minimum cumulative grade point average of 3.5 in English and 3.25 overall.
3. Complete a minimum of nine semester hours in honors

courses, which may include English 2199, 2299, and 2399.
4. Successfully complete a six-hour thesis. With consent of the chair of the Department of English and the director of the University Honors Program, three hours of related course work taken prior to registration in English 3399 (Honors Thesis) may be counted toward the thesis.
5. Perform satisfactorily in an oral examination on a senior thesis.

Honors in English for Non-Majors

To graduate With Honors in English, students not majoring in English must:

1. Maintain a minimum cumulative grade point average of 3.5 in English courses and 3.25 overall.
2. Complete a minimum of 12 semester hours in English courses approved by the department. At least six of the 12 hours must be in courses numbered 3000 or above.
3. Complete a minimum of nine semester hours in honors courses, which may include English 2199, 2299, and 2399.
4. Successfully complete a six-hour thesis. With consent of the chair of the Department of English and the director of the University Honors Program, three hours of related coursework taken prior to registration in English 3399 (Honors Thesis) may be counted toward the thesis.
5. Perform satisfactorily in an oral examination on a senior thesis.

Minor in English

Eighteen hours in English tailored to the needs of the student as approved by the Coordinator of Undergraduate English:

1. Six hours of English department literature courses numbered 2000 or above.
2. Twelve additional hours of English courses numbered 2000 or above, nine of which must be at the 3000- or 4000-level.
3. A minimum grade of C in each course taken for the minor.

Minor in Print Journalism

The College of Liberal Arts administers the Minor in Print Journalism in conjunction with Southern University in New Orleans. To earn this minor, students must complete 18 credit hours. The 12 hours of required courses are: SUNO's Journalism 241 or UNO's Film, Theatre and Communication Arts 1600; SUNO's Journalism 242 or UNO's Journalism 2700; SUNO's Journalism 320; and SUNO's Journalism 420 or UNO's Journalism 3700 or 4700. Six hours of electives must be selected from the following SUNO courses: Journalism 360, Journalism 425, Journalism 430, and Journalism 450.

CURRICULUM IN FINE ARTS

Students majoring in Fine Arts may elect one of two options:

1. Studio Art or Art History
2. Studio Art Option

Department of Fine Arts

Course Requirements	Cr. Hrs.
Fine Arts 1011, 1012, 1014	9
Fine Arts 2201, 2202, 2300	9
Fine Arts 2400, 2600, 2700, 2800, 2900[1]	9
Fine Arts Option[2]	12
Art History (3000 level or above)	6
Total	45

College of Liberal Arts

Course Requirements	Cr. Hrs.
English 1157, 1158*	6
Literature*	6
Foreign Language*	9/12
Social Science electives*	12
Total	33/36

Non-College of Liberal Arts

Course Requirements	Cr. Hrs.
Mathematics*	6
Computer Literacy*[3]	3
Sciences*	11
Total	20

Electives

Course Requirements	Cr. Hrs.
Non-Fine Arts at the 3000 level or above*	6
Approved electives*	16/13
Total	16/19
Grand Total	120

* All Non-College of Liberal Arts requirements, College of Liberal Arts requirements, and Elective requirements are identical to the General Course Requirements and Approved Electives in the Liberal Arts Section of the General Catalog. See Liberal Arts Section of the General Catalog.

[1] Three out of the five courses must be taken, one of which must be the introductory course in the chosen area of specialization (Fine Arts Option).

[2] Four courses; intermediate through senior project in the chosen area of specialization. Intermediate through advanced courses in areas of concentration fulfill the General Degree Requirement for Oral Competency.

[3] Any course in the sequence FA 2900-3903 also fulfills the General Computer Literacy Requirement.

Students electing the Studio Art option must complete satisfactorily the following:

1. A minimum of 45 hours in Fine Arts including 1011, 1012, 1014, 2201, 2202, 2300, three of the following five: 2400 (photography), 2600 (sculpture), 2700 (painting), 2800 (printmaking), and 2900 (digital art); and six additional hours of art history at the 3000 or 4000 level.
2. A 12-hour sequence of 3000-level courses in a studio area of specialization chosen from the following: photography, sculpture, painting, printmaking, or digital art. Courses within a studio area form a continuous sequence from the introductory level through senior project course (Fine Arts 2400 - 3403, 2600 - 3603, 2700 - 3703, 2800 - 3803, 2900 - 3903). No student may enroll in any level of a sequence who has not received a grade of C or better in the course of the previous level.

Students may expect that a limited number of class projects will be kept for display and for a permanent collection.

ART HISTORY OPTION

Department of Fine Arts

Course Requirements	Cr. Hrs.
Fine Arts 1011, 1012	6
Fine Arts 2201, 2202	6
Art History Distribution	27
Fine Arts 3203[1]	3
Total	42

College of Liberal Arts

Course Requirements	Cr. Hrs.
English 1157, 1158*	6
Literature*	6
Foreign Languages[2]	12
Social Science electives*	12
Total	36

Non-College of Liberal Arts

Course Requirements	Cr. Hrs.
Mathematics*	6
Computer Literacy*[3]	3
Sciences*	11
Total	20

Electives

Course Requirements	Cr. Hrs.
Non-Fine Arts at the 3000 level or above*	6
Approved electives*	16
Total	22
Grand Total	120

* All Non-College of Liberal Arts requirements, College of Liberal Arts requirements (except foreign language), and Elective requirements are identical to the General Course Requirements and Approved Electives in the Liberal Arts Section of the General Catalog. See Liberal Arts Section of the General Catalog.

[1] FA 3203 fulfills the General Degree Requirement for Oral Competency.

[2] All twelve hours of the Foreign Language requirement must be in one language.

[3] FA 2900 through 3903 may fulfill the General Degree Requirement for Computer Literacy.

Students electing the Art History Option must complete satisfactorily the following:

1. A minimum of 42 hours in Fine Arts including 1011, 1012, 2201, 2202.
2. 27 hours in art history courses at the 3000 level or above. These courses should be distributed among at least three of the following periods or areas:
   a. Ancient through Medieval,
   b. Renaissance through Baroque,
   c. Eighteenth century through Contemporary,
   d. Non-Western Art, and
   e. Museum or Gallery internship. Independent Study in Art History, Fine Arts 3293 may not be used to satisfy this distribution requirement.
3. Fine Arts 3203. Art History majors may not register for FA 3203 before having completed at least 24 hours at the 3000 level or above. FA 3203 fulfills the General Degree Requirement for Oral Competency.

Minors in Fine Arts

A minor in Fine Arts, Studio Art Option, requires that the student take a total of 18 credit hours in art studio courses including the following:

Freshman and Sophomore Years—Fine Arts 1011, 1012, 1014.

Junior Year—9 hours of studio art, 2000 level and above.

A C or better must be earned in each course. The courses may be taken as elective credits at any point in the undergraduate curriculum provided that the student adheres to prerequisites and course-level restrictions listed in the catalog.

A minor in Fine Arts, History Option, requires that the student take a total of 18 credit hours in art history courses including the following:

Freshman Year—Fine Arts 1010.

Sophomore Year—Fine Arts 2201, 2202.

Junior and Senior Years—9 hours of art history at 3000 level and above.

A C or better must be earned in each course. The courses may be taken as elective credits at any point in the undergraduate curriculum provided that the student adheres to prerequisites and course-level restrictions listed in the catalog.

Although Fine Arts 1010 is not a prerequisite to Fine Arts 2201 and 2202, it is suggested that it be taken first to serve as an introduction to the vocabulary of artistic form.

CURRICULUM IN FRENCH

Department of Foreign Languages

Course Requirements	Cr. Hrs.
French 1001, 1002, 2001, 2002	12
French 3031, 3041, 3042, 3100, 3101, 3205	18
French 3002, 3197, 3500	5
French electives (3000 level or above)	9
Total	44

College of Liberal Arts

Course Requirements	Cr. Hrs.
English 1157, 1158	6
English 2341, 2342	6
History 1001, 1002	6
Social Science elective (outside History)*	3
European History (2000 level or above)	6
Arts*	3
Total	30

Non-College of Liberal Arts

Course Requirements	Cr. Hrs.
Mathematics*	6
Sciences*	11
Computer Science 1000	3
Total	20

Electives

Course Requirements	Cr. Hrs.
Non-French at 3000 level or above	6
Non-Humanities	4
Approved electives	16
Total	26
Grand Total	120

* See General Course Requirements and Approved Electives in Liberal Arts Section.

French requirements for French majors:

1. A minimum of 30 semester hours in French courses, not including 1001, 1002, 2001 and 2002.
2. French 3002, 3031, 3041, 3042, 3100, 3101, and 3205. French 3100 and 3101 must be taken prior to, or concurrently with, more advanced literature courses.
3. At least nine hours of French courses, including six hours at the 4000 level.
4. French 3197. This course will fulfill the University requirement for oral proficiency.
5. French 3500. This course prepares majors for the Written Exit Exam.

General requirements for French majors:

1. English 2341, 2342 (to be taken prior to, or concurrently with, French 3205, 3100, 3101).
2. History 1001, 1002.
3. European History (six hours of courses numbered above 2000; French 4201 or 4202 may be substituted for three of these hours. If French courses are elected, student must take three hours of social science at the 2000 level or above.)

In all cases college subject requirements should be completed before taking electives. Refer to the University and college requirements for particulars. In conference with a foreign language adviser each student will plan a balanced and coherent program designed for the student's particular needs and interests. Through choice of electives the student may wish to combine the major program with another field of study: a second foreign language and literature, linguistics, the civilization of an area, an allied subject within the humanities, an allied field within the social sciences, sciences, or business administration.

Minor in French

A minor requiring 18 credit hours of French with a 2.0 grade point average is offered. Specific courses are: 2002, 3031, 3041, 3042, 3100, or 3101, and three additional hours beyond 3101.

Honors in French

An honors program in French is available to superior students, both French majors and non-majors. Successful completion of this program will carry the designation With Honors in French on the student's diploma.

Honors in French for French majors:

To graduate with honors in French, French majors must:

1. Fulfill the usual requirements for French majors.
2. Maintain a minimum cumulative grade-point average of 3.5 in French courses and an overall 3.25 average.
3. Complete a minimum of six credit hours in interdepartmental (Arts and Sciences) honors courses.
4. Receive credit for French 3199 by writing an honors essay, as well as a summary of it to be written in French, approved by three members of the foreign language faculty.
5. During the course of the program, but prior to the writing of the honors essay, the student must demonstrate oral proficiency in the language by means of an examination administered by the faculty.

Honors in French for students not majoring in French:

1. To graduate with honors in French, students not majoring in French must:
2. Complete a minimum of 12 semester hours in French courses numbered 3100 or above. These courses, which must be approved by the French faculty, must include at least six hours in courses numbered 3200 or above.
3. Maintain a minimum cumulative grade-point average of 3.5 in French courses and an overall 3.25 average.
4. Complete a minimum of six credit hours in interdepartmental (Arts and Sciences) honors courses.
5. Receive credit for French 3199 by writing an honors essay, as well as a summary of it to be written in French, approved by three members of the foreign language faculty.
6. During the course of the program, but prior to the writing of the honors essay, the student must demonstrate oral proficiency in the language by means of an examination administered by the faculty.

CURRICULUM IN GEOGRAPHY

Students majoring in geography may elect to follow one of three tracks: General Geography, Environmental Analysis, or Geographic Information Systems. Each track is designed to give a common background to all majors.

GENERAL GEOGRAPHY TRACK

Department of Geography

Course Requirements	Cr. Hrs.
Geography 1001, 1002	6
Geography 2151, 2254 or 2356, 2701[1], 2801	10
Geography 4805 or 4810[2], 4901	7
Geography electives	15
Total	38

College of Liberal Arts

Course Requirements	Cr. Hrs.
English 1157, 1158	6
English Literature*	6
Foreign Language*[3]	9
Arts*	3
Social Sciences electives*[4]	10
Total	34

Non-College of Liberal Arts

Course Requirements	Cr. Hrs.
Mathematics*	6
Sciences*	11
Total	17

Electives	
Course Requirements	**Cr. Hrs.**
Non-Geography at 3000 level or above	6
Approved electives*	25
Total	31
Grand Total	120

* See General Course Requirements and Approved Electives in Liberal Arts Section.

[1] Fulfills the oral competency requirement for Liberal Arts.

[2] Fulfills the computer literacy requirement for Liberal Arts.

[3] The nine hours in foreign language must be in the same language. Alternatively, students may opt to take 12 hours in two foreign languages (six hours in each of two languages). If the 12-hour foreign language option is chosen, reduce approved electives by three hours and six hours of the electives taken must be humanities at the 2000+ level. If the nine-hour option is chosen, then three hours of 2000+ humanities electives must be taken.

[4] Must include three hours outside of geography.

Students electing the General Geography track must complete a minimum of 38 hours in geography including those courses shown above. Geography electives must be selected from the following:

1. one course selected from geography courses numbered from 2401 to 2441.
2. two courses selected from geography courses numbered 4150, 4158, 4220 to 4320, 4550 and/or 4600 to 4768
3. two courses selected from geography courses numbered 3490, 3822, 4150, 4158, 4513 to 4550, 4833.

A minimum of 19 hours must be in courses numbered 3000 or above. Mathematics 1115 and 1116 and Computer Science 1060 are recommended. Students are expected to consult closely with their faculty advisers to ensure that their electives are appropriate to their proposed specializations within the field.

ENVIRONMENTAL ANALYSIS TRACK

Department of Geography

Course Requirements	Cr. Hrs.
Geography 1001, 1002, 1600	9
Geography 2151, 2254 or 2356, 2701[1], 2801	10
Geography 4158, 4805 or 4810[2], 4901	10
Geography electives	9
Total	38

College of Liberal Arts

Course Requirements	Cr. Hrs.
English 1157, 1158	6
English Literature*	6
Foreign Language*[3]	9
Arts*	3
Social Science electives*[4]	10
Total	34

Non-College of Liberal Arts

Course Requirements	Cr. Hrs.
Mathematics 1115, 1116	6
Sciences*[5]	11
Total	17
Electives	
Course Requirements	**Cr. Hrs.**
Non-Geography at 3000 level or above*	6
Approved electives*	25
Total	31
Grand Total	120

* See General Course Requirements and Approved Electives in Liberal Arts Section.

[1] Fulfills the oral competency requirement for Liberal Arts.

[2] Fulfills the computer literacy requirement for Liberal Arts.

[3] The nine hours in foreign language must be in the same language. Alternatively, students may opt to take 12 hours in two foreign languages (six hours in each of two languages). If the 12-hour foreign language option is chosen, reduce approved electives by three hours and six hours of the electives must be humanities at the 2000 level or higher. If the nine-hour option is chosen, three hours of 2000 level or higher humanities electives must be taken.

[4] Must include three hours outside of Geography.

[5] Must include eight hours of biological sciences and three hours of chemistry.

Students electing the Environmental Analysis Track must complete a minimum of 38 hours in Geography including those courses shown above. Geography electives must be selected from Geography 2158, 3490, 3822, 4150, 4220, 4513, 4514, 4530, 4540, 4550, and 4833. A minimum of 19 hours must be in courses numbered 3000 or above.

Please note: Students in the Environmental Geography Track must, at a minimum, take Mathematics 1115 and 1116 or equivalent. Eight hours minimum of biological sciences and three hours of Chemistry must be taken to fulfill the science requirement. Three hours of Geology and Computer Science 1060 are recommended. Geography 4805 and 4810 fulfill the Computer Literacy requirement in Liberal Arts.

Students are expected to consult closely with their faculty advisers to ensure that their electives are appropriate to their proposed specializations within the field.

GEOGRAPHIC INFORMATION SYSTEMS TRACK

Department of Geography

Course Requirements	Cr. Hrs.
Geography 1001, 1002	6
Geography 2151, 2254 or 2356, 2701[1], 2801	10
Geography 4805, 4810, 4820, 4830, 4901	16
Geography electives (3000 level or above)[2]	3
Total	35

College of Liberal Arts

Course Requirements	Cr. Hrs.
English 1157, 1158	6
English Literature*	6
Foreign Language*[3]	9
Arts*	3
Social Science electives*[4]	4
Total	28

Non-College of Liberal Arts

Course Requirements	**Cr. Hrs.**
Mathematics 1125, 1126, 2721	9
Sciences*	11
Total	20
Option Requirement	**Cr. Hrs.**
Select GIS, Remote Sensing or Visualization option[5]	17
Total	17

Electives

Course Requirements	**Cr. Hrs.**
Non-Geography at 3000 level or above	6
Approved electives*	14
Total	20
Grand Total	120

* See General Course Requirements and Approved Electives in Liberal Arts Section.

[1] Fulfills the oral competency requirement for Liberal Arts.

[2] 3000 level or above of non-techniques courses and may not include Geography 3850, 3895, 4991, 4992, or 4993.

[3] The nine hours in foreign language must be in the same language. Alternatively, students may opt to take 12 hours in two foreign languages (six hours in each of two languages). If the 12-hour foreign language option is chosen, reduce approved electives by three hours and six hours of the electives must be humanities at the 2000+ level. If the nine-hour option is chosen, three hours of 2000+ humanities electives must be taken.

[4] Must include three hours outside of geography.

[5] The visualization option requires only 16 hours leaving 21 hours available for electives.

Students electing the Geographic Information Systems Track must complete a minimum of 38 hours in geography, including those courses shown above. Geography electives must be selected from courses at or above the 3000 level but may not include Geography 3850, 3895, 4991, 4992, or 4993. In addition, students must complete the courses listed in one of the following options:

1. GIS Option: Geography 4831; and either Geography 4815 or 4825; Computer Science 1581, 1583, 2120; 2121; and either Computer Science 2125 or 3601.
2. Remote Sensing Option: Geography 4821; and one out of Geography 4158, 4550, or 4833; Computer Science 1581, 1583, 2120, 2121; and Biology 26636.
3. Visualization Option: Two out of Geography 4815, 4825, and 4831; Fine Arts 1011 and 2900; Computer Science 1581 and 1583.

Students are expected to consult closely with their faculty advisors to ensure that their electives are appropriate to their proposed specializations within the field.

[6] Biology 1061 and 1063 are prerequisites for Biology 2663.

Certification in Remote Sensing, and Geographic Information Systems: A certificate in Remote Sensing and Geographic Information Systems (RS/GIS) is available to any student who completes one of the following tracks and receives a "C" or better in each of the courses taken.

1. Basic Certificate in Remote Sensing and Geographic Information Systems: (12 hours) This certificate is designed to support the needs of students who require RS/GIS skills as part of an educational emphasis that is not focused on RS/GIS, but anticipate working in a setting in which a basic understanding of these concepts and technologies is helpful. All students must have prior credit in Geography 2801 (or an approved substitute course) and complete the following requirements: Geography 4805, 4810, and 4830. In addition, all students shall select one course from Geography 4815, 4820, 4825, 4831, 6820, 6825, or an approved course from a department other than Geography.
2. Professional Certificate in Remote Sensing and Geography Information Systems: (21 hours) This certificate is designed to support the needs of students who anticipate a central role for RS/GIS in their professional careers, but who do not wish to pursue a RS/GIS track within a geography degree program. All students must show prior credit in Geography 2801(or an approved substitute course) and complete the following requirements: Geography 4805, 4810, 4820, 4830, and 4831. In addition, all students shall select two courses from Geography 4815, 4821, 4825, 6820, 6825; or one course from the preceding sequence and an approved course from a department other than Geography.

Minors in Geography

The department offers several minor areas of concentration each of which requires the completion of 18 credit hours in geography with a 2.0 grade point average.

Minor in Geography: Geography 1001 or 1002, six hours selected from among geography courses at the 2000 level, and nine hours selected from among geography courses at the 3000 level or above.

Minor in Environmental Analysis: Geography 1600, 2151, and 2801, plus nine hours selected from among Geography 2158, 3490, 3822, 4158, 4220, 4513, 4514, 4530, 4540, 4550, 4810, and 4833.

Minor in Cartography, Remote Sensing, and GIS: Geography 2801, 4805, and 4810, plus nine additional hours selected from among Geography 2810, 4815, 4820, 4825, and 4830.

Honors in Geography

An honors program is available for qualified students who wish to earn a bachelor's degree With Honors in Geography. The requirements for graduating With Honors in Geography include:

1. A cumulative grade point average of at least 3.5 in geography, and a minimum overall grade point average of 3.25.
2. Completion of a Senior Honors Thesis which involves earning six hours in Geography 3895. Enrollment in Geography 3895 must be approved by the director of the University Honors Program. The honors thesis is to be defended orally before a committee composed of the thesis director, another member of the geography faculty appointed by the chairman, and a representative of the honors program.

CURRICULUM IN HISTORY

Department of History

Course Requirements	**Cr. Hrs.**
History 1001, 1002	6
History 2501, 2502	6
History 3001[1]	3
History electives	24
Total	39

College of Liberal Arts

Course Requirements	**Cr. Hrs.**
English 1157, 1158	6
English Literature*	6
Foreign Language[2]	9
Arts*	3
Social Science electives[3]	6
2000-level or above Humanities	3
Total	33

Non-College of Liberal Arts

Course Requirements	**Cr. Hrs.**
Mathematics	6
Sciences	11
Computer Science 1000	3
Total	20

Electives

Course Requirements	**Cr. Hrs.**
Non-History at 3000 level or above	6
Approved electives	22
Total	28
Grand Total	120

* See General Course Requirements and Approved Electives in Liberal Arts Section.

[1] This course satisfies the liberal arts oral competency requirement.

[2] The nine hours of foreign language must be in the same language. Alternately, students may opt to take 12 hours in two foreign languages (six hours in each of two languages.) If the 12-hour option is chosen, students may reduce approved electives by three hours; the remaining 19 hours of approved electives must then include three hours of 2000+ humanities.

[3] Must include three hours outside of History.

Students majoring in history must complete a minimum of 39 hours in history. The following courses are required: History 1001, 1002, 2501, 2502, and 3001. In addition, students must complete a minimum of 12 hours of 3000- or 4000-level history electives and 12 hours of additional history electives, any level.

At least nine hours of history electives must be in a chosen concentration: U.S., European, or Non-Western. (The latter includes Africa, Asia, the Middle East, and Latin America). Each student's history electives also must include at least 3 hours of Non-Western and 3 hours from outside the student's chosen field of concentration. Students choosing to major in history should consult with a departmental advisor to plan their program of study.

Advanced courses in foreign language are recommended for students anticipating graduate study.

Minor in History

To achieve a minor in history the student must complete 18 hours credit in history with a 2.0 average. At least six hours must be in courses numbered 3000 or above. Students should consult with a history adviser in planning a minor.

Honors in History

History majors who wish to graduate with honors must meet the following requirements: 1) a cumulative grade-point average of at least 3.5 in all history courses taken, and an overall grade point average of 3.25; 2) successful completion, with an oral defense, of a Senior Honors thesis, which includes earning six hours of credit for History 3999 (Senior Honors Thesis). No more than three hours of credit in History 3999 may be included in the minimum 36 hours of history required for the major.

Successful completion of the above requirements will carry the designation With Honors in History on the student's diploma.

CURRICULUM IN INTERNATIONAL STUDIES

The College of Liberal Arts offers a degree of Bachelor of Arts in International Studies (BAIS) administered through the office of the dean of the College of Liberal Arts by the director of International Studies. The degree's multi-disciplinary curriculum draws upon courses in anthropology, economics, English, fine arts, geography, history, philosophy, political science, sociology, and foreign languages. Courses from these disciplines and an internship with a government agency, a non-governmental international agency, or an international corporation comprise the core requirements of the program. Students in this program complete a 24 credit hour concentrations in any one of the college's four area studies (Africana Studies, Asian Studies, European Studies, and Latin American and Caribbean Studies) or in any of the four topical themes (such as Diplomacy and International Organizations; Environmental Issues and Policy; Ethnicity, Nationalism, and Migration; and Peace & Justice Studies). Other topical themes may be developed by individual students in consultation with faculty advisors and the director of International Studies.

CURRICULUM IN INTERNATIONAL STUDIES

International Studies

Course Requirements	**Cr. Hrs.**
Anthropology 4765[1]	3
Geography 4310	3
Economics 4261	3
Political Science (any two courses from the 4700/4800 series)	6
Sociology 4094[2]	3
History[3]	6
Total	24

Special Requirements and Prerequisites	Cr. Hrs.
Foreign Language (3000 level or higher, not literature)[4]	6
Approved culture course[5]	3
Economics 1203 or 2200	3
Political Science 2600 or 2700[6]	3
Sociology 1051	3
Geography 2801 or Political Science 2900 or Sociology 2708	3
Total	21

College of Liberal Arts

Course Requirements	Cr. Hrs.
English 1157, 1158	6
Literature	6
Mathematics (one course must be MATH 1115)	6
Sciences*	11
Arts*	3
Foreign Language (one language)	12
Computer Literacy[7]	
Oral Competency[8]	
Total	4

Area or Topical Studies[9]	Cr. Hrs.
Total	24

Electives[9]	Cr. Hrs.
Approved electives	7
Total	7
Grand Total	120

* See General Course Requirements in the Liberal Arts Section.

[1] For BAIS students only, the prerequisite for ANTH 4765 is met by three hours of social sciences.

[2] For BAIS students only, the prerequisites for SOC 4094 are met by SOC 1051 and one of the social science methodology courses listed under Special Requirements.

[3] To satisfy the core curriculum requirements in History, students must take six hours in non-Western history or six hours in diplomatic history. Choices for the non-Western history option are: HIST 2000, 2201, 2202, 2302, 2402, 2701, 2702, 4201, 4301, 4304, 4401, 4403, 4406, or any 4000-level HIST course with a non-U.S./non-European focus. (Note: A student whose primary BAIS concentration is area studies should choose six hours of history unrelated to his or her geographic focus.) Choices for the diplomatic history option are: HIST 4381, 4570, 4575, 4580, and 4581.

[4] Foreign language proficiency must be demonstrated by passing six hours of 3000 level (or above) non-literature courses in a language of choice, or competency may be determined by the director of International Studies in consultation with the appropriate faculty in the Department of Foreign Languages.

[5] Any 2000-, 3000- or 4000- level course in non-U.S. anthropology, art history, history, literature or culture, music, or philosophy.

[6] Students pursuing concentrations in Area Studies must take POLI 2600; students pursuing concentrations in Topical Themes must take POLI 2700.

[7] The UNO computer literacy requirement can be met by GEOG 2801, POLI 2900, or SOC 2708.

[8] The UNO oral competency requirement can be met by any 3000-level or higher foreign language conversation course. If a conversation course is not included in the student's six hours of 3000-level or higher language courses, he or she should include in area or topical studies or in electives a course that fulfills the oral competency requirement for majors in any Liberal Arts discipline.

[9] The 31 total hours of course work taken in area/topical studies and as electives must include 15 hours of social sciences and at least three but no more than six hours of internship in the appropriate area. At least 12 of the 24 hours taken in Area or Topical Studies must be at the 2000-level or above. Some concentrations also require that the courses taken to fulfill the concentration be distributed among a minimum number of disciplines.

B.A. IN INTERNATIONAL STUDIES: BUSINESS TRACK

The B.A. in International Studies offers a business track for students seeking a degree program that combines a broad-based liberal arts core curriculum with course work in accounting, marketing, finance, economics, management, and business administration. This program prepares students for careers with international corporations, government agencies, and non-governmental and non-profit agencies that seek professionals with business and financial training, proficiency in at least one foreign language, and a general education in global and cultural issues.

Business Track Curriculum

Core Curriculum	Cr. Hrs.
Anthropology 4765[1]	3
Geography 4310	3
Economics 4261 or 4262[2]	3
Political Science[3]	6
Sociology 4094[4]	3
History[5]	6
Total	24

Special Requirements and Prerequisites

Core Curriculum	Cr. Hrs.
3000+ Foreign Language (not literature)[6]	6
Approved culture course[7]	3
Economics 1203 and 1204	6
Political Science 2700	3
Sociology 1051	3
Business Administration 2780[8]	3
Total	24

INTERNATIONAL BUSINESS TRACK

(students should take courses in the following order if possible)

Course Requirements	Cr. Hrs.
Accounting 2100	3
Marketing 3501	3
Marketing 4546	3

Finance 3300	3
Management 3401	3
Management 4446	3
One course selected from:	
Economics 4261 or 4262 Hotel, Restaurant Tourism 2050 Or other courses approved by the director of the BAIS program Or one of the following courses, which allow enrollment only after completion of a prerequisite course or special department or school consent, and may, therefore, add hours to the 120-hour program. Hotel, Restaurant, Tourism 42509 Business Administration 3048[10]	
Accounting 4126[11]	3
Total	21

General Degree and College of Liberal Arts

Course Requirements	**Cr. Hr.**
English 1157 and 1158	6
Literature	6
Math 1115[12] and 2314	6
Sciences*	11
Arts*	3
Foreign Languages (one language)[6]	12
Computer Literacy[8]	
Oral Competency[6]	
Total	44

Course Requirements	**Cr. Hr.**
Electives[13]	7
Total	7
Grand Total	120

* See General Course Requirements in Liberal Arts Section.

[1] For BAIS students only, the prerequisite for ANTH 4765 is met with 3 hours of social sciences

[2] Students are advised to take FIN 330 before taking ECON 4262.

[3] To satisfy the core curriculum requirement in Political Science, students must choose two of the following courses: POLI 4700, 4705, 4710, 4720, 4770, 4780, 4800, 4850.

[4] For BAIS students only, the prerequisites for SOC 4094 are met by SOC 1051 and MATH 2314.

[5] To satisfy the core curriculum requirements in History, students must take 6 hours in non-Western history or 6 hours in diplomatic history. Choices for the nonwestern history option are: HIST 2000, 2201, 2202, 2302, 2402, 2701, 2702, 4201, 4301, 4304, 4401, 4406, or any 4000-level HIST course with a non-U.S./non-European focus. (Note: A student whose primary BAIS concentration is area studies should choose 6 hours of history unrelated to his or her geographic focus.) Choices for the diplomatic history option are: HIST 4381, 4570, 4575, 4580, 4581.

[6] Foreign language proficiency for the BAIS must be demonstrated by passing 6 hours of 3000+ level non-literature courses in a language of choice, or competency to be determined by the Director of International Studies in consultation with appropriate faculty in the Department of Foreign Languages. If a 3000-level conversation course is included in those 6 hours, it will also satisfy the UNO oral competency requirement. However, if a conversation course is not included, students should include in Electives a course that fulfills the oral competency requirement for majors in any relevant discipline.

[7] The culture course requirement may be met by any 2000-, 3000-, or 4000-level course in non-U.S. anthropology, art history, history, literature or culture, music, or philosophy.

[8] The UNO computer literacy requirement is met by BA 2780. The prerequisite for BA 2780 is MATH 1115 or 1125 and successful completion of the College of Business Administration computer proficiency test.

[9] Prerequisite: HRT 2050, HRT 3011, or consent of school.

[10] Prerequisite: BA 3010

[11] Prerequisite: ACCT 3122 or consent of department.

[12] Students with an ACT math score lower than 18 or an SAT math score lower than 440 must take DEVM 107 before taking MATH 1115.

[13] The total number of electives can vary depending on how all other requirements are met.

CURRICULA IN MUSIC

Students working toward the Bachelor of Arts in Music may elect one of two emphases offered through the College of Liberal Arts: Jazz Studies, or Music Studies. Students may also choose Music Education: Instrumental or Music Education: Vocal offered through the College of Education. Students working toward the Bachelor of Arts in Music Education should refer to the curriculum listings in the College of Education section of the catalog. Because of the specific skill development needed for each emphasis, students should follow the appropriate listing of courses.

Students are admitted to the Music Major Program upon recommendation of the faculty in the chosen emphasis area. Please note the following requirements according to emphasis:

1. For Jazz Studies: an audition demonstrating potential for successful completion of required public recitals.
2. For Music Studies: an interview with the area coordinator.

The University is an accredited institutional member of the National Association of Schools of Music.

Students majoring in music must meet the following requirements:

1. a. Piano through Music 1408 or equivalent as determined by placement examination for Instrumental Music Education, Vocal Music Education and Music Studies majors, except where piano is the major instrumental. Students must also pass a juried proficiency exam in order to graduate..
   b. Piano through Music 1408 or equivalent as determined by placement examination for instrumental performance, instrumental music education and music studies majors, except where piano is the major instrument. Students must also pass a juried proficiency exam in order to graduate.
   c. MUS 1407 and MUS 1408 may not be used for music

elective credit.

2. Full-time students must enroll in one ensemble appropriate to their emphasis area each semester (except during the student teaching semester for Music Education majors) even though the six-hour requirement may have been fulfilled. Part-time students are strongly encouraged to participate in an ensemble every semester. Any student, whether full-time or part-time, who is enrolled in an applied music course, must enroll in an ensemble. Students with an emphasis in composition, piano or music studies should consult with their advisor to choose an ensemble.
3. All full-time Music and Music Education majors are required to register for Student Recital Hour (MUS 1900) each semester and must meet attendance requirements. Majors with an emphasis in Performance, Jazz Studies, and Vocal or Instrumental Music Education are required to perform in at least one Recital Hour each semester (with the approval of the Applied Music Lesson instructor.)

Jazz Studies Emphasis

Department of Music Course Requirements**	Cr. Hrs.
Music 1003	3
Music 1101, 1102	12
Music 2005[1]	3
Music 2109, 2110, 2605, 2606	8
Music 2705, 2706	4
Music 2205	3
Music 4109, 4110, 4705, 4706	10
Music 4807	2
Music 3990[2]	0
Ensemble[3]	6
Vocal/Instrumental major[4]	18
Music electives[5]	9
Total	78

College of Liberal Arts Course Requirements	Cr. Hrs.
English 1157, 1158	6
Literature	6
Foreign Language[6]	9
History 1002	3
Social Science*[7]	9
Total	33

Non-College of Liberal Arts Course Requirements	Cr. Hrs.
Mathematics*	6
Science*	11
Total	17
Grand Total	128

* See General Course Requirements and Approved Electives in Liberal Arts Section.

** Piano proficiency at Music 1102 level prerequisite to Music 2109. Determined by placement exam.

[1] Meets university computer literacy requirements.

[2] Recital must be presented in final semester of applied study. Satisfies liberal arts oral competency requirements.

[3] See music major requirements listed under Curricula in Music.

[4] Two semesters of additional applied lessons may be taken at subsidized applied lesson rate.

[5] Six hours must be non-ensemble.

[6] The nine hours in foreign language must be in the same language. Alternatively, students may opt to take 12 hours in two foreign languages (six hours in each of two languages).

[7] At least three hours must be outside History, and six hours must be 3000 or above.

Music Studies Emphasis

Department of Music Course Requirements**	Cr. Hrs.
Music 1005	3
Music 1101, 1102	12
Music 2005[1]	3
Music 2101, 2102, 2103, 2104[2]	8
Music 2201, 2202, 1003, 1004 (any 2)	6
Ensemble[3]	6
Music electives[4]	16
Total	54

College of Liberal Arts Course Requirements	Cr. Hrs.
English 1157, 1158	6
Literature	6
Foreign Language[5]	9
History 1002	3
Social Science*[6]	9
Total	33

Non-College of Liberal Arts Course Requirements	Cr. Hrs.
Mathematics*	6
Sciences*	11
Total	17

Electives	Cr. Hrs.
Fine Arts[7]	3
Non-Music electives	13
Total	22
Grand Total	120

* See General Course Requirements and Approved Electives in Liberal Arts Section.

** Piano proficiency through Music 1408 unless jazz theory sequence is chosen. See music major requirements listed under Curricula in Music.

[1] Meets university computer literacy requirements.

[2] Students may substitute the jazz theory sequence of MUS 2109, 2110, 2605, and 2606. Permission of jazz area required.

[3] See music major requirements listed under Curricula in Music.

[4] May include up to four semesters applied lessons, by audition only. Only three hours of ensemble may be applied to the degree. Nine hours must be non-ensemble and 3000 level or higher.

[5] The nine hours in foreign language must be in the same lan-

guage. Alternatively, students may opt to take 12 hours in two foreign languages (six hours in each of two languages). If the 12 hours in two foreign languages are chosen, reduce approved electives by three hours.

[6] At least three hours must be outside History, and six hours must be 3000 or above.

[7] To be chosen from fine arts or drama.

Minors in Music

The Music Department offers two options for students who wish to pursue a minor in music. Students electing Option 2 must audition on their instrument or voice to be accepted into that option.

Option 1

This option requires the completion of 20 credit hours in music with a grade of C or better in each course.

1. Twelve hours of Theoretical Foundations (Music 1101, 1102).
2. Six hours from the following: Music 1000, 1003, 1004, 2201, 2202 (Music 2201 and 2202 by consent of department.
3. Two hours of Ensemble (Music 1900 series).

Option 2

This option requires the completion of 22-23 credit hours in music with a grade of C or better in each course.

1. Twelve hours of Theoretical Foundations (Music 1101, 1102).
2. Three hours from the following: Music 1000, 1003, 1004, 2001, 2002 (Music 2201 and 2201 by consent of department)*.
3. Six hours of Applied Music (to be chosen from Applied Music Major courses or class instruction based upon audition).**
4. Two hours of Ensemble (Music 1900 series).

* For students whose applied area is Keyboard, three hours to be chosen from the Music Appreciation or History area will be substituted for the piano class component in Music 1101/1102.

** Lesson fees for non-majors will apply.

Honors in Music

Students wishing to graduate with honors in music must meet the following requirements:

I. A cumulative grade-point average of 3.5 in all music courses taken and an overall grade-point average of 3.25.

II. A. Completion of Music 3099 (Senior Honors Thesis) for six credits, in addition to the usual course requirements for the degree. These credits must be completed within three consecutive semesters.

B. Satisfactory performance in an oral examination defending the thesis before a committee composed of the thesis director, a representative of the Honors Program, and one other faculty member of the Music Department.

1. Performance/Composition/Jazz Studies Emphasis
   a. Student must perform or have a composition performed in at least two Music 1900 (Recital Hour) programs during each semester of thesis enrollment.
   b. In the senior year, student must present at least one approved off-campus performance.
2. Music Studies Emphasis
   a. Student must present a lecture in at least two Music 1900 (Recital Hour) programs during each semester of the thesis enrollment.
   b. In the senior year, student must present at least one approved off-campus lecture.

CURRICULUM IN PHILOSOPHY

Department of Philosophy

Course Requirements	**Cr. Hrs.**
Philosophy 3030	1
Philosophy electives	29
Total	30

College of Liberal Arts

Course Requirements	**Cr. Hrs.**
English 1157, 1158	6
English Literature*	6
Foreign Language*	9-12
Social Science electives*[1]	12
Arts*	3
Total	36-39

Non-College of Liberal Arts

Course Requirements	**Cr. Hrs.**
Mathematics*	6
Sciences*	11
Computer Literacy*	3
Total	20
Electives	**Cr. Hrs.**
Non-Philosophy at the 3000 level or above*	6
Approved electives*	25-28
Total	31-34
Minimum Grand Total	120

* See General Course Requirements and Approved Electives in Liberal Arts Section.

[1] Must include two different subject areas and six hours at the 2000 level or above.

A minimum of 30 semester hours of philosophy, at least 15 of which are in courses numbered 3000 or above, is required for the major in philosophy. Not more than three hours of 1000-level courses will be allowed to count toward this 30-hour total. Majors are required to take Philosophy 3030 during their senior year. Majors are also required to complete at least one course in each of the four central areas of philosophy: logic, value theory, history of philosophy, and metaphysics/epistemology. A course's area can be identified by the second digit of its catalog number, a "1" for logic, a "2" for value theory, a "3" for history of philosophy, and a "4" for metaphysics and epistemology. Courses having any other number as second digit do not satisfy a distribution requirement.

Philosophy majors are required to demonstrate computer literacy by receiving credit for Computer Science 1000, or any other three-credit course offered by the Department of Computer Science, or any three-credit course which satisfies

the computer literacy requirement in the curriculum of any other major at UNO. In unusual circumstances, one or more of these requirements may be waived. A student seeking such an exemption should petition the department.

Philosophy majors should, in consultation with a departmental academic adviser, plan in advance a well-balanced and coherent program of study tailored to their particular needs and interests. They are also strongly encouraged to retain the same academic adviser throughout their years as a philosophy major.

Minor in Philosophy

A minimum of 18 credit hours of philosophy, with a grade-point average of at least 2.0, is required for a minor in philosophy. At least six hours must be in courses numbered 3000 or above; another six hours must be in courses numbered 2000 or above. Minors in philosophy are also required to complete at least one course in each of three of the four central areas of philosophy, as defined in the requirements for majors.

Honors in Philosophy

Philosophy majors are eligible to enter the department's honors program during the senior year. To graduate with honors, students must meet the following requirements:

A cumulative grade-point average of at least 3.5 in philosophy courses, an overall grade-point average of at least 3.25, and acceptable completion of a senior honors thesis (including six hours of credit for Philosophy 3001).

Students must arrange for a faculty member in the department to direct the thesis. After completion, the thesis must be defended orally before a committee composed of the thesis director, another member of the department, and a representative of the University Honors Program.

CURRICULUM IN POLITICAL SCIENCE

Downloadable checklists are available online at http://poli.uno.edu/.

Department of Political Science

Course Requirements	**Cr. Hrs.**
Political Science 2151, 2600 or 2700, 2900[1], 4999	10
Political Science electives	24
Total	34

College of Liberal Arts

Course Requirements	**Cr. Hrs.**
Arts*	3
Film, Theatre and Communication Arts 2650 or 2660[2]	3
English 1157, 1158	6
English Literature*	6
Foreign Language*	9
History 2501, 2502	6
Social Science/Humanities Electives (non-political science at above 3000 level)	12
Total	45

Non-College of Liberal Arts

Course Requirements	**Cr. Hrs.**
Mathematics*	6
Science*	11
Economics (1203, 1204, or 2000 level or above)	3
Total	20

Electives	**Cr. Hrs.**
Approved electives	21
Total	21
Grand Total	120

* See General Course Requirements and Approved Electives in Liberal Arts Section of the University Catalog.

[1] Fulfills the computer literacy requirement for political science majors.

[2] Or satisfaction of the oral communications competency requirement through another course with significant oral component; must have approval of the department chair.

Department of Political Science

Course Requirements	**Cr. Hrs.**
Political Science 2151, 2200, 2600 or 2700[1], 4999	13
Political Science 4170, 4410, 4420, 4440, 4640, 4780, 4820, 4860 (choose 3)	9
Political Science Electives	12
Total	34

College of Liberal Arts

Course Requirements	**Cr. Hrs.**
Arts*	3
Film, Theatre and Communication Arts 2650 or 2660[2]	3
English 1157, 1158	6
English Literature*	6
English 2151, 2152, or 4158	3
Foreign Language*	9
History 2501, 2502	6
Philosophy (2207 Recommended)	3
Sociology 4219, 4921, 4954; History 4561, 4562; Economics 4251, 4552; Film, Theatre and Communication Arts 4670 (choose 2)	6
Social Science and Humanities electives (non-political science at or above 3000 level)	6
Total	**51**

Non-College of Liberal Arts

Course Requirements	**Cr. Hrs.**
Mathematics*	6
Science*	11
Economics 1203, 1204, or 2000 level or above	3
Total	20

Electives	**Cr. Hrs.**
Approved electives	15
Total	15
Grand Total	120

* See General Course Requirements and Approved Electives in Liberal Arts Section of the University Catalog.

[1] Fulfills the computer literacy requirement for political science majors.

[2] Either course meets the oral competency requirement. This requirement may also be met through another course with significant oral component; must have approval of the department chair.

CURRICULUM IN POLITICAL SCIENCE

Quantitative Research Concentration

Department of Political Science

Course Requirements	Cr. Hrs.
Political Science 2151, 2600 or 2700, 2900[1], 3900 or 4900, 4999	13
Political Science electives	21
Total	34

College of Liberal Arts

Course Requirements	Cr. Hrs.
Arts*	3
Film, Theatre and Communication Arts 2650 or 2660[2]	3
English 1157, 1158	6
English Literature*	6
Foreign Language*	9
History 2501, 2502	6
Philosophy 1100, 2102, 2430, 3101, 3431 (choose 2)[3]	6
Social Science and Humanities electives (non-political science at or above 3000 level)*	12
Total	51

Non-College of Liberal Arts

Course Requirements	Cr. Hrs.
Mathematics 1115 or 1125, and 1116 or 1126 or 1140	6
Mathematics 2010, 2090, 2314, 3300; Psychology 2300, 4310; Sociology 4788 (choose 1)[2]	3
Science*	11
Economics 1203, 1204	6
Total	26
Electives	**Cr. Hrs.**
Approved electives	9
Total	9
Grand Total	120

* See General Course Requirements and Approved Electives in Liberal Arts Section of the University Catalog.

[1] Fulfills the computer literacy requirement for political science majors.

[2] Or satisfaction of the oral communications competency requirement through another course with significant oral component; must have approval of the department chair.

[3] Note that some of these courses fulfill Social Science/Humanities electives.

Students concentrating in political science must complete 34 hours in their major, including courses 2151, 2600 or 2700, 2900, and 4999 (which also fulfills the computer literacy requirement) as well as three hours in economics (1203, 1204, or 2000 level or above), six hours in math above 1022, and six hours in History 2501 and 2502.

The nine hours in foreign language must be in the same language. Alternatively, students may opt to take 12 hours in two foreign languages (6 hours in each of two languages). If the 12-hour option is chosen, it reduces approved electives by 3 hours. Be sure that there is at least one Humanities course at or above the 2000 level among the electives.

Students must also demonstrate oral communication competence, either by passing Film, Theatre and Communication Arts 2650 or 2660, or by satisfying the significant oral component of any course that includes such a component.

Students with 45 hours or more who have not completed Political Science 2900 are advised to take that course at the first opportunity.

At least 18 hours in political science must be chosen from courses numbered over 3000. At least one course must be chosen in U.S. politics: 4170, 4210, 4600, 4601, 4621, 4630, 4640, 4650, 4653. At least two upper-level courses must be chosen from the fields of comparative politics (course numbers beginning with '47') and/or international relations (course numbers beginning with '48').

Students shall select 12 additional hours in humanities and social sciences (other than political science) at or above the 3000 level and 22 additional hours in any field.

Minor in Political Science

Students must complete 18 credit hours in political science, including Political Science 2151, 2600, and 2700. The remaining nine hours are to be chosen from political science courses above the 3000 level. A 2.0 average must be achieved in these courses in order to earn the minor.

Minor in Political Science with Pre-Law Concentration

Students must complete 18 credit hours in political science. Political Science 2151, and 2200 are required. The remaining 12 hours are to be chosen from Political Science 2450, 4410, 4420, 4440, 4640, and 4860. A 2.0 average must be achieved in these courses in order to earn the minor.

Honors in Political Science

Students majoring in political science and wishing to graduate with honors must meet the following requirements: A cumulative grade point average of at least 3.5 in political science courses, an overall grade point average of at least 3.25, and completion of a senior honors thesis which includes earning six hours of credit for Political Science 4991. Students must arrange for a faculty member in the department to direct the thesis; and the thesis is to be defended orally before a committee composed of the thesis director, another member of the department, and a representative of the honors program.

Curriculum in Bachelor of Science in Urban Studies and Planning

General Education Requirements	Cr. Hrs.
English 1157, 1158 (or 1159)	6
Literature	6
Mathematics (Must include Mathematics 1115)	6
Sciences (including 2 hours of lab)	11
English 2152	3
Arts	3
Film, Theatre and Communication Arts 2650	3
Social Sciences[1]	6
Computer Science 1000 or Business Administration 2780	3
Humanities or Social Science Elective	3
Total	50

Foundation Studies	Cr. Hrs.
Economics 1203	3
Statistics sequence[2]	3
Social Sciences (6 hours from each of 3 subjects)[1]	18
Urban Studies 3002, 4200	6
Urban Studies and related 4000-level course from support areas[1]	30
Total	60

Electives	Cr. Hrs.
Electives Total	10
Grand Total	120

[1] See College for a list of acceptable courses.

[2] Geography 2801 or Political Science 2900 or Sociology 2702.

CURRICULA IN SOCIOLOGY

Bachelor of Arts in Sociology

Department of Sociology

Course Requirements	Cr. Hrs.
Sociology 1051	3
Sociology 2707, 2708[1]	7
Sociology 4086	3
Sociology electives	17
Total	30

College of Liberal Arts

Course Requirements	Cr. Hrs.
English 1157, 1158	6
English Literature*	6
Foreign Language*[2]	9
Humanities (2000+)	3
Arts*	3
Social Science electives*	6
Total	33

Non-College of Liberal Arts

Course Requirements	Cr. Hrs.
Mathematics*	6
Sciences*	11
Total	17
Electives	**Cr. Hrs.**
Non-Sociology at 3000 level or above*	6
Approved electives*	34
Total	40
Grand Total	120

* See General Course Requirements and Approved Electives in Liberal Arts Section.

[1] Sociology 2707 also satisfies oral competency requirements. Sociology 2707 and 2708 also satisfy computer literacy requirements.

[2] The nine hours in foreign language must be in the same language. Alternatively, students may opt to take 12 hours in two foreign languages (six hours in each of two languages). If the 12-hour option is chosen, reduce approved electives by three hours; the remaining 31 hours of approved electives must then include three hours of 2000+ humanities.

Students majoring in sociology must complete a minimum of 30 hours in sociology, including 1051, 2707, 2708, and 4086 (and excluding Sociology 1000). At least nine hours must be completed from among the following courses: Sociology 4094, 4101, 4107, 4124, 4161, 4216, and 4219.

Minor in Sociology

Students must complete the following requirements for a minor in sociology:

1. A minimum of 18 credit hours in sociology with a 2.0 grade point average.
2. Sociology 1051 or equivalent.
3. Sociology 2708 or equivalent. Political Science 2900 or Psychology 2300 will substitute for this requirement but will not reduce the required number of credit hours in sociology.
4. A minimum of nine credit hours in sociology courses numbered 3000 or higher.

Honors in Sociology

Students wishing to graduate with Honors in Sociology must:

1. Fulfill all requirements for the major in sociology.
2. Maintain a cumulative grade point average of 3.5 in sociology courses and 3.25 overall.
3. Complete a senior honors thesis which includes earning six hours of credit for Sociology 3099.

American Humanics Certification Program

The Department of Sociology administers the American Humanics Certification Program which is open to any undergraduate major or baccalaureate degree holder. The American Humanics Certification Program prepares students for careers with youth and human service organizations. Program participants must join the American Humanics Student Organization and complete the following courses required for certification.

Course Requirements for American Humanics Certification

Course Requirement	Cr. Hrs.
Accounting 2100	3
Marketing 3501	3
Sociology 4101 or Management 3401 or Management 3411 or Political Science 4101	3
Sociology 4191[1]	3
Sociology 4192[2]	3
Sociology 3091[3]	1
Sociology 3096 and 3097 or Management 3090 or Political Science 4998 or Psychology 3095 or Anthropology 4790 or English 4398[4]	6
Total	22

[1] Sociology 4191 (Seminar in Not-For-Profit Organizations) is cross-listed with LSU-Shreveport (SOCL 492) and may be taken for UNO credit via the compressed video system.

[2] Sociology 4192 (Practicum in Not-For-Profit Organizations) is a one credit course that must be repeated for at least three hours of credit. This course is cross-listed with LSU-Shreveport

(SOCL 392) and may be taken for UNO credit via the compressed video system.

[3] All program participants must attend the American Humanics Training Institute for at least one four-day session at their own expense (estimated cost $800) for which they will earn one credit of independent study (Sociology 3091).

[4] American Humanics interns must work in a non-profit setting. American Humanics internships require at least a 2.5 overall GPA, or at least a 2.75 GPA in the student's last 30 hours.

Students interested in the American Humanics Certification Program register through the undergraduate coordinator in the Sociology Department.

CURRICULUM IN SPANISH

Department of Foreign Languages

Course Requirements	**Cr. Hrs.**
Spanish 1001, 1002, 2001, 2002	12
Spanish 3031, 3041, 3042, 3055, 3100, 3101	18
Spanish 3002, 3197, 3500	5
Spanish electives (including 6 hours at 4000 level)	9
Total	44

College of Liberal Arts

Course Requirements	**Cr. Hrs.**
English 1157, 1158	6
English 2341, 2342	6
History 1001, 1002	6
Social Sciences (non-History)*	3
Latin-American or European History	6
Arts*	3
Total	30

Non-College of Liberal Arts

Course Requirements	**Cr. Hrs.**
Mathematics*	6
Sciences*	11
Computer Science 1000	3
Total	20
Electives	**Cr. Hrs.**
Non-Spanish at the 3000 level or above	6
Non-Humanities	4
Approved electives*	16
Total	26
Grand Total	120

* See General Course Requirements and Approved Electives in Liberal Arts Section.

Spanish requirements for Spanish majors:

1. A minimum of 30 semester hours in Spanish courses, not including 1001, 1002, 2001 and 2002.
2. Spanish 3031, 3041, 3042, 3055, 3100, 3101, and 3002. Spanish 3055 and 3100 and 3101 must be taken prior to, or concurrently with, more advanced literature courses.
3. At least nine hours of Spanish courses beyond 3000, including six hours at the 4000 level.
4. Spanish 3197 will fulfill the University requirement for oral proficiency.
5. Spanish 3500 - The Written Exit Exam

General requirements for Spanish majors:

1. English 2341, 2342 (to be taken prior to, or concurrently with, Spanish 3055, 3100, 3101).
2. History 1001, 1002.
3. Latin-American or European History (six hours of courses numbered above 2000; Spanish 4201 or 4202 may be substituted for three or six of these hours. If Spanish is used, equal number of hours of social science must be elected for each substitution.)

In all cases college subject requirements should be completed before taking electives. Refer to the university and college requirements for particulars. In conference with a foreign language adviser each student will plan a balanced and coherent program designed for the student's particular needs and interests. Through choice of electives the student may wish to combine the major program with another field of study: a second foreign language and literature, linguistics, the civilization of an area, an allied subject within the humanities, an allied field within the social sciences, sciences, or business administration.

Minor in Spanish

A minor requiring 18 credit hours of Spanish with a 2.0 grade point average is offered. Specific courses are: 2002 or 2004, 3031, 3041, 3042, 3100, or 3101, and three additional hours beyond 3101.

Honors in Spanish

An honors program in Spanish is available to superior students, both Spanish majors and non-majors. Successful completion of this program will carry the designation With Honors in Spanish on the student's diploma.

Honors in Spanish for Spanish majors:

To graduate with honors in Spanish, Spanish majors must:

1. Fulfill the usual requirements for Spanish majors.
2. Maintain a minimum cumulative grade-point average of 3.5 in Spanish courses and an overall 3.25 average.
3. Complete a minimum of six credit hours in interdepartmental (Arts and Sciences) honors courses.
4. Receive credit for Spanish 3199 by writing an honors essay, as well as a summary of it to be written in Spanish, approved by three members of the foreign language faculty.
5. During the course of the program, but prior to the writing of the honors essay, the student must demonstrate oral proficiency in the language by means of an examination administered by the faculty.

Honors in Spanish for students not majoring in Spanish:

To graduate with honors in Spanish, students not majoring in Spanish must:

1. Complete a minimum of 12 semester hours in Spanish courses numbered 3100 or above. These courses, which must be approved by the Spanish faculty, must include at least six hours in courses numbered 3200 or above.
2. Maintain a minimum cumulative grade-point average of 3.5 in Spanish courses and an overall 3.25 average.

3. Complete a minimum of six credit hours in interdepartmental (Arts and Sciences) honors courses.
4. Receive credit for Spanish 3199 by writing an honors essay, as well as a summary of it to be written in Spanish, approved by three members of the foreign language faculty.
5. During the course of the program, but prior to the writing of the honors essay, the student must demonstrate oral proficiency in the language by means of an examination administered by the faculty.

CURRICULUM IN WOMEN'S STUDIES

Women's Study Program

Course Requirements	**Cr. Hrs.**
Women's Studies 2010, 3095, 4078, 4080	12
Women's Studies electives	27
Total	39

College of Liberal Arts

Course Requirements	**Cr. Hrs.**
English 1157, 1158	6
English Literature*	6
Foreign Language*	12
Arts*	3
Social Science electives*	12
Total	39

Non-College of Liberal Arts

Course Requirements	**Cr. Hrs.**
Mathematics*	6
Sciences*	11
Computer Science 1000	3
Total	20
Electives	**Cr. Hrs.**
Non-Women's Studies at 3000 level or above*	6
Approved electives*	16
Total	22
Grand Total	120

* See General Course Requirements and Approved Electives in Liberal Arts Section.

Students majoring in Women's Studies must complete a minimum of 39 hours in:

Core Courses: 12 hours, consisting of Women's Studies 2010, 3095, 4078, and 4080.

Elective Courses: 27 hours, representing at least three different departments and covering the four knowledge areas of sexuality and gender; race/ethnicity and class in the U.S.; global perspectives; and creative arts.

1. At least 18 hours of these electives must be drawn from Women's Studies courses or courses cross-listed in Women's Studies. Such approved electives include:
   a. Women's Studies 2090, 3090, 3091, 3092, 3093, 4070, 4090.
   b. Sexuality and Gender: English 2376, 4286, 4376; Health Promotion 4705; Philosophy 2203; Sociology 4107, 4130.
   c. Race/ethnicity and class in the U.S.: History 2587, 4547; Sociology 4107, 4130, 4180.
   d. Global Perspectives: Anthropology 3737, Political Science 4670.
   e. Creative Arts: DFilm, Theatre and Communication Arts 2695; English 2376, 2378, 4376, 4378.
2. Up to nine hours of these electives may be drawn from cognate courses. Each semester a roster of cognate courses is available from the director of Women's Studies. Suggested cognate courses include:
   a. Sexuality and Gender: Anthropology 2051, 2052; Political Science 4621; Sociology 4124.
   b. Race/ethnicity and class in the U.S.: Curriculum and Instruction 4620; Film, Theatre and Communication Arts 3400; English 2071, 2072; History 4551, 4552; Sociology 4124, 4161.
   c. Global Perspectives: Anthropology 2051, 2052; Curriculum and Instruction 4620, 4660.
   d. Creative Arts: English 2071, 2071.

Honors in Women's Studies

Students wishing to graduate with Honors in Women's Studies must:

1. Fulfill all requirements for the major in Women's Studies.
2. Maintain a cumulative grade-point average of 3.5 in Women's Studies courses for the major and 3.25 overall.
3. Complete a senior honors thesis, with an oral defense, which includes earning six hours credit for Women's Studies 3099. No more than three hours of credit for Women's Studies 3099 may be applied toward the Women's Studies major requirements.

Minor in Women's Studies

The requirements of the minor in Women's Studies are:

1. Completion of the requirements of a degree in one of the colleges at UNO.
2. Completion of Women's Studies 2010, Introduction to Women's Studies.
3. Credit in courses on Women's Studies, to be approved by the director of Women's Studies, for a total of 18 credit hours with a 2.0 grade-point average to include at least six credit hours at the 3000 level or above.
4. To complete the 18 credit hours, in addition to the major, the students must choose from a minimum of three disciplines, with no more than six credit hours from any one discipline.

College of Sciences

Joe M. King, Dean

The College of Sciences offers degree curricula in biological sciences, chemistry, computer science, environmental science and policy, Earth and Environmental Sciences, geophysics, mathematics, physics, and psychology. From course offerings of the various departments, the College of Sciences can also prepare a student for professional study in medicine, dentistry, medical technology, pharmacy, veterinary medicine, nursing, dental hygiene, occupational therapy, ophthalmic medical technology, physician's assistant, physical therapy, rehabilitation counseling, and respiratory therapy. In several of these, a bachelor's degree is granted upon successful completion of a prescribed two- or three-year program at UNO plus specific professional study.

A student who plans to pursue a degree program in the College of Sciences should make use of the high school grades 9 through 12 in developing as fully as possible his or her potential as a student. It is recommended that during these four years the student should complete the following work;

Mathematics: Four years, including two of algebra, one of geometry, and one of advanced mathematics (to include the equivalent of at least one-half year of trigonometry)

English: Four years

Social Sciences: Three years

Science: Three years

Foreign Language: Four years of one language. Note in subsequent pages that the language requirement differs among the several departments. If the student in high school can take a language which meets the requirements of his or her proposed college curriculum it will be advantageous.

The departments within the College of Sciences are prepared to advise a prospective student or an enrolled student at any time.

College of Sciences Degree Requirements

The College of Sciences has established the following degree requirements which must be completed by all students working toward a baccalaureate degree. Most curricula demand more than the minimum completions designated here and may call for specific courses where the general requirements allow a choice. Each student is held responsible for knowing degree requirements, for enrolling in courses that fit into his or her degree program, and for taking courses in the proper sequence to ensure orderly progression of the program.

Subject Requirements

1. Sciences
   At least 48 hours in the College of Sciences, to include:
   a. At least six hours of mathematics. See major for specific course requirements.
   b. An eight semester-hour sequence including laboratory outside the student's major in one of the following: biological sciences, chemistry, Earth and Environmental Sciences, or physics. The following biological sciences are acceptable: 1073, 1071, 1083, 1081; or 1073, 1071, 2014; or 1083, 1081, 2114. Course descriptions should be consulted for the prerequisites for Biological Sciences 2014 or 2114.
   c. An additional eight semester hours in science courses other than the student's major. No science credit is given for certain College of Sciences courses designated by the College of Sciences Faculty Council. A list of such courses is available in the College of Sciences office.
2. Humanities and Social Sciences At least 33 hours in the humanities, arts, and social sciences, to include completion of:
   a. English 1158 or 1159 with a grade of "C" or better.
   b. Twelve hours above the freshman level of which at least six must be in literature at the 2000 level or above.
   c. At least six hours in the social sciences and at least three hours in humanities other than English and three hours in arts.

Humanities and social sciences courses must be chosen from the areas of concentration as listed in this catalog under University Regulations with the exclusion of education courses classified as health-safety or physical education. A maximum of three hours in skill courses in music and art (e.g., piano, voice, drawing) will be accepted as humanities electives.

Requirements for the Baccalaureate Degree

The degree of Bachelor of Science may be granted upon satisfactorily meeting the following requirements:

1. Completion of the general degree requirements of UNO.
2. Completion of the degree requirements of the College of Sciences.
3. Completion of a program of study established by the department concerned (or for non-departmentalized areas by a college committee). This program must appear in a catalog in force while the student is in residence. If the student breaks enrollment (either voluntarily or by compulsion) for two consecutive semesters (not one semester and a summer term) he/she may not elect a catalog earlier than the one in force at the time of re-enrollment.
4. Approval of all electives by the College of Sciences.

The College of Sciences assists the student in monitoring degree progress by the completion of a preliminary graduation check-out, prepared when the student has completed at least 75 hours, and an official graduation check-out prepared the semester before the student is expected to graduate. It is the student's responsibility to verify these check-outs with the department of his or her major and discuss any problems with the undergraduate coordinator and the college counselor. This process assures that the student's final transcript meets all the requirements for the baccalaureate degree in his or her major.

Transfer Students

A transfer student is expected to meet all admission and degree requirements listed above. He or she should consult with a College of Sciences counselor and the undergraduate coordinator of the major department as soon as possible in order to make maximum use of the transfer credit. General science courses usually are not acceptable as transfer credit. A student may request a reevaluation of a course for which credit is denied if the subject matter covered seems to warrant this action. Acceptance of credit by the University does not mean that this credit may always be applied by the student in the chosen curriculum. The college may decline to accept transfer credits in any course in which a grade lower than C has been received.

A transfer student must meet all the quality point averages (overall, college, department, and last 60 hours) listed in the general degree requirements of the University. These requirements are applied to all college work wherever attempted. The transfer student must also have a 2.0 in each of these averages on work attempted at UNO. In addition, a student transferring from another university is required to earn a minimum of 15 hours in his/her major in the College of Sciences at UNO.

College Warning

Once a student in the College of Sciences has attempted 60 hours, he/she will be given a college warning whenever either the UNO or overall average in courses offered in the College of Sciences* is ten or more quality points below a 2.0. The warning will serve as a reminder to the student that he/she must earn at least a 2.0 science average, both at UNO and overall, in order to earn a degree from the University.

* Departments of Biological Sciences, Chemistry, Computer Science, Earth and Environmental Science, Mathematics, Physics, and Psychology.

Program Planning

The student should follow the curriculum established by the department as closely as possible. The curricula for the different departments in the college are presented on the following pages. Each student is responsible for the attainment of personal, career, and intellectual objectives. Planning is required if maximum benefit is to be received from the college years; students must examine their own goals and consult an adviser early in order to take full advantage of free electives, science electives, and courses offered to fulfill general degree requirements. For alternative paths to remain available, it is frequently necessary that certain electives be taken during the sophomore year. The departmental adviser or college counselor should be consulted before the end of the freshman year and regularly thereafter.

A normal semester course load is 15 to 16 credit hours. Students who are weak academically must plan either to attend summer school or to extend their program to more than four years. No student may register for more than 19 hours without consent of the dean and no student on probation may register for more than 13 hours. Students in the College should use discretion in registering for more than 17 hours as this would be above the normal load. New freshmen are advised not to register for more than 16 hours unless they have received advanced math placement. Students employed off campus for more than 15 hours a week should consider their academic potential before attempting normal academic loads.

Electives

Free electives and science electives should be chosen with great care so that they complement the major program in a positive way. Duplication of subject matter is to be avoided. Credit will not be given for courses that cover subject matter similar to that in a course for which the student has previously earned credit. Specific examples of overlapping subject matter are found among statistics and computer-oriented courses offered by different departments and among some physics, mathematics, and engineering courses. Care should be taken when electing courses from these areas, and an adviser should be consulted.

All free electives, science electives, and courses submitted to fulfill the general degree requirements must be approved by the student's major department and by the College of Sciences. A wide variety of courses is available to meet these requirements. However, the student should be aware that different departments have different regulations as to what is and what is not acceptable for a degree. No student in the College of Sciences may use Physics 1001, 1002, 1003, 1004, Chemistry 1012, 1020 or any mathematics course below the 2000 level as an

elective, unless otherwise stated in a particular curriculum. Courses in certain areas such as academic orientation, chorus, band, health and physical education, military science, engineering drawing, nursing, religion, home economics, agriculture, paralegal studies, office administration, and books and libraries may be accepted as unrestricted electives up to a total of six hours degree credit. If a student feels that more than six hours from any one or a combination of these areas are justifiable within the program, then he or she may present the case to the College for review. In presenting the case the student must demonstrate that the courses are relevant to his or her educational goals. The request to take additional hours in these areas should be made as early as possible in the student's academic career and must be made before registration for the last 30 hours.

If a student's curriculum does not specify the level of required science electives, they must be chosen from courses numbered above 2000. An adviser should be consulted to clarify the conditions existing in different departments.

Louisiana Universities Marine Consortium

The Louisiana Universities Marine Consortium (LUMCON) is an organization of the public universities in the state (including the University of New Orleans). LUMCON was chartered in 1979 to develop coordinated marine research and education within the state university system and provide coastal facilities for these programs.

LUMCON's principal facility is the Universities Marine Center at Cocodrie. The Center consists of a 50,000 square foot laboratory-dormitory complex, 95 foot and 55 foot research vessels, numerous small vessels and collecting equipment, and docking and service facilities for all the vessels. Satellite facilities with laboratories, accommodations, and small boats are operational at Port Fourchon and at Fearman Bayou. The Port Fourchon Laboratory provides ready access to salt and brackish marshes, the bays and bayous of the Timbalier and Barataria Bay systems, beaches, and the Gulf of Mexico, while the Fearman Bayou Laboratory provides access to a wildlife refuge on Vermillion Bay, brackish and fresh water marshes, and coastal cheniers.

College courses in the marine sciences offered at all three facilities emphasize extensive field experience and studies of living organisms in their natural habitat and in the laboratory. Enrollment in each course may be limited by space and accommodations available at a particular laboratory, but applicants from member institutions of LUMCON will be given priority. Students enrolled at UNO will register for LUMCON courses through UNO and will pay tuition based on the UNO fee schedule. Credit for such courses will be awarded by UNO and will be recorded on student transcripts. For details of marine science courses to be offered at LUMCON facilities, see course offerings in Biological Sciences and consult the Chairs of the Departments of Biological Sciences and Earth and Environmental Sciences and Geophysics.

Major Programs

Formal curricula are presented below to guide the student in preparing to enter, or in pursuing, a program in the College of Sciences.

CURRICULUM IN BIOLOGICAL SCIENCES

This curriculum, which leads to the bachelor of science degree, requires 128 hours of course work as described below. All University, College of Sciences, and departmental requirements must be met. This curriculum will allow students the flexibility to pursue a variety of program specializations. Information on these specializations and on career opportunities in the biological sciences is available in a Career Guidance Brochure that can be obtained in the Biological Sciences departmental office. Students are encouraged to take calculus as an elective, especially those planning to attend graduate school.

Biological Sciences majors must earn a grade of C or better in all mathematics and science courses presented to satisfy departmental degree requirements in the curriculum. Each student must complete Biological Sciences 1073, 1071, 1083, 1081, 2014, 2114, 3091, and 4010 as well as a minimum of 23 hours of credit in biological sciences electives. A maximum of four credit hours of 2000-level biological sciences courses may be taken for biological sciences elective credit. Additional 2000-level courses may be taken for elective credit. A maximum of six credit hours of research courses (Biological Sciences 2002, 2092, 3092, and 4091) may be taken for biological sciences elective credit. Additional hours of research courses may be taken for elective credit. A student must take at least five biological sciences elective lecture (or combined lecture/laboratory) courses at the 3000/4000-level. These courses are designated as belonging to either of two groups of electives, Group I or Group II: Group I electives include the disciplines of molecular, cellular, biochemical, physiological, and structural biology. They are identified by the second digit of the course number and include the numbers 1, 2, 3, 4, and 7. Group II electives include the disciplines of organismic, ecological, evolutionary, and systematic biology. They are also identified by the second digit of the course number and include the numbers 5, 6, 8, and 9. The five electives from Groups I and II must meet the following guidelines:

1. at least two courses must be taken from each group,
2. at least one course in each group must include a laboratory, and
3. at least two courses must be at the 4000 level.

Biological Sciences 3453, 3854, 4003, and 4713 may be included in either group, but not both. Certain courses are explicitly excluded from selection as Biological Sciences electives but may be taken as electives. Students must take the Department of Biological Sciences' Comprehensive Exam during their last semester and submit scores from a standardized national exam (e.g., Biology Subject Exam, MCAT, DAT) to the Department of Biological Sciences prior to graduation. Students should be aware of application deadlines for their chosen exam.

Department of Biological Sciences

Course Requirements	Cr. Hrs.
Biological Sciences 1073, 1071, 1083, 1081	8
Biological Sciences 2014, 2114	8
Biological Sciences 3091, 4010	1
Biological Sciences electives	23
Total	40

College of Sciences

Course Requirements	Cr. Hrs.
Chemistry 1017, 1018, 1028, 2026	11
Chemistry 2217, 2218	6
Mathematics 1125, 1126[1]	6
Mathematics 2314	3
Physics 1031, 1032, 1033, 1034[1]	8
Total	34

Non-College of Sciences

Course Requirements	Cr. Hrs.
English 1157, 1158	6
Literature	6
Foreign Language[2]	6
Arts[3]	3
Social Sciences	6
Humanities/Social Sciences (2000 level or above)	6
Total	33
Approved Electives	**Cr. Hrs.**
Total	21
Grand Total	128

[1] Majors sequences may be substituted for the indicated courses. For example, Mathematics 2111, 2112 may be substituted for Mathematics 1125, 1126; Physics 1061, 1062, 1063, 1065 for Physics 1031, 1032, 1033, 1034.

[2] Completion of six credit hours in one foreign language is required.

[3] Arts courses must be selected from fine arts, drama, or music.

Minor in Biological Sciences

Departmental and course prerequisites must be observed. Biological Sciences electives may not be chosen from courses designed for non-majors only. Students must achieve a minimal grade point average of 2.0 in at least 19 credit hours of Biological Sciences courses as specified below:

Biological Sciences 1073, 1083, 1071, and 1081 – 8 hours, Biological Sciences electives (2000 level or higher, with a maximum of three hours of research courses) – 11 hrs. In the case of transfer students, a minimum of nine credit hours must be earned in Biological Sciences at UNO.

Honors in Biological Sciences

An honors program is available to students enrolled in the biological sciences curriculum. To be admitted to the program a student must have completed Biological Sciences 2014 and 2114, while achieving minimal grade point averages of 3.25 overall and 3.5 in biological sciences. In order to graduate with *Honors in Biological Sciences* the student must complete the curriculum with the minimum grade point averages required for admission to the program, complete six credit hours in biological sciences honors courses, earn six additional credit hours in Biological Sciences 4091, and defend a written honors thesis before a committee composed of the faculty research director, another faculty member appointed by the chairman, and a representative of the Honors Program.

CURRICULA IN CHEMISTRY

A grade of C or better is required in each science and math course offered for degree credit for both the Bachelor of Arts and Bachelor of Science in Chemistry.

Bachelor of Science

Department of Chemistry

Course Requirements[1]	Cr. Hrs.
Chemistry 1017, 1018, 1028	9
Chemistry 2025, 2026, 2117, 2217, 2218	14
Chemistry 3027, 3411, 4310, 4311, 4028	17
Chemistry 4030, 4110, 4210, 4410, 4510[2]	15
Total	55

College of Sciences

Course Requirements	Cr. Hrs.
Mathematics 2111, 2112[3], 2221	13
Mathematics[4]	3
Physics 1061, 1062, 1063, 1065, 2064	11
Computer Science 1201, 1203, or 1205	3
Biology	3
Total	33

Non-College of Sciences

Course Requirements	Cr. Hrs.
English 1157, 1158	6
Literature	6
Social Sciences	6
Humanities	3
Humanities/Social Sciences (6 hours at 2000 level or above)	9
Arts[5]	3
Total	33
Electives	**Cr. Hrs.**
Approved Total	7
Grand Total	128

[1] Required chemistry lecture courses at or above the level of 2000 that are transferred from other institutions must be validated by examination in order to count for degree credit in chemistry. Students transferring credit for Chemistry 2217 may validate it by successfully passing Chemistry 2218.

[2] Biological Sciences 3104 may substitute for Chemistry 4510.

[3] Mathematics 1125 and 1126 are prerequisites for Mathematics 2111 and must be elected if placement tests indicate. Mathematics 1125 and 1126 do not count as hours toward a B.S. degree in chemistry.

[4] Departmental approval required for mathematics elective.

[5] Arts courses must be selected from fine arts, drama, or music.

Bachelor of Arts

Department of Chemistry

Course Requirements[1]	Cr. Hrs.
Chemistry 1017, 1018, 1028	9
Chemistry 2025, 2026, 2117	8
Chemistry 2217, 2218, 3411, 4317[2]	12
Chemistry electives[3]	3
Total	32

College of Sciences

Course Requirements	Cr. Hrs.
Mathematics 1125, 1126[4], 2111	11
Biology	3
Physics 1031, 1032, 1033, 1034[5]	8
Computer Science 1201, 1203, or 1205	3
Science or Chemistry electives[6,7]	14
Total	39

Non-College of Sciences

Course Requirements	Cr. Hrs.
English 1157, 1158	6
Literature	6
Social Sciences	6
Humanities	3
Arts	3
Humanities/Social Sciences (6 hours at 2000 level or above)	9
Total	33
Electives	**Cr. Hrs.**
Approved[7,8]	24
Total	24
Grand Total	128

[1] Required chemistry lecture courses at or above the level of 2000 that are transferred from other institutions must be validated by examination in order to count for degree credit in chemistry. Students transferring credit for Chemistry 2217 may validate it by successfully passing Chemistry 2218.

[2] Chemistry 4311 may be substituted for Chemistry 4317.

[3] Chemistry electives can be chosen from the following list: Chemistry 4028, 4030, 4110, 4210, 4310, 4410, and 4510[9]. Chemistry 3094 and 3099 may be used to satisfy the science-elective requirement, but not in place of the required advanced chemistry elective.

[4] Mathematics 1125 and 1126 are prerequisites for Mathematics 2111 and must be elected if placement test indicates. Mathematics 1125 and 1126 may count as hours toward a Bachelor of Arts degree in chemistry. Direct placement in 2111 can lead to bypass credit for 1125 and 1126.

[5] Physics 1031, 1032 may be used as prerequisites for Chemistry 4310 in the B.A. program only.

[6] Six hours of science electives may be taken at the 1000 level. Nine hours of science electives must be selected from courses numbered 3000 or above. The following courses cannot be used to fulfill the science-elective requirement: Biology 4083, 4093; Earth and Environmental Sciences 4005, 4006; Mathematics 4010, 4020, 4030; Physics 4004, 4091.

[7] All electives must be approved by the department. The departmental adviser is available to assist students in planning coursework for the various options.

[8] B.A. candidates who do not take Chemistry 4028 or 4030 to satisfy the University's oral communication requirement must take Film, Theatre and Communication Arts 2650.

[9] Biological Sciences 3104 may substitute for Chemistry 4510.

Before registration for the junior year, the student and his or her adviser will develop a written program of study to accomplish the student's career or pre-professional school objectives. Such a program will prepare the student to pursue a variety of options. Possibilities for interdisciplinary areas are geochemistry, chemical physics, clinical chemistry, chemical sales and management. Preparation for professional schools of medicine, dentistry, business, law, and library science are other possibilities. Programs can be designed to assist those students seeking employment in such fields as food and drug inspection, sales of scientific instruments for chemical research and quality control, scientific journalism and advertising, and other similarly related careers.

Minor in Chemistry

An undergraduate minor in chemistry may be obtained by completing 21 credit hours in chemistry with a grade of C or better in each course. Twelve of the hours shall be at the 2000-level or higher. All students who minor in chemistry must take Chemistry 1028. At least nine hours must be completed at UNO.

Honors in Chemistry

An honors program is available to chemistry majors. Successful completion of the program will result in graduation with *Honors in Chemistry*. To be eligible for admission to the program, a student must have a 3.25 overall average and a 3.5 in chemistry. To remain in the program a student must maintain these averages. Before graduation, a student must complete at least six credit hours of Chemistry 3099, including an oral defense of the honors thesis to a committee composed of a faculty thesis director, another faculty member selected by the chairman, and a representative of the Honors Program.

CURRICULUM IN COMPUTER SCIENCE

UNO's computer science program is accredited by the Computing Accreditation Commission of the Accreditation Board for Engineering and Technology (CAC/ABET). To earn a Bachelor of Science Degree in Computer Science, a student must acquire 128 credit hours as described below, and must satisfy all of the requirements of the University and the College of Sciences. In addition, the following stipulations must be satisfied:

1. Before enrolling in a computer science course, a student must have earned a grade of C or better in all computer science courses which are a prerequisite for it. A grade of C or better must be earned in all science courses, including mathematics and computer science, used to satisfy degree requirements.
2. Computer science electives must be chosen from computer science courses numbered 3000 or above. Computer Science

3601, 3611, and 4690 may not be taken for computer science elective credit.

3. Mathematics electives must have a prerequisite of at least Mathematics 2109 or 2112.
4. The science sequence must be one of: Biology 1073, 1071, 1083, and 1081; or Biology 1073, 1071, and 2014; or Biology 1083, 1081, and 2114; or Chemistry 1017, 1018, and 1023; or Earth and Environmental Sciences 1001, 1003, 1002, 1004; or Physics 1061, 1063, 1062, 1065. (In some cases, comparable courses intended for respective majors may also be acceptable.) Science electives must be in biology, chemistry, Earth and Environmental Sciences, or physics, and must include at least three hours in a science other than that of the science sequence. The University requires each student to complete three hours of biology; this requirement may be met through the science sequence, science electives, or free electives.
5. Foreign language electives must include a six-hour sequence.
6. English electives and three additional hours in humanities or social sciences must be above the freshman level. The College and the University require that six of these hours be in literature.
7. A computer science proficiency exam administered by the department must be passed by the student by the final semester of studies.

Mathematics 2107, 2108, and 2109 may be substituted for Mathematics 2111 and 2112. Entering freshmen not qualifying for Mathematics 1126 must take Mathematics 1125; these courses may be counted toward degree credit.

Department of Computer Science

Course Requirements	**Cr. Hrs.**
Computer Science 1581, 1583	4
Computer Science 2120, 2121, 2125, 2450, 2467	13
Computer Science 3102, 3301, 4311, 4401, 4501	15
Computer Science 3080, 3090	2
Computer Science electives	9
Total	43

College of Sciences

Course Requirements	**Cr. Hrs.**
Mathematics 1126, 2111, 2112	13
Mathematics 2314, 2721	6
Mathematics electives	6
Science sequence	8
Science electives	6
Total	39

Non-College of Sciences

Course Requirements	**Cr. Hrs.**
English 1157, 1158, 2152	9
English Literature	6
Humanities or Social Sciences	3
Foreign Language	6
Social Sciences	6
Arts	3
Total	33

Approved Electives	**Cr. Hrs.**
Total	13
Grand Total	128

Concentration in Information Assurance

The Department offers a declared concentration in Information Assurance. Students who opt for this concentration are required to fulfill the following requirements:

1. Completion of the following two courses: Computer Science 4621 and 4623;
2. Completion of one "project-oriented" elective course. The following courses may be chosen for this requirement. Computer Science 4208, 4402, 4460, or 4620. Other courses may be substituted upon approval by the Department;
3. Completion of one non-technical elective course. The following courses may be chosen for this requirement: Mathematics 4360 (Mathematical Information Theory), Management 4407 (Management of Technology and Innovation), or Political Science 4410 (American Constitutional Law). Other courses may be substituted upon approval by the Department.

Minor in Computer Science

An undergraduate majoring in a department other than Computer Science may earn a minor in Computer Science by completing the following computer science courses each with a grade of C or better: Computer Science 1581, 1583, 2120, 2121, 2125, 2450, 3301, and one three credit 4000-level course selected from an approved list. (It should be noted that Mathematics 2721 is a prerequisite for Computer Science 2125.) A transfer student must complete a minimum of nine credit hours in required computer science courses at UNO, and these must include Computer Science 2125 and a three credit 4000-level course from the approved list.

Honors in Computer Science

An honors program is available to Computer Science majors. Successful completion of the program will result in graduation with *Honors in Computer Science*. To be eligible for admission to the program, a student must complete Computer Science 2125 and must have a faculty member willing to serve as thesis advisor. The student must also have an overall average of 3.25 or better and an average of 3.5 or better in Computer Science courses. In order to remain in the program, a student must maintain these averages.

In order to complete the program a student must do the following:

1. fulfill all graduation requirements for the Bachelor of Science in Computer Science;
2. have an overall average of 3.25 or better and an average of 3.5 or better in computer science courses;
3. earn six credits in Computer Science 3099;
4. produce a written honors thesis and conduct an oral defense before a committee consisting of the faculty thesis advisor, at least one other faculty member selected by the department chairman, and a representative of the Honors Program.

CURRICULUM IN ENVIRONMENTAL SCIENCE AND POLICY

The Environmental Science and Policy program at the University of New Orleans seeks to train persons in the basic principles of business management, environmental sciences, and environmental technology. Rather than being primarily a specialist in science, engineering, or business management, graduates will have a sound knowledge of all these areas and be able to interact with specialists and to coordinate the skills of the specialists in achieving regulatory compliance, solving environmental problems, minimizing public and corporate risk, and generally addressing the broad range of environmental concerns which affect businesses, governmental agencies, and the general public. Persons successfully completing the program will be awarded the Bachelor of Science degree.

All students in the curriculum must complete a minimum of 125 credits in courses from the following core areas:

- General Degree Core (46cr.)
- Environmental Science and Policy Core (34cr.)
- Business and Economics Core (15cr.) a selection of approved courses in economics and management
- Science Core (15cr.) a concentration of approved courses in either biology or Earth and Environmental Sciences
- Elective Core (15cr.) a selection of approved courses from one of the following areas: science and technology, geography, management, urban and regional planning/environmental sociology, the concentration area not selected to fulfill the Science Core; or a combination of courses from among the elective areas.

Courses in the General Degree and Environmental Science and Policy cores are listed below. A list of approved courses for the business and economics, science, and elective core areas is available from the program coordinator. Substitution for core area courses may be allowed upon approval of the program steering committee. Students are responsible for ensuring that all prerequisites are met before enrolling in courses.

College of Business Administration

Course Requirements	**Cr. Hrs.**
Accounting 2100	3
Business Administration 2780	3
Economics 1203	3
Management 3401	3
Business and Economics Electives	15
Total	27

College of Liberal Arts

Course Requirements	**Cr. Hrs.**
Drama, Fine Arts, or Music	3
English 1157, 1158	6
English 2000-level	6
English 2152	3
Geography 2801	3
Philosophy 4205 or History 2000	3
Sociology 1051, 2871	6
Total	30

College of Sciences

Course Requirements	**Cr. Hrs.**
Biological Sciences 1071, 1073, 2014	8
Chemistry 1017, 1018, 1028	9
Environmental Science and Policy 1100, 2100, 3100, 3300, 4100	15
Mathematics 1125, 1126 or 2107, 2108	6
Science Electives	15
Total	53

Electives	**Cr. Hrs.**
Total	15
Grand Total	125

Minor in Environmental Science and Policy

An undergraduate majoring in another subject area may minor in environmental science and policy by completing 21 credit hours in environmentally related courses with a grade of C or better in each course. At least 12 credit hours must be 2000-level or above, and at least nine hours must have been completed at UNO. Courses applied towards the minor must be approved by the program coordinator and must include Environmental Science and Policy 1100, 2100, and 3100.

CURRICULUM IN EARTH AND ENVIRONMENTAL SCIENCES

To earn a Bachelor of Science degree in Earth and Environmental Sciences, a student must receive credit for 128 hours of coursework including the core courses listed below plus the required and elective courses for one of the four CONCENTRATIONS: Earth and Environmental Sciences, coastal science and restoration, petroleum Earth and Environmental Sciences, and environmental science and policy. The curriculum allows students flexibility to pursue a variety of specialties for career opportunities in Earth and Environmental Sciences, environmental science, oil and gas exploration, coastal studies or specializations aimed at graduate study. Specific required and elective course information on the four concentrations can be obtained from the departmental office. Career opportunities and the graduate program information can be found there also.

Department of Earth and Environmental Sciences (EES)

Course Requirements	**Cr. Hrs.**
EES 1000, 1001, 1002, 1003, 1004, 1005, 1010	14
EES 2000, 2010, 2050	9
EES 4000, 4099	5
Total	28

College of Sciences

Course Requirements	**Cr. Hrs.**
CHEM 1017	3
MATH 1125, 1126 or* 2107, 2108, 2109	6 or 9
BIOS 1073, 1071	4
PHYS 1031 or* 1061	3
Total	16 or 19

6 hours from the following courses must complete an 8 hour lab/lecture sequence in either biology, chemistry, or physics:
BIOS 1083, 1081

CHEM 1018, 1028
PHYS 1032, 1033, 1034 or* 1062, 1063, 1064
*depending on the specific CONCENTRATION

Non-College of Sciences

Course Requirements	Cr. Hrs.
ENGL 1157, 1158 (C or better required)	6
Literature	6
Social Sciences	6
Arts	3
Humanities	3
Humanities or Social Science	9
Total	33

A grade of C or better must be earned in all of the required and elective EES or sciences courses.

Minor in Earth and Environmental Sciences

An undergraduate majoring in another subject may minor in earth and environmental sciences by completing 20 credit hours in EES with a grade of C or better in each EES course taken. The courses must include EES 1000, 1001, and EES 1002 and 1003, and EES 1004 and 1005. At least 12 credit hours must be 2000-level or above and at least nine hours must have been taken at UNO.

Honors in Earth and Environmental Sciences

An honors program is available to EES majors. Successful completion of the program will result in graduation with Honors in Earth and Environmental Sciences. To be eligible for admission to the program, a student must have a 3.25 overall grade average and a 3.5 in EES courses. To remain in the program, a student must maintain these averages. Before graduation a student must have completed at least six hours of EES 3099, including an oral defense of the honors thesis before a committee of the faculty.

CURRICULUM IN MATHEMATICS

The Department of Mathematics offers the Bachelor of Science degree. To earn a baccalaureate degree in mathematics, a student must satisfy all requirements of the University and of the College of Sciences, as well as those of the program described below. In addition, every major in mathematics must:

1. take at least 18 hours of mathematics numbered 3000 or above;
2. earn a grade of C or better in each mathematics course used to satisfy the minimum mathematical requirement of the curriculum;
3. take a six-hour sequence in one language in partial fulfillment of the College of Sciences humanities requirement (French, German, or Russian is recommended for students planning graduate studies);
4. successfully complete the requirements of one concentration area, which shall consist of 12 hours of courses numbered 2000 or above in mathematics or in related fields, chosen with the approval of the Department of Mathematics. A grade of C or better must be earned in each course. The student may choose to concentrate in applied mathematics, computer science, statistics, geophysics, physical science, economics, etc.
5. choose at least three hours of science electives in biology, if biology is not taken as the freshman lab science;
6. take at least six hours at or above the 2000-level in arts, humanities, or social sciences.
7. take Mathematics 3900

Since good interdisciplinary programs require early, careful planning and may require starting a sequence in the sophomore year, the student should select a concentration area as early as possible.

Either sequence, Mathematics 2107, 2108, 2109 or Mathematics 2111, 2112, may be used to complete the first 10 hours of calculus. All courses taken must be approved by a departmental adviser.

Students not adequately prepared to enter a calculus sequence must take appropriate pre-calculus courses without credit toward graduation. Departmental placement determines the point of admission to these courses.

Bachelor of Science Degree

The 12 hours of sciences (which includes engineering) must include at least six hours in one subject, and at least six hours must be in courses numbered 2000 or above. Certain science courses are not permitted for degree credit by the College of Sciences.

Concentrations may be primarily in a special area of mathematics or can be designed to provide interdisciplinary education in an allied field emphasizing quantitative methods.

Department of Mathematics

Course Requirements	Cr. Hrs.
Mathematics 2107, 2108, 2109 or 2111, 2112	10
Mathematics 2115, 2511, 2221	9
Mathematics 3512, 4101, 4102	9
Mathematics electives	9
Total	37

College of Sciences

Course Requirements	Cr. Hrs.
Chemistry 1017, 1018, 1023 or Biological Sciences 1071, 1073, 1081, 1083 or Earth and Environmental Sciences 1001, 1002, 1003, 1004	8
Physics 1061, 1062, 1063, 1065	8
Computer Science 1060, 1201, or 1581 and 1583	3-4
Science electives	12
Total	31

Non-College of Sciences

Course Requirements	Cr. Hrs.
English 1157, 1158	6
Literature	6
Humanities or Social Sciences	6
Social Sciences	6
Foreign Language 1001, 1002 or 1011, 1012	6
Arts	3
Total	33
Concentration Course Requirements	**Cr. Hrs.**
Concentration area	12
Approved Electives	15
Grand Total	128

Honors in Mathematics

An honors program is available to mathematics majors. Successful completion of the program will result in graduation with *Honors in Mathematics*. To be eligible for admission to the program a student must have a 3.25 overall average and a 3.5 in mathematics (including an average of 3.5 in mathematics courses numbered 2000 or above). To remain in the program the student must maintain these averages. Before graduation, the student must complete Mathematics 4411 and six credit hours of Mathematics 3099, including an oral defense of the honors thesis to a committee composed of the faculty thesis director, another faculty member chosen by the departmental chairman, and a representative of the Honors Program.

Minor in Mathematics

An undergraduate minor in mathematics may be obtained by completing at least 25 credit hours in mathematics with a grade of C or better. These 25 hours must include Mathematics 2111, 2112 (or 2107, 2108, 2109), 2115, 2511, 2221, 3512, and three credit hours of mathematics at the 4000 level. At least six credit hours at or above the 3000 level must be taken at UNO.

Minor in Statistics

An undergraduate minor in statistics may be earned by completing 25 credit hours in mathematics which includes Mathematics 4301, 4304, and either 4311 and 4312, or 4371 and 4372, with a grade of C or better in each course. At least six credit hours at the 4000 level must be taken at UNO.

Students preparing for the Actuarial Exam 110 should take Mathematics 4311, 4312 and for the Actuarial Exams 120 and 121 should take Mathematics 4301 and 4304. These mathematics courses also provide the statistical foundation for other Actuarial Exams.

Minor in Applied Mathematics

An undergraduate minor in applied mathematics may be obtained by completing at least 25 credit hours in mathematics with a grade of C or better. These 25 hours must include Mathematics 2111, 2112 (or 2107, 2108, 2109), 2115, 2221, 2511, and six credit hours at UNO selected from the following list of courses: 4213, 4221, 4224, 4230, 4251, 4252, 4260, 4280, 4271.

CURRICULUM IN PHYSICS

The curriculum leading to the Bachelor of Science degree in physics consists of a core sequence containing basic physics, mathematics, and general degree requirements. Students who wish to prepare themselves for an interdisciplinary career should choose an appropriate minor. For degree credit, a grade of C or better must be earned in all physics courses.

PHYSICS CORE
Bachelor of Science Degree

Department of Physics

Course Requirements	**Cr. Hrs.**
Physics 1061, 1062, 1063, 1065[1]	8
Physics 2064, 3198, 3301	7
Physics 4150, 4160, 4401, 4501, 4601	15
Physics electives[2]	14
Total	44

College of Sciences

Course Requirements	**Cr. Hrs.**
Mathematics 2107, 2108, 2109 or 2111, 2112	10
Mathematics 2115, 2221	6
Chemistry 1017, 1018, 1023	8
Computer Science 1201 or 1581 and 1583	3-4
Biological Sciences	3
Mathematics or mathematical physics	3
Total	33

Non-College of Sciences

Course Requirements	**Cr. Hrs.**
English 1157, 1158, 2152	9
Literature [3]	6
Arts, Humanities, Social Sciences[3]	18
Total	33

Approved Electives	**Cr. Hrs.**
Total	17-18
Grand Total	128

[1] Physics 1031, 1032, 1033, and 1034 may be substituted with consent of the department.

[2] Six of the unspecified physics credit hours must be chosen from Physics 4302, 4402, and 4503. Students who intend to pursue graduate studies in physics are strongly advised to schedule all three of those courses as well as Physics 4201.

[3] Literature, art, humanities, and social sciences must be chosen to satisfy University and College of Sciences degree requirements.

Minor in Physics

An undergraduate minor in physics may be obtained by completing 18 credit hours in physics with a grade of C or better in each course. These 18 credit hours will consist of Physics 1061, 1062, 1063, 1065 (or 1031, 1032, 1033, 1034), 2064, 3198, 3301, and 4501 or departmentally-approved alternatives. The last nine hours must be taken at UNO.

Honors in Physics

An honors program is available to superior students. Successful completion of the program results in graduation with Honors in Physics. For admission to the program a student must be enrolled in or have completed Physics 3198 and 4194 and have grade point averages of at least 3.2 overall and in all science courses taken, and at least 3.5 in all physics courses taken. Before graduation the student must complete six hours of Senior Honors Thesis (Physics 4194), present an acceptable honors thesis, and obtain an honors-level grade on a thesis-defense examination.

CURRICULUM IN PSYCHOLOGY

The Psychology Department offers a Bachelor of Science in Psychology. Students must complete 39 hours with a grade of C or better in each course in their major; at least 15 of these hours must be earned at UNO. In addition, a grade of C or better is required in each science and math course taken for degree credit.

Bachelor of Science

Department of Psychology

Course Requirements	Cr. Hrs.
Psychology 1000, 1310, 2300	9
Psychology 4010	3
Psychology electives[1]	27
Total	39

College of Sciences

Course Requirements	Cr. Hrs.
Mathematics 1115, 1116 or 1125, 1126, or 2111	5-6
Science sequence[2]	8
Science electives[3]	8
Computer Science 1000[4]	3
Total	24-25

Non-College of Sciences

Course Requirements	Cr. Hrs.
English 1157, 1158	6
English Literature	6
Modern Foreign Language	6
Arts	3
Humanities	3
Social Sciences[5]	12
Total	36
Approved Electives	**Cr. Hrs.**
Total	22-23
Grand Total	122

[1] Elective hours of Psychology must include six courses, meeting the following criteria: at least one course from each group; three additional courses chosen from at least two different groups; and at least three of the six courses must be at the 4000 level.

1. Psychology 2110, 2120, 2130, 2200, 4100, 4600
2. Psychology 2380, 2400, 4310, 4510, 4530, 4550, 4700
3. Psychology 2320, 2340, 4320, 4330, 4340, 4350, 4365

[2] This constitutes a college degree requirement and students must choose among Biological Sciences 1071, 1073, 1081, and 1083; Chemistry 1017, 1018, and 1023; Physics 1031, 1032, 1033, and 1034; Physics 1061, 1062, 1063 and 1065. Biological Sciences sequence is recommended.

[3] Students may not choose Biological Sciences 1051, 1053, 1061, 1063; Chemistry 1012, and 1020; Computer Science 1000; Physics 1001, 1002, 1003, 1004, 1005, 1006, 1007, and 1008. Students must choose at least three hours from Biological Sciences and at least three hours from Chemistry, Earth and Environmental Sciences, or Physics to meet this and the College of Sciences Degree Requirement. Mathematics 1140 may be used as a science elective.

[4] Students may substitute Computer Science 1060, 1201, or 1581 and 1583; doing so reduces the total science elective credit by three hours and increases the electives credit by three hours.

[5] These social science courses must be chosen from outside psychology; six of the 12 hours must be numbered 2000 or above.

Minor in Psychology

For an undergraduate minor in psychology, a minimum of 18 credit hours is required, including Psychology 1000 and at least two 4000-level courses. Note that there are only two 4000 level psychology courses (4510 and 4530) that students may take without having completed Psychology 1310 and 2300, and these two courses may not be offered each semester. For a student transferring from another university, at least nine of the 18 hours must be earned at UNO. A student may not use credit in both Psychology 1500 and 1520 toward the minor. A grade of C or better in psychology courses must be achieved in order to have the minor listed on the student transcript.

Honors in Psychology

An honors program is available to superior students majoring in psychology. Successful completion of the program results in graduation with Honors in Psychology. For admission to the program a student must have grade-point averages of at least 3.25 overall and at least 3.5 in psychology courses and must have permission of the department and the Honors Program director. Before graduation the student must take six hours of Senior Thesis (Psychology 3099), resulting in an acceptable honors thesis.

Pre-Professional Studies

Pre-Medical and Pre-Dental Programs

A student who is interested in medicine or dentistry as a profession should select a degree program which will adequately prepare him or her for entry into professional school yet provide ample opportunity to pursue additional interests in varied academic disciplines. Most schools stress a four-year degree program as the best possible preparation. A student may major in the subject of his or her choice; however, the student and the adviser must be sure that the major program selected either includes those courses required by the medical or dental school or offers sufficient free electives to include 50 or 60 hours of science. The pre-medical/ pre-dental adviser in the College of Sciences should be consulted as soon as possible after the student enters the University, and such consultation is encouraged on a regular basis thereafter.

The following are the required courses for entry into LSU and Tulane medical schools to be included in 90 hours of academic work:

Subject	Cr. Hrs.
Biology 1071, 1073, 1081, 1083	8
Chemistry 1017, 1018, 1028	9
Chemistry 2026, 2217, 2218	8
English 1157, 1158	6
English Elective (Literature)	3
Physics 1031, 1032, 1033, 1034 or 1061, 1062, 1063, 1065	8
Total	42

The following is a curriculum recommended for all pre-medical or pre-dental students for the freshman year. Programs of study in the remaining years will be designed in consultation with an adviser in the student's major department.

Subject	Cr. Hrs.
English 1157, 1158	6
Biological Sciences 1071, 1073, 1081, 1083	8
Chemistry 1017, 1018, 1028	9
Mathematics[1]	6-10
Electives[2]	0-6
Total	39

[1] The mathematics courses must be selected in accordance with the requirements of the student's major field of concentration and placement test scores.

[2] Elective hours must be chosen from courses satisfying the general degree requirements of the University and/or from required courses in the proposed major.

Pre-Pharmacy

UNO offers coursework to prepare a student to apply for admission to the College of Pharmacy at Xavier University in New Orleans or to the College of Pharmacy and Health Sciences at the University of Louisiana at Monroe. Approximately two years of college work in specified areas is required to be eligible for admission to either program. A student interested in pharmacy should consult with the pre-pharmacy adviser during his or her first semester at UNO. Additional information about the pre-pharmacy curriculum may be obtained in the office of the College of Sciences (1100 Science Building).

Pre-Veterinary Medicine

UNO offers coursework to prepare a student to apply for admission to the LSU School of Veterinary Medicine. To be eligible for admission a student must complete a minimum of 66 credit hours of specified college work. A student interested in veterinary medicine should consult with the pre-veterinary adviser during his or her first semester at UNO. Additional information about the pre-veterinary medicine curriculum may be obtained in the office of the College of Sciences (1100 Science Building).

Pre-Allied Health Programs

A student planning to enter any of the following programs should contact the appropriate institution during his or her first semester at UNO for detailed information concerning admission. A list of the addresses of these institutions is available in the office of the College of Sciences (1100 Science Building). Since all programs involve competitive admission and each division or school determines its own requirements, completion of the courses listed below is no guarantee of admission. Since admission requirements for these programs change frequently, students should obtain updated advising checklists from the College of Sciences office. Upon completion of the degree requirements for any of these programs, the institution itself, not UNO, awards the degree.

Pre-Allied Dental Fields

Allied dental fields include Dental Hygiene and Dental Laboratory Technology. A student planning to enter either of these two programs should contact the Office of Student Affairs at the LSU School of Dentistry during his or her first semester at UNO for detailed information about the programs including admission requirements. Both programs involve competitive admission with each program determining its own admission requirements. Upon completion of the degree requirements for either of the programs, the institution itself, not UNO, awards the degree. A student interested in a degree in either program should contact the respective program coordinator at LSU School of Dentistry or visit the website at http://www.lsuhsc.edu.

Pre-Dental Hygiene — Bachelor of Science Degree

College of Sciences

Course Requirements	Cr. Hrs.
Biological Sciences 1071, 1073, 1081, 1083	8
Biological Sciences 1301, 1303, 2744	8
Chemistry 1017, 1018	6
Computer Science 1000 or above	3
Mathematics 1115, 1116	6
Psychology 1000	3
Total	34

Non-College of Sciences

Course Requirements	Cr. Hrs.
English 1157, 1158	6
English Literature	3
Film, Theatre and Communication Arts 2650	3
Sociology 1051	3
Humanities electives[1]	9
Arts elective	3
Total	27
Grand Total	61

[1] Three hours must be 2000 level or above. May include literature, foreign language, philosophy, speech, history, religious studies.

Pre-Dental Laboratory Technology — Associate of Science Degree[1]

Course Requirements	Cr. Hrs.
Chemistry 1017	3
Mathematics 1115, 1116[2]	6
English 1157, 1158	6
Sociology 1051	3
Humanities	3
Natural Science (Lecture Only)	3
Arts Elective	3
Total	27

[1] For more information about the Bachelor of Science degree, students should contact the LSU School of Dentistry or visit the website at http://www.lsuhsc.edu.

[2] The required six hours mathematics credit cannot be from courses lower than college-level algebra.

PRE-CLINICAL LABORATORY SCIENCES CURRICULUM

UNO offers the prerequisite courses designed to prepare students for admission to the Department of Clinical Laboratory Sciences, LSU Health Sciences Center. The minimum grade-point average for admission to the program is a 2.5 average (uncorrected) on all college work taken prior to the date of application. A grade of C or better is required in each prerequisite course. Admission is on a competitive basis. Students who successfully complete all requirements will earn a Bachelor of Science in Medical Technology awarded by the Louisiana State University Health Sciences Center.

College of Sciences

Course Requirements	**Cr. Hrs.**
Biological Sciences 1071, 1073, 1081, 1083, 2744	12
Chemistry 1017, 1018, 1023	8
Chemistry 2217	3
Mathematics 1115, 1116[1], or 1125, 1126[1]	6
Science Electives[2]	3
Total	32

Non-College of Sciences

Course Requirements	**Cr. Hrs.**
English 1157, 1158	6
English (2000 level or above)	3
Arts Elective	3
Humanities[3]	9
Social Sciences	6
Total	27

Approved Electives	**Cr. Hrs.**
Total	12
Grand Total	71

[1] Students may substitute MATH 2314 for MATH 1116 or 1126.

[2] Upper level biology or chemistry course recommended.

[3] Humanities electives must be chosen from those subjects designated as humanities in the LSUHSC catalog. At least three hours must be 2000 level or above.

PRE-OCCUPATIONAL THERAPY CURRICULUM

UNO offers the prerequisite courses designed to prepare the student for admission into the Master of Occupational Therapy (MOT) degree program, Department of Occupational Therapy, School of Allied Health Professions, LSU Health Sciences Center. To be eligible for admission, the student must complete a bachelor's degree (in any field) and must have met the prerequisites listed below.

College of Sciences

Course Requirements	**Cr. Hrs.**
Biological Sciences 1301, 1303, 1313, 1311	8
Chemistry 1017	3
Physics 1031, 1033	4
Mathematics 1115, 1116 or 1125, 1126	6
Statistics (Mathematics 2314 or Psychology 1310)	3
Psychology 4530	3
Psychology 2110 or 2120 and 2130[1]	6
Total	33

Non-College of Sciences

Course Requirements	**Cr. Hrs.**
Sociology 1051	3
Total	3
Grand Total	36

[1] Psychology of Human Growth and Development (3 credit hours) at Delgado may substitute for this requirement.

PRE-OPHTHALMIC MEDICAL TECHNOLOGY

UNO offers the prerequisite courses designed to prepare students to apply for admission to the Bachelor of Science degree program of the Department of Ophthalmic Medical Technology, School of Allied Health Professions, LSU Health Sciences Center. To be eligible for admission to the program, students must complete the courses listed below. A grade of "C" or better is required in each prerequisite course.

College of Sciences

Course Requirements	**Cr. Hrs.**
Biological Sciences 1301, 1303, 2744	8
Biological Sciences electives[1]	4
Chemistry 1017, 1023	5
Computer Science 1000 (or above)	3
Mathematics 1115, 1116 (or 1140) or 1125, 1126 (or 1140)	6
Mathematics 2314 or Psychology 1310	3
Physics 1031, 1033	4
Psychology 1000	3
Total	36

Non-College of Sciences

Course Requirements	**Cr. Hrs.**
English 1157, 1158	6
Fine Arts (Theory)[2]	3
Humanities[3]	9
Social Sciences[4]	6
Total	24
Grand Total	60

[1] Choose from Biological Sciences 1071, 1073 or 1081, 1083.

[2] May be chosen from fine arts, music, or theater.

[3] Three hours must be 2000 level or above. May include English, foreign language, history, philosophy, speech/communication.

[4] May include anthropology, economics, geography, political science, psychology, sociology.

PRE-PHYSICAL THERAPY CURRICULUM

UNO offers the prerequisite courses designed to prepare the student to apply for admission to the Master of Science Program offered by the Department of Physical Therapy, School of Allied Health Professions, LSU Health Sciences Center. To be eligible for admission, the student must have earned a Bachelor's Degree (in any field of the student's choosing) and must have completed the following specific prerequisites for the program.

College of Sciences
Non-College of Sciences

Course Requirements	Cr. Hrs.
Mathematics 1115, 1116 or 1125, 1126[1]	6
Biological Sciences 1071, 1073, 1081, 1083	8
Biological Sciences 1301, 1303, 1311, 1313	8
Advanced Biology[2]	3
Chemistry 1017, 1018, 1023 or 1028	8-9
Physics 1031, 1032, 1033, 1034	8
Psychology[3]	6
Psychology 1310 or Mathematics 2314[4]	3
Total	50-51

Course Requirements	Cr. Hrs.
English 1157, 1158	6
English 2151 or 2152	3
Film, Theatre and Communication Arts 2650	3
Total	12
Grand Total	62-63

[1] Must be chosen to meet the requirements of the student's major department.

[2] Biological Sciences 2114, 2744, or 3284 recommended.

[3] Psychology 4530 recommended.

[4] Credit in statistics may be used to meet a math requirement if taught in a math department.

PRE-REHABILITATION COUNSELING CURRICULUM

UNO offers college work designed to prepare the student to apply for admission to the Bachelor of Science in Rehabilitation Counseling degree program, Department of Rehabilitation Counseling, School of Allied Health Professions, LSU Health Sciences Center. To be eligible for admission to the program, a student must complete a minimum of 85 semester hours as specified below.

College of Sciences

Course Requirements	Cr. Hrs.
Biological Sciences 1071, 1073, 1081, 1083, 1301, 1303	12
Mathematics 1115, 1116[1]	6
Psychology 1000, 1500	6
Psychology electives[2]	9
Mathematics 2314 or Psychology 1310	3
Total	36

Non-College of Sciences

Course Requirements	Cr. Hrs.
English 1157, 1158	6
English electives (2000 level or above)	6
Film, Theatre and Communication Arts 2650 or 2660	3
Sociology 1051	3
Arts[3]	3
Humanities[4]	6
Social Sciences[5]	9
Total	36

Approved Electives[6]	Cr. Hrs.
Total	13
Grand Total	85

[1] The required six hours mathematics credit cannot be from courses lower than college-level algebra.

[2] Psychology 2110 or 2120, 2130, 2160, 2200, 2300, 2320, 2380, or 2400 recommended.

[3] Must be selected from the following areas: fine arts, music, or theater-related Film, Theatre and Communication Arts.

[4] Humanities electives should be selected from courses in any of the following areas: drama, fine arts, foreign languages, history, music, philosophy, literature, speech, or religion.

[5] Social science electives are to be chosen from anthropology, economics, geography, political science, psychology, sociology, or special education.

[6] Excludes military science, physical education activity courses, and remedial courses.

PRE-CARDIOPULMONARY SCIENCE CURRICULUM

(Respiratory Therapy/Cardiovascular Technology)

This curriculum is designed for students desiring to apply for entry into the professional curricula in Cardiopulmonary Science (Respiratory Therapy/Cardiovascular Technology) offered through the LSU Health Sciences Center. The degree program provides education and training in the areas of prevention, diagnosis, management, and rehabilitation of people with heart and lung disorders. In addition, the baccalaureate therapist and technologist is a potential educator or supervisor in cardiopulmonary departments. To be eligible for admission to the program, a student must complete a minimum of 60 credit hours as specified below.

College of Sciences

Course Requirements	Cr. Hrs.
Biological Sciences 1071, 1073, 1081, 1083, 2744	12
Mathematics 1115, 1116 or 1125, 1126	6
Chemistry 1017, 1018, 1023	8
Computer Science 1000	3
Physics 1031, 1033	4
Psychology 1000	3
Science electives[1]	6
Total	42

Non-College of Sciences

Course Requirements	Cr. Hrs.
English 1157, 1158	6
Humanities[2]	9
Arts[3]	3
Total	18
Grand Total	60

[1] Recommended: Human Anatomy and Physiology, Organic Chemistry.

[2] Recommended: English, Technical Writing, Advanced Composition, Foreign Language.

[3] Must be chosen from fine arts, music, or theater-related Film, Theatre and Communication Arts.

PRE-PHYSICIAN ASSISTANT CURRICULUM

The prerequisites listed below are designed to prepare the student for entry into the Physician Assistant program offered through the LSU Health Sciences Center on the Shreveport campus. Admission into the program is competitive. Applicants must complete the 60 hours of prerequisite courses with a minimum grade point average of 2.75 and must have 80 hours of direct patient health care experience. Students admitted into the program will complete 27 months of academic and clinical experiences designed to prepare physician assistants to provide comprehensive health care to patients under the supervision of a physician. Upon successful completion of the program, students are awarded the Bachelor of Science in Physician Assistant.

College of Sciences

Course Requirements	**Cr. Hrs.**
Biological Sciences 1071, 1073 or 1081, 1083	4
Biological Sciences 1301, 1303	4
Biological Sciences 2744	4
Chemistry 1017, 1018, 1023 (or 1028)	8-9
Computer Science 1000	3
Mathematics 1115, 1116	6
Physics 1031, 1033	4
Psychology 1000	3
Psychology elective	3
Total	39-40

Non-College of Sciences

Course Requirements	**Cr. Hrs.**
English 1157, 1158	6
Art elective[1]	3
Humanities elective[2] (3 hours at the 2000 level or above)	9
Social Sciences elective[3]	3
Total	21
Grand Total	60-61

[1] Must be chosen from music, fine arts, or theater.

[2] Must be chosen from literature, foreign language, philosophy, Film, Theatre and Communication Arts.

[3] Must be chosen from anthropology, economics, geography, political science, psychology, sociology.

Nursing

LSUHSC School of Nursing

UNO cooperates with the Louisiana State University Health Sciences Center (LSUHSC) School of Nursing by offering the general education courses required for the baccalaureate degree program, a four-year program designed to educate the professional nurse. The program, accredited by the National League of Nursing and approved by the Louisiana State Board of Nursing, prepares the student to take the state licensing examination to become a registered nurse.

Admission Requirements for the Baccalaureate Degree Program

Admission to the bachelor of science in nursing program is by competitive application. Minimum requirements are:

1. Satisfaction of the general admission requirements of the LSU System.
2. Achievement of a 2.8 cumulative grade point average on all college work taken. A grade of C or better must be achieved in all prerequisite courses. If less than a C is earned, then the course may be repeated once for credit.
3. Health and personal fitness for the role of professional nurse.
4. Successful completion of an entrance examination.

The Baccalaureate Degree Program admits two classes each year. Deadlines for applications are February 15 for the fall semester and September 1 for the spring semester.

Full information describing the nursing curriculum is contained in the LSUHSC School of Nursing catalog which may be obtained from the LSUHSC Bookstore, 433 Bolivar St., New Orleans, LA 70112-2223. Information is also available on the web site: http://www.lsuhsc.edu.

BACCALAUREATE DEGREE CURRICULUM

Foundation Courses	Cr. Hrs.
Biological Sciences 1081, 1083, 2744	8
Mathematics 1115 or 1125	3
Chemistry 1017	3
Psychology 1000	3
English 1157, 1158	6
Sociology 1051	3
Arts elective[1]	3
Total	29

[1] Must be chosen from fine arts, music, or theater-related drama and communications.

Bachelor of General Studies Degree

The Bachelor of General Studies (BGS), initiated in 1975, is a degree program administered by the Metropolitan College. It is an interdisciplinary program intended to provide versatility for students seeking an individualized learning experience. The BGS program's primary focus is adult learners and part-time students who desire the flexibility of a curriculum designed to balance work and life responsibilities with educational opportunities. The program should not be considered as a substitute for any single-subject major, or a program merely for undecided students. It is best suited for students with clearly defined individual, educational and professional goals that can be best served by a BGS interdisciplinary academic plan. To meet the diverse social, cultural and educational needs of all UNO students, the program continues to develop a comprehensive program utilizing both on-campus and distance learning opportunities.

Specific requirements for the degree are:

1. General Education Component
   a. Completion of English 1156, 1157 and 1158 or 1159 with a grade of C or better (including the English 1158 Proficiency Examination).
   b. Six hours of literature, from any department.
   c. Six hours of mathematics numbered 1000 or above.[1]
   d. Eleven hours of science to include eight hours of one science (two of laboratory) and three hours of another. One of the sciences must be biology and the other one must be chemistry, earth and environmental sciences, or physics.[2]
   e. Twelve semester hours of humanities, to include at least two different subject areas and at least two courses above the freshman level. One of these courses must satisfy the arts requirement.[3]
   f. Twelve semester hours of social sciences, to include at least two different subject areas and at least two courses above the freshman level.[3]
   g. Completion of University computer literacy requirement.[4]
   h. Completion of University oral competency requirement.[5]
2. Interdisciplinary Component: Completion of an interdisciplinary component, representing a clearly defined focus of studies, with a minimum grade point average of 2.25. The component will consist of at least three subjects for a combined total of 36 hours, with at least half (18-credit hours) to be completed after enrolling in the BGS program.
3. All students are required to develop an Individualized Learning Plan (ILP) with guidance from BGS staff. The plan is to be submitted for approval upon completion of, or transfer of, 30 credit hours into the BGS program. Transfer students with more than 30 credit hours earned must complete their plan during their first semester of enrollment in the program. In all cases, the plan must be completed prior to the student's final 30 credit hours of enrollment. Changes to final ILP are subject to BGS staff approval. [5]
4. Single-Subject Limitation: A maximum of 30 hours of course work in any one subject can be counted toward credit for the degree. For this purpose, all course work offered in the College of Business Administration will be regarded as a single subject. The same is true for the College of Education and the College of Engineering.
5. Completion of a minimum of 45 hours of courses numbered 3000 or above, with a grade point average of 2.0 (C) or better.
6. Completion of a minimum of 120 hours of course work in courses numbered 1000 and above, with a grade point average of 2.0 (C) or better.
7. Completion of the last 30 hours of coursework while enrolled in the Bachelor of General Studies degree program.

CURRICULUM IN GENERAL STUDIES

General Education Course Requirements	Cr. Hrs.
English 1156, 1157, 1158 (or 1159)	6
Literature	6
Mathematics[1]	6
Sciences[2]	11
Computer Literacy	3
Humanities[3]	12
Social Sciences[3]	12
Total	56

Degree Specific Requirements	Cr. Hrs.
Individualized Learning Plan (ILP) [6]	36
Unrestricted Electives and ILP Prerequisites [7]	28

1. Mathematics 1021-1022 may not be used to meet this requirement
2. Must include two science subjects, one of which must be biology, and a sequence from a common subject area containing two laboratory credit hours.
3. A list of subjects that may be used to satisfy the humanities and social sciences may be found in the University Regulations section of this catalog under the heading Areas of Concentration.
4. Computer Literacy - Each student should develop a reasonable competence in those computing techniques most relevant to his/her degree program. This requirement may be fulfilled by one of the following:
   a. Successful completion of Computer Science 1000 or other computer science courses of three credits or more.
   b. Advanced standing credit for Computer Science 1000, earned by successful completion of an examination administered by the Department of Computer Science.
   c. Successful completion of a course or series of courses, within the student's major department, which has been approved by the University Courses and Curricula Committee as fulfilling the computer literacy requirement. Courses that fulfill the oral competency requirement are so indicated in the Courses of Instruction section of this catalog.
5. Oral Competency - Each student should demonstrate competence in the techniques of oral communication relevant to his/her degree program. This requirement may be fulfilled by one of the following:
   a. Successful completion of an approved course that requires a demonstration of oral competence as a condition of receiving a passing grade in the course.
   b. Demonstration of oral competence in an approved course that does not require oral competence as a condition of receiving a passing grade. If a student demonstrates oral competency in such a course, an entry shall be made on his/her transcript that oral competency has been demonstrated regardless of the final grade in the course.
6. Individualized Learning Plan (ILP) must contain at least 3 subject areas with course selections representing a central theme or concentration. No more than 15 hours from any one subject area. For the purposes of this restriction, all course work offered in the Colleges of Business, Engineering, or Education will be considered as single subject areas.
7. Other creditable course work that may include prerequisites and elective courses to support the ILP or other interests.
   - Program must include a minimum of 45 hours at the 3000-4999 level
   - Maximum of 30 credit hours allowed in any one subject
   - 30 hours must be completed while enrolled in the BGS program
   - 18 hours in ILP must be completed while enrolled in the BGS program

Honors in General Studies

Students wishing to earn departmental honors in any major should contact the Director of the University Honors Program for guidance. Bachelor of General Studies students should ordinarily declare their intent to complete the BGS with honors when they initially submit their individualized learning plan (ILP) for departmental approval. BGS majors who wish to graduate with honors must meet the following requirements: 1) a cumulative grade point average of at least 3.5 within the ILP, and an overall grade point average of at least 3.25; 2) successful completion of a Senior Honors thesis (directly related to the ILP title) which includes earning six hours of Arts and Sciences 3999 and an oral defense. Students must arrange for a faculty member from the ILP component, with approval of the BGS Director or their representative, to direct the thesis. The thesis is to be defended orally before a committee composed of the thesis director, a representative of the BGS department, and a representative of the honors program.

Metropolitan College

Robert L. Dupont, Dean

The Metropolitan College at UNO was created to meet the educational needs of adult citizens living and working in metropolitan New Orleans. This unit has centralized administrative responsibility for all non-credit activities (both on and off campus), all credit courses taught at off-campus locations, all sunrise and weekend programs taught on campus, all electronically delivered courses (telecourses, compressed video, and internet), and all courses administered through International Study Programs.

The University is an institutional member of the University Continuing Education Association, the Association for Continuing Higher Education, and the National Community Education Association. These three professional associations represents over 600 institutions of higher learning in the United States and Canada.

Division of Academic Extension

The Division of Academic Extension, located on the Lakefront Campus, coordinates all off-campus, weekend, sunrise, intersession, distance education (electronically delivered classes), and in-house credit programs. More than 800 credit classes are scheduled each year at times and locations convenient to adult students. Undergraduate and graduate courses are taught by UNO faculty at all on and off-campus locations.

The Division of Academic Extension provides academic advising for Special Students as well as career development and counseling services for non-traditional students and adults not enrolled in credit programs. The UNO Golden Ager Program is housed in the Division of Academic Extension. Persons over 65 years of age are exempt from payment of tuition for credit courses. Golden Agers are responsible for other fees (i.e., parking, technology, etc.). Special registration and advising for Golden Agers classified as Special Students are provided through Metropolitan College. In addition, the Division also coordinates noncredit courses for Career Planning, Personal Development, Lifestyle and Leisure, and Children's Programs. The Career Planning and Assessment Center is housed in this Division.

UNO Jefferson Center

The UNO Jefferson Campus, located in the heart of Metairie at 3330 North Causeway Boulevard, is UNO's off-campus center in Jefferson Parish. A variety of credit classes ranging from business, education, science, and liberal arts are offered at this location. Telecommunication linkages with the main campus allow students to enroll in live courses offered on the Lakefront Campus and viewed simultaneously at the Jefferson Campus. Non-credit lifestyle and leisure as well as self-improvement and personal development classes are also available at the Jefferson Campus.

The Career Planning and Assessment Center, which is located at the Jefferson Campus, conducts classes, workshops, and seminars in career planning. The Center provides students with occupational and vocational resource information. To keep up with today's changing technology in computers and software applications, the Jefferson Campus also houses state-of-the-art microcomputer laboratories. The Jefferson Campus is also used for meetings and conference services. The 21 plus spacious classrooms and conference areas are used for seminars and workshops for the UNO community, outside organizations, and non-profit community groups. Easy access and convenient parking make the Jefferson Campus a practical educational asset to the Metairie area.

UNO on the Northshore

UNO conducts classes at the John C. Stennis Space Center in Hancock County, Mississippi. UNO is affiliated with the Stennis Center for Higher Learning which facilitates undergraduate and graduate education; as part of the Center, UNO and Mississippi institutions of higher education offer a variety of curricula in science, engineering, social science, business, and industrial technologies. The UNO office at Stennis coordinates educational courses for students and advises those seeking graduate and undergraduate degrees. Course work for the master's degree in physics, applied physics, computer science, engineering, geography, mathematics, geophysics, and engineering management are offered at Stennis. Also, a Ph.D. in Engineering and Applied Science is available. Students study and conduct research on site with a strong complement of science and engineering courses.

Division of Professional Development

The Division of Professional Development is responsible for the administration of all non-credit professional development and workforce training programs offered by Metropolitan College. The Division offers a diverse curriculum of training seminars, courses, certificate programs, and consulting services to develop, train, and enhance the skills of executives, managers, and other workforce employees in business, industry, and government organizations. Many courses are customized and delivered on-site to corporate clients. The Division includes Paralegal Studies (an ABA-approved credit program), Computer Technology Training Center, Professional Practice Curriculum, Professional Continuing Education, Customized Corporate Education and Training, Medical Coding (a credit certificate), as well as a variety of government-sponsored training and economic development initiatives. Programs are taught by University faculty and other corporate experts; they are designed to update and build the skills needed to successfully keep pace with the many changes effecting today's workforce and the highly competitive corporate marketplace. The Division's administrative offices are located in the UNO Downtown Campus at 226 Carondelet Street in the central business district.

UNO Downtown Center

The UNO Downtown Campus, located at 226 Carondelet in the city's Central Business District, is the administrative home for all workforce, leadership, and technology training programs included in the Division of Professional Development. It also serves as a classroom site for an array of non-credit seminars and evening credit courses. Its 12 comfortable classrooms, 2 well-appointed boardrooms, and 3 computer laboratories are used by adults completing degrees or obtaining training and certification in new technologies or industry-specific skills. Numerous traditional students from the University's Lakefront Campus also enroll in courses at this downtown location.

Weekdays, the Downtown Campus also serves as a conference center for national and local association meetings, small conferences, training seminars, and as a staff retreat or training location for local businesses. An adjoining facility in the Bank One Center houses a community resource center that features a tourism information office as well as Connect. UNO, the university's one-stop shop for business community inquiries about business, economic development, and technology resources or partnership opportunities at UNO.

The Downtown Center also is the administrative headquarters for the Business Alliance of the University of New Orleans, an advisory body of leaders from business, industry, government, and education.

Eisenhower Center for American Studies

The Eisenhower Center for American Studies is dedicated to the study and preservation of twentieth century American history and presidential leadership from a variety of perspectives, including foreign policy, social history, literature and popular culture. The Center maintains an extensive collection of documents, books, and other research materials on presidents Eisenhower, Nixon, and Carter. Eisenhower Center historians contribute their research and writing to a publication series with LSU Press. As host to numerous scholarly conferences, distinguished guest speakers, and World War II roundtables each year, the Eisenhower Center's goal is to generate a better understanding of American history and world issues.

Conference Services

The UNO Office of Conference Services was established in 1989 to provide support for educational conferences, seminars, and workshops brought to the University by members of the UNO faculty and staff as well as those sponsored by the New Orleans community. The primary goal of this office is to offer a system of services including the organizational and logistical planning necessary to host a conference. The services provided by the office include collaborating with faculty for program/event planning, financial management, marketing and promotional strategies, food and beverage menu selection, and event coordination. The office works with local hotels and university and community support services to accommodate various conference needs. The office also coordinates such activities ranging from registration to program evaluations and accounting.

The Lindy C. Boggs International Conference Center opened in May 2002. Located on Lake Pontchartrain adjacent to the University of New Orleans' main campus the center offers 20,000 sq. feet of flexible educational meeting and conference space supported by state of the art telecommunications systems, full service caterers, nearby hotel space and free parking. Meeting sizes from 15 -300 can be housed in the Center's 17 meeting rooms.

Paralegal Studies Program

The College of Liberal Arts and Metropolitan College jointly administer the Paralegal Studies Program, which provides the curriculum for a Minor in Paralegal Studies. The purpose of the minor is to acquaint the student with legal issues and practices in American society. Completion of the paralegal minor requirements does not constitute preparing a graduate to work as a paralegal nor is a certificate in Paralegal Studies awarded.

The requirements of the minor are as follows:

1. Completion of the requirements of a degree in one of the colleges at UNO
2. Completion of the Paralegal Aptitude Test
3. Completion of 18 hours in paralegal courses including Social Sciences 1901, 2005, 2011, 2013 and two electives, one of which must be at the 3000 level.

Students who complete the requirements of the Minor in Paralegal Studies and who wish to receive the Certificate in Paralegal Studies must complete nine additional hours of paralegal courses including Social Sciences 2052, 2907 and 3001. Only those paralegal courses in which the student earns a grade of C or better will count toward earning the Certificate. The Paralegal Studies Program is approved by the American Bar Association. The program is approved by the American Bar Association and a member of the American Association for Paralegal Education.

Interested students should contact the Director of Paralegal Studies at the UNO Downtown Center or the Paralegal Studies Coordinator in the Department of History for further information. Students may be admitted to the program upon successful completion of the Paralegal Aptitude Test.

Paralegals are not attorneys, secretaries, or law clerks. Paralegals are professionals skilled in the delivery of legal services. Paralegals work under the direct supervision of attorneys and are subject to the same ethical and professional standards as attorneys.

Students may fulfill the requirements of the program in several ways: Eligibility for ENGL 1157 is a prerequisite for all paralegal courses.

BACCALAUREATE DEGREE CANDIDATES:

Students seeking a bachelor's degree (there is no bachelor's degree in Paralegal Studies) may fulfill the requirements of the Paralegal Studies Program by completing 27 hours in paralegal courses: 21 hours in the core curriculum (Social Sciences 1901, 2005, 2011, 2013, 2052, 2907, and 3001) and six hours of paralegal courses (three hours at the 3000 level). Only those paralegal courses in which the student has earned a C or better final grade will be counted toward fulfilling the requirements of the program. Degree-seeking students will follow normal requirements for a major in their respective college. The number of paralegal courses accepted for credit toward a degree in any major program will be governed by rules of the student's college and department.

POST-BACCALAUREATE PROGRAM:

Students who possess a baccalaureate degree and are admitted to the paralegal program may complete the program by following the 27 credit hour paralegal course sequence described above.

60 CREDIT HOUR PROGRAM:

Students may enroll in a non-degree credit program leading to the certificate in Paralegal Studies. They must complete 27 hours in paralegal course requirements described above, earning a C or better final grade in each course, and 33 hours in non-paralegal courses numbered 1000 and above, for a total of 60 hours. A minimum 2.0 grade point average is required. Completion of English 1158 is required. Students who wish to enroll in the 60 credit hour program must consult with the director of the Paralegal Studies Program or the academic coordinator of the Paralegal Studies Program in the History Department (Lakefront Campus) in order to plan their curriculum in accordance with the guidelines established by the American Bar Association. Students interested in any of these program options should contact the Director of Paralegal Studies at the Downtown Center or the Academic Coordinator in the Department of History for further information. The Paralegal Studies Program at the University of New Orleans is approved by the American Bar Association.

* Paralegals are not attorneys, secretaries, or law clerks. Paralegals are professionals skilled in the delivery of legal services. Paralegals work under the direct supervision of attorneys and are subject to the same ethical and professional standards as attorneys.

Division of International Education

The mission of the Division of International Education is to assist the university in its continuing efforts to internationalize its campus and curriculum and to contribute to global understanding by developing and supporting opportunities worldwide for students, faculty and staff as well as the general public. The work of the Division reflects the strong commitment of both the College and the University of New Orleans to the international dimension of education. An education in the 21st century is incomplete unless students understand and experience the effects of globalization on economic, political, and cultural life. In its activities, the Division develops credit and non-credit international programs for both student and faculty participation; manages international student exchange; administers language study; eases entry of international students into the University; encourages the internationalization of the curriculum; and, enhances international education and research consortium arrangements with other universities. The Division is comprised of the Office of International Study Programs, the Intensive English Language Program, and the Critical Languages Program.

The Office of International Study Programs

This office currently offers 10 programs of study each summer in eight different countries. The International Summer School in Innsbruck, Austria is the flagship program. In operation since 1976, this program annually enrolls over 300 students from colleges and universities throughout the United States. Offering more than 50 courses, all taught in English, in a multitude of disciplines, this program is one of the largest American summer schools abroad and enjoys a reputation as one of the finest in Europe. In addition to Innsbruck, opportunities are offered in Costa Rica, the Czech Republic, France, Italy and Spain. Summer programs regularly enroll both college students and adults. Each program has a distinct personality. Program durations range from three to six weeks and accommodations range from home-stays, to dormitories, to hotels. For example, a program in Italy is designed for educators, while the program in Rome, Italy is focused exclusively on fine arts and archaeology. The program in Costa Rica offers home-stays, Spanish language, and other classes that take advantage of the rich landscape and bio-diversity of Central America. The Division also administers the Low-Residency MFA in Creative Writing degree program which offers all courses via distance education during the academic year and on-site in Spain, France and northern Italy each summer. The office also administers bilateral student exchange agreements with universities in Australia, Brazil, Chile, Costa Rica, the Czech Republic, France, Slovakia, Australia and Spain. Each year a good number of UNO students take part in exchanges on a semester or yearly basis.

The Intensive English Language Program

The Intensive English Language Program (IELP) is a full-time, non-credit, pre-academic program which fosters cross-cultural exchange by providing English as a Second Language (ESL) instruction to both international and U.S. resident, non-

English speaking students in preparation for study at UNO and other universities and colleges in the United States. IELP offers six 7-week sessions year-round with 20 hours of classroom instruction each week. Admission into the IELP does not guarantee admission to UNO; however, the IELP is designed to provide a transition into the regular university curriculum upon successful exit from the program of intensive study. The IELP issues an I-20 visa document to eligible nationals who are admitted. Tuition and fees include classroom instruction, orientation, special events and field trips, and access to most campus facilities.

Critical Languages Program

The Critical Languages Program (CLP) provides the opportunity for self-directed students to learn less-commonly-taught languages for personal enrichment and/or college credit at the undergraduate level. Students may take these courses for credit or non-credit. The language offerings in CLP would typically not be offered at UNO due to their highly specialized nature and typically low enrollments. Using the self-instructional language program model developed by the National Association of Self-Instructional Language Programs (NASILP), the University is able to offer such rarely taught languages. This model emphasizes self-directed learners grouped into very small classes with native-speaking tutors who provide oral/aural as well as reading and writing practice for students in this classroom setting. This provides an "immersion" environment for the students, while guiding them through the structured program outlined for each language. CLP typically follows the UNO academic calendar and offers three-credit hour courses at varying levels of instruction. In addition, special non-credit courses may be designed for students (or groups of students) with language needs outside of those served by credit courses. All courses are set up on an individual basis through CLP and must be approved by the Department of Foreign Languages. Enrollment in all cases is subject to the University's ability to locate native speakers and professional, qualified persons capable of both monitoring and evaluating the students' work.

CenterAustria: The Center for Austrian Culture and Commerce

CenterAustria enlarges upon more than two decades of cooperation between UNO and the University of Innsbruck in Austria and a Sister-City Trade Agreement between the city of New Orleans and the City of Innsbruck. The mission of CenterAustria is to promote the communication and extension of Austrian culture and commerce. The Center's activities include student and faculty exchange, lectures, conferences, publications and art/artist exchanges. The Center also administers the Academic Year Abroad Program (AYA) at the University of Innsbruck. Students are offered intensive study in the German language and Central European history, economics, and politics in a spectacular Alpine setting. AYA students are served by a resident academic director and take part in numerous activities and field trips throughout their course of study. This program is an excellent opportunity for students pursuing a degree in European and International Studies.

Council for International Visitors

The Council for International Visitors of Greater New Orleans (CIV) is a nonprofit organization that arranges professional appointments and cultural activities for nearly 300 international leaders sent to the greater New Orleans area each year. Many are here at the invitation of the U.S. government through the U.S. State Department International Visitor Program, while others are sponsored by foreign governments or private sector organizations. The New Orleans branch belongs to a nationwide network of 97 councils that cooperates with the National Council for International Visitors (NCIV). CIV facilitates professional and personal interaction for official visitors, enhances respect and communication through international exchanges and alliances, and promotes the city of New Orleans and the state of Louisiana as important business and cultural centers. CIV boasts 200 members and thousands of volunteers in the community that share their time and expertise in meetings with international visitors. CIV offices are located in the UNO Technology Enterprise Center.

National Student Exchange

The University is a member of the National Student Exchange (NSE). Through NSE programs, students at UNO can experience educational and cultural life in a new geographic setting by attending any of 190 participating colleges and universities across the United States, Puerto Rico, Canada, the U.S. Virgin Islands, and Guam. Students may participate in the exchange for one or two semesters with out-of-state fees waived. Students must be at least sophomore level (30 credit hours) with a minimum 2.5 GPA at the time of the exchange. Students meet with their UNO advisers prior to the exchange to assure that all credit completed while on exchange will transfer toward their UNO degree program. Information and applications for the exchange are available at the General Studies Program Office in room 214 of the Bicentennial Education Center. Additional information concerning the NSE Program and all partner universities may be obtained at http://www.nse.org.

Graduate School

Robert C. Cashner, Dean

In recognition of its duty to provide a center of learning for the community of New Orleans, the University established a graduate division in 1963, which later became The Graduate School in 1966. Beginning with master's degree programs in chemistry and physics, The Graduate School furthered the expansion of knowledge with graduate programs across the disciplines. In 1965, six graduate degrees were conferred at commencement: one Master of Science in Chemistry and five Masters of Education. In May 1967, the University of New Orleans conferred its first Doctor of Philosophy degree.

The Graduate School in coordination with the Graduate Council, regulates graduate policy across the University. Graduate programs are administered by their respective College Offices. The University currently offers advanced degrees in over 35 master's programs and 11 doctoral programs. Since 2001, UNO has awarded an average of 828 master's and 60 doctoral degrees a year. The programs are designed to provide students with opportunities for comprehensive training in special fields of study, to instruct them in methods of independent investigation, and to foster the spirit of scholarship and research.

The pursuit of research and free inquiry demand rigor, and graduate students are expected to exceed minimum requirements and to master subjects rather than pass courses to simply comply with formal requirements. Coursework at the graduate level should lay the foundation for the individual scholarship of students.

Admission

Types of Admission and Requirements

Degree Program Admission

Applicants for admission to the Graduate School in a degree program are expected to have the following qualifications:

1. A baccalaureate degree from a university or college approved by a recognized accrediting agency.
2. Point-hour ratios of at least 2.5 for undergraduate work and 3.0 for all graduate and post-baccalaureate work for which a grade is given. (A-4, B-3, C-2, D-1, F-0)
3. Satisfactory academic standing at the last university or college attended.
4. Satisfactory admission test scores (see below).

An applicant who meets all of the above requirements may be granted unconditional admission, if accepted by the program. Program admission standards may be higher than the minimum Graduate School requirements. Many programs also require their own application.

Applicants who fail to meet all the admission requirements may, in rare instances, be considered for probationary admission, but only upon very strong recommendation by the department concerned on the grounds of other evidence of ability to carry out the graduate program successfully. The Dean of the Graduate School will consider the merits of the case and determine whether probational admission is warranted.

Applicants who are unable to supply complete credentials because they are currently enrolled in a university program may be granted provisional admission provided all records, except for the semester in progress, have been submitted. In such cases complete credentials must be received not later than 30 days after the first day of classes in the fall and spring semester and not later than 15 days after the first day of classes in the summer session, or admission may be cancelled.

Non-Degree Graduate Admission

An applicant who has already earned a baccalaureate degree and who does not intend to pursue another undergraduate or graduate degree should apply to The Graduate School as a non-degree student. Students who apply for non-degree status are not required to submit admission test scores; with the following exceptions, they are not required to submit transcripts. (Those non-degree students who plan to enroll in a pre-professional program—pre-MBA, pre-medical, etc.—and those who are teachers taking courses for certification must submit official copies of all transcripts including the transcript certifying their baccalaureate or graduate degree.) A student, however, should carefully consider the problems that may arise in selecting this status. Short term benefits such as temporarily avoiding the admission test may be exchanged for long term serious disadvantages such as not being able to apply credits earned toward a degree program or not being eligible for prompt consideration for admission to a degree program until

admission test scores or complete official transcripts are available. Also, some 6000-level courses are closed to non-degree students. Non-degree students are not eligible for federal financial aid.

Some applicants who apply to a degree program but who have not satisfied all the admission requirements may be admitted as provisional non-degree students temporarily until the missing materials have been supplied. Such non-degree students must supply any missing credentials in the same time period outlined above for degree program students. Provisional non-degree admission does not in any way guarantee subsequent admission on an unconditional basis nor admission to a degree program. It should be noted that provisional non-degree status for students intending to study in the areas of Business is rarely given because of the American Assembly of Collegiate Schools of Business accreditation requirements. A student who has not removed the cause of a provisional status cannot register for a second semester without special permission of their College office.

Up to 12 hours earned as a non-degree student may be applied to a graduate degree program if and only if the courses carry graduate credit, the work is appropriate to the program, the appropriate graduate faculty recommends the acceptance of the credit hours, and the student is accepted into a degree program.

Non-degree students must read and comply with these provisions and departmental regulations to avoid serious problems.

Procedures

Applicants should submit the application form along with required credentials at least 30 days prior to the beginning of registration for the semester for which they are applying (see late fee below). Credentials include admission test scores and official transcripts of all undergraduate and graduate college work taken, showing any degrees awarded. Transcripts must be sent directly to the Admissions Office from each and every college attended even if no credit was earned and even though the work may be shown on another transcript. The requests for these transcripts must be made early, as some colleges take considerable time to supply them.

The Graduate Management Admission Test (GMAT) scores are required for the Master of Business Administration, Master of Science in Accounting, and Master of Science in Hospitality and Tourism Management. GMAT scores are also accepted for the Master of Arts in Arts Administration, the Master of Science in Health Care Management, and the Doctor of Philosophy in Financial Economics. General test scores from the Graduate Record Examination (GRE) must be submitted for all other programs. Some departments also require GRE subject test scores. Admission test scores older than 5 years at the time of registration for the semester for which the applicant wishes to be considered will not be accepted.

Applications must be accompanied by a one-time nonrefundable application fee of $40. An additional $30 late fee must also be sent for applications received after July 1 for fall semester admission; November 15 for spring semester; and May 1 for summer session.

RE-ENTRY Students who have interrupted their residence at the University by not registering for one full year must file an application for re-entry. Degree students must submit supplementary transcripts if any work has been taken at another institution during the interim.

MULTI-CAMPUS STUDENTS Students enrolled in graduate programs at other LSU System universities who wish to take courses at UNO should inquire at the Graduate School of their home institution for the procedure to be followed.

LETTER OF GOOD STANDING Students currently enrolled in graduate programs elsewhere who wish to register for transfer credit will not be required to submit complete transcripts, but may submit a transcript or a letter of good standing from the last institution attended and a statement of the highest degree attained with a statement that the courses taken at UNO will be accepted at the institution issuing the letter. A new application and new letter of good standing must be submitted each semester the student plans to register. The letter of good standing must come from the dean of the student's graduate school.

International Students

Applicants whose native language is not English are required to submit scores earned on the *Test of English as a Foreign Language* (TOEFL), a test designed to ascertain proficiency in English and administered in many overseas testing centers. The Graduate School requires a composite score of at least 79-80 on the iBT (internet based), or 213 (computer-based), or 550 (paper-based). Individual programs may require higher scores. For additional information on the TOEFL you may visit their web site at www.toefl.org. Applicants must be advanced in English comprehension and be able to participate in class discussions. Further testing will be given to verify English competency when the student arrives on campus.

All admission credentials must be submitted prior to acceptance. Complete records must be on file at the University at least 90 days prior to registration for the semester in which the student desires to start. Fees submitted must be payable in U.S. Dollars.

Those requiring a student visa may not be admitted as non-degree students, may not be admitted on probation, and may not normally be admitted provisionally.

The Graduate School will determine whether the applicant's grades and coursework are equivalent to a bachelor's degree from UNO. The applicant's grade must be the equivalent of a "B" average or better (3.0 out of a possible 4.0).

A Statement of Financial Support must also be submitted, indicating financial ability to remain at the University long enough to complete degree requirements. An acceptable statement must be submitted prior to evaluation for admission.

All international students are required to participate in the LSU System student medical insurance program. Fees for this insurance will be assessed at registration.

Fees and Financial Resources

(Consult Fees section.)

Graduate Assistantships, Fellowships and Scholarships

A number of teaching, research, and service assistantships are available for qualified students in all areas of the University. Graduate assistants may be appointed for the academic year (nine months), fiscal year (12 months), or summer. Graduate assistants must be enrolled as full-time (9 hours in Fall and Spring and 6 hours in Summer) students and maintain a 3.0 grade point average. International graduate assistants who have primary responsibility for teaching a course (TA3) are required to have a TOEFL score of 100 (internet-based score) or 250 (computer-based) or 600 (paper-based). Individual graduate programs may have higher requirements.

Assistantships provide a salary, tuition exemption, and a waiver of the non-resident fee. Should a graduate assistant resign or be terminated from the University, the student will be held accountable for all tuition and fees for that semester. Graduate assistants are not permitted to hold employment outside of the University without written authorization from the Dean of the Graduate School. Inquiries and applications should be made directly to the student's degree program or University department.

Graduate Scholarships

The Graduate School at the University of New Orleans distributes merit-based awards each year. Scholastic performance, test scores, and leadership qualities are among the criteria evaluated. Applicants must be accepted to a UNO graduate program, have official transcripts on record, a suitable GRE or GMAT score, meet the GPA requirements for the award and maintain nine hours of coursework each semester (spring and fall). *Students should contact their department chair or graduate coordinator to obtain an application.* All awards are renewable annually for up to two years for master's degree students (three years for MFA students) and four years for doctoral degree students, provided that students maintain the required cumulative GPA and successfully complete nine credit hours each semester.

Master's Level Awards

Graduate Dean's I

Only international students who have been accepted to a master's program with an undergraduate GPA of 3.1-3.19 or a graduate GPA of 3.5-3.59 are eligible for this award. This scholarship provides $2,500 toward tuition for the academic year (fall and spring).

Graduate Dean's II

Any student accepted to a master's degree program with a 3.2-3.29 undergraduate or 3.7+ (U.S. resident) or 3.6-3.69 (international student) graduate GPA is eligible for this award. This scholarship provides either full in-state tuition for Louisiana residents or $5,000 toward out-of-state tuition for the academic year (fall and spring).

Full Graduate Dean's Scholarship

Any student accepted to a master's degree program with a 3.3+ undergraduate or 3.7+ graduate GPA is eligible for this award. This scholarship provides a waiver of tuition and the nonresident fee for the academic year (fall and spring).

Master's and Doctoral Level Awards

Marcus B. Christian Graduate Scholarship

African-American and other U.S. minority students accepted to doctoral or master's degree programs with a 3.0+ undergraduate GPA or 3.25+ master's GPA are eligible for this award. Strong preference is given to Louisiana residents and to graduates of Southern University in New Orleans and other historically black institutions. This scholarship provides a waiver of tuition and the nonresident fee for the academic year (fall and spring).

Doctoral Level Awards

Graduate Dean's III

Only international students who have been accepted to a doctoral program with an undergraduate GPA of 3.3-3.39 or a graduate GPA of 3.6-3.69 are eligible for this award. This scholarship provides $2,500 toward tuition for the academic year (fall and spring).

Graduate Dean's IV

Any student accepted to a doctoral program with a 3.4-3.49 undergraduate or 3.7-3.79 graduate GPA is eligible for this award. This scholarship provides either full in-state tuition for Louisiana residents or $5,000 toward out-of-state tuition for the academic year (fall and spring).

Crescent City Doctoral Scholarship

Any student accepted to a doctoral program with a 3.5+ undergraduate GPA or a 3.8+ graduate GPA is eligible for this award. This scholarship provides a waiver of tuition and the nonresident fee for the academic year (fall and spring.)

Student Financial Aid

For detailed information go to www.finaid.uno.edu or write the Office of Student Financial Aid, University of New Orleans, New Orleans, LA 70148.

Career Development Services

The University, through its centralized Career Development Center, assists students and alumni with their career planning and provides information and materials on career development and employment opportunities. Professional counseling assistance is available to all students and alumni upon request. A permanent Career Information Library is maintained containing literature and publications concerning career fields and employers. The University is a member of the College Placement Council and endorses and follows the principles and practices of this national organization. Research data is continually being developed by this organization and is made available to both students and faculty to keep them currently informed on conditions and opportunities in the job market for college graduates.

During the fall and spring semesters, representatives from business, industry, government, and education visit the Career Planning and Placement Center to interview students for career employment. In order to participate in the interviewing, graduating students should register with the Center early in the fall of the year of their graduation by completing the registration packet. Departmental orientation programs are held

each fall to acquaint students with the Career Planning and Placement Program.

A credentials service is available for students on an optional basis and procedures followed are as established in the Family Education Rights and Privacy Act of 1974.

Affiliated Research

Oak Ridge Associated Universities

The University of New Orleans is affiliated with the Oak Ridge Associated Universities and the Southeastern Universities Research Association. Both organizations provide research collaboration opportunities with federal research facilities, other universities within the southeast, and corporate organizations. Together the universities work toward acquiring joint opportunities to compete for large research projects, to acquire shared information technology and to work in additional ways made possible by the critical number of universities involved. The two organizations also offer opportunities to faculty and graduate students to participate in research through fellowships for graduate students and research affiliations for faculty.

Louisiana Universities Marine Consortium

The Louisiana Universities Marine Consortium (LUMCON) is an organization of public universities in the state including the University of New Orleans. LUMCON was chartered in 1979 to develop coordinated marine research and education within the state university system and provide coastal facilities for these programs.

LUMCON's principal facility is the Universities Marine Center at Cocodrie. The Marine Center consists of a fifty thousand square foot laboratory-dormitory complex, ninety-five foot and fifty-five foot research vessels, numerous small vessels and collecting equipment, and docking and service facilities for all the vessels. Satellite facilities with laboratories, accommodations, and small boats are operational at Port Fourchon and at Fearman Bayou. The Port Fourchon Laboratory provides ready access to salt and brackish marshes, the bays and bayous of the Timbalier and Barataria Bay systems, beaches, and the Gulf of Mexico; while the Fearman Bayou Laboratory provides access to a wildlife refuge on Vermillion Bay, brackish and fresh water marshes, and coastal cheniers.

College courses in the marine sciences offered at all three facilities emphasize extensive field experience and studies of living organisms in their natural habitat and in the laboratory. Enrollment in each course may be limited by space and accommodations available at a particular laboratory, but applicants from member institutions of LUMCON will be given priority. Students enrolled at UNO will register for LUMCON courses through UNO and will pay tuition based on the UNO fee schedule. Credit for such courses will be awarded by UNO and will be recorded on student transcripts. For details of marine science courses to be offered at LUMCON facilities see course offering in Biological Sciences, and consult the Chairs of the Departments of Biological Sciences and Geology and Geophysics.

Louisiana Alliance for Minority Participation (LAMP)

The University of New Orleans is a recipient of funds from the National Science Foundation through the Louisiana Board of Regents to implement and administer a program on the UNO campus called the Louisiana Alliance for Minority Participation (LAMP). LAMP goals are to expand and reinforce systemic mentoring, including research participation and guidance to graduate students. The overall goal is to improve minority participation in science and math education and technology. Various LAMP programs introduce students to research tools and methods, provide hands-on research experience, build computer and technology skills, and help students prepare for graduate school.

Southeastern Universities Research Association (SURA)

The University of New Orleans has been a member of the Southeastern Universities Research Association (SURA) since 1993. SURA is a consortium of colleges and universities in the southern United States and the District of Columbia established as a nonstock, nonprofit corporation. SURA serves as an entity through which colleges, universities, and other organizations may cooperate with one another and with government in acquiring, developing, and using laboratories and other research facilities and in furthering knowledge and the application of that knowledge in the physical, biological, and other natural sciences and engineering.

SURA's goals are to foster excellence in scientific research, to strengthen the scientific and technical capabilities of the nation and of the Southeast, and to provide outstanding training opportunities for the next generation of scientists and engineers.

Projects considered for SURA sponsorship must meet the following criteria:

- High standards of scientific excellence;
- Contribute significantly to the nation's research capabilities and the advancement of science;
- Best handled by a consortium, rather than a single institution;
- Strengthen the scientific stature of the participating institutions and benefit the Southeast; and
- Draw on inspired, dedicated leadership.

The most recent consortium emphases of SURA have focused on Information Technology (IT) and Internet II, advanced materials research, and coastal research activities.

GRADUATE REGULATIONS

Failure of students to acquaint themselves fully with the organization and regulations of the University and Graduate School may lead to complications for which the student must assume full responsibility.

Requirements

Graduate degrees are not conferred merely upon the basis

of number of courses passed or on length of time spent in residence, but rather upon the basis of the quality and scope of a candidate's knowledge and power of investigation. Requirements listed below must be interpreted with the understanding that the Graduate School prescribes only minimum standards. Individual departments, rather than the Graduate School, gain or lose reputation and standing according to the excellence of training given to their graduate students and for that reason are permitted to demand performance well in excess of the basic Graduate School requirements. A successful graduate student must possess the maturity and determination to satisfy intellectual curiosity. As a rule, students who have made averages lower than B in the major fields as undergraduates are not encouraged to proceed with graduate work.

Meeting specific requirements for admission to, or retention in, the Graduate School does not guarantee admission or permission to enter whatever course or curriculum a student desires to take. The University is not prepared to offer a variety of programs sufficient to meet the demands of all prospective students, nor has it the resources to instruct all who desire to enter. It is forced to concentrate its energies upon students who offer the greatest promise of development in the particular fields in which it is prepared to give training.

Departmental Requirements

In matters dealing with courses and curricula the Graduate School prescribes certain standards which it enforces. These may be regarded only as minimum requirements. Individual departments commonly set their own standards at higher levels. Graduate students must assume full responsibility for acquaintance with both general regulations and specific requirements of departments in which they pursue major and minor work.

Candidacy for a Degree

Admission to the Graduate School does not imply admission to candidacy for a degree. Only as a result of one or more semesters of superior work and departmental approval does a student qualify to apply for candidacy for a degree. Students on probation may not apply for candidacy.

Degrees for Faculty and Staff

The Graduate School will not award the doctoral degree to full-time faculty of UNO above the rank of instructor or to other employees who in the opinion of the Graduate Council are of equivalent status; nor will it permit such persons to register for credit toward a UNO doctorate.

Courses

All graduate courses for which the student meets the prerequisites are open to graduate students. Courses numbered above 6000 are graduate courses and only open to graduate students. Graduate credit is awarded for courses numbered 4000G-level and above. Graduate credit is not awarded for courses numbered 4000-level and below. Graduate courses are taught by a member of the graduate faculty, and are taken while the student is enrolled as a graduate student, or under the limited conditions in which an undergraduate may earn graduate credit (see Work by Undergraduates). Graduate students who enroll in 4000G-level courses will be expected to complete assignments conforming to the higher standards of scholarship and research that guide The Graduate School.

Maximum and Minimum Course Loads

The normal full-time course load for a graduate student is nine semester hours for the fall and spring semesters and six semester hours for the summer semester. Greater loads must have program and College approval. Students on graduate assistantships are expected to be enrolled full-time.

Work by Undergraduates

A UNO undergraduate student who lacks not more than six semester hours for the bachelor's degree may be permitted, after scheduling all required work for the degree, to register for graduate credit in courses numbered below 6000. This privilege applies only during the final semester of undergraduate work and is extended only to students who have maintained an average of B or better during the preceding year at the University. It is extended only upon recommendation of the dean of the student's college. This approval must be obtained prior to the start of the semester involved. The courses for graduate credit must also be approved by the professor under whom the student intends to do major work as a graduate student. The total amount of work, graduate and undergraduate, for which a student covered by this provision may register may not exceed 15 semester hours.

Auditors

A student may be admitted to classes as an auditor by obtaining ad-mission to The Graduate School in the regular fashion and by receiving the written permission of the instructor of the course. Auditors will not receive university credit, nor will they be permitted to take a credit examination on work audited.

Students may not change from audit to credit after the last day to add a course. With permission of the instructor, they may change from credit to audit within the first 15 class days of the semester (7 class days in the summer).

Examinations

A student must be enrolled in the University to receive credit in any examination in course work or to satisfy other requirements for advanced degrees. A student may meet this requirement by registering for *Examination or Report/Thesis Only (Course Number 7040)* and paying a fee of $15 at registration. Registration for *Examination Only* (that is, registration in 7040) is allowed for only one semester.

Multi-Campus Registration

Students enrolled in graduate programs at UNO who wish to take courses at other LSU System institutions should inquire at The Graduate School for the procedure to be followed.

Failure to Drop or Resign as Prescribed

Once enrolled in a course, there is a prescribed procedure for either dropping or resigning. It is the student's responsibility to follow the required procedures and to meet the deadlines in this catalog for dropping courses and resigning from the University. Failure to comply usually results in a grade of F.

Correspondence Study

No graduate credit is allowed for work done by correspondence study.

Transfer of Credit

The majority of credits toward a graduate degree (either master's or doctoral) must be earned at the University of New Orleans. The maximum hours that can be transferred for doctoral degrees vary. The specific program of interest should be consulted for the limitations and conditions on transfers for doctoral degrees. Only credits earned in courses may be transferred; thesis/dissertation research credits may not be transferred.

- A maximum of 12 hours earned as a non-matriculating student may be used in a master's degree program, if approved by the program and the College.
- A maximum of 12 hours of transfer credit from other schools may be used in a master's degree program, if approved by the program and the College.
- A maximum of 12 hours from one master's degree may apply to a second master's degree, if approved by the program and the College.

To petition for acceptance of these credits, the student must be currently enrolled, must have completed at least nine hours of graduate course work in a degree program at UNO, and must be in good academic standing. Transfer of credit is approved only for course work taken as a graduate student; no work graded lower than a B can be transferred, unless the course is a joint degree program requirement. Transfer credit offered toward a degree is subject to the same time limits as course work taken at UNO.

Graduate work transferred from other institutions may be applied toward degree requirements, but the grades earned will not be computed in the UNO graduate average, unless the course is a joint degree program requirement.

Graduate Grading System

Grades in the Graduate School have these meanings:

A has a value of four quality points per semester hour and indicates superior work.

B has a value of three quality points per semester hour and indicates satisfactory work.

C has a value of two quality points per semester hour and is below the expected level of performance. In some departments a course with a C grade may be accepted toward a degree, but, strictly speaking, this grade represents work below the standard expected of a graduate student and should be construed as a warning that further work in the subject may be unwise.

D has a value of one quality point and indicates unsatisfactory work by the student. A course with a D grade may not be accepted toward a degree.

F has no quality point value and indicates grossly unsatisfactory work by the student.

I indicates that the student has done satisfactory work in the course, but because of circumstances beyond the student's control he or she has been unable to finish all requirements. An incomplete is not to be given to enable a student to do additional work to bring up a deficient grade. An I grade in a graduate course will be valid until the last day for turning in grades during the student's next semester of enrollment. For a graduate student in an undergraduate course a grade of I becomes a grade of F if it is not converted before the deadline for adding courses for credit (as printed in the catalog) of the next regular Fall or Spring semester. Before the expiration of time period, one of two developments must take place: 1) the student must receive a standard grade; or 2) the student, by means of a petition which has been endorsed by the faculty member concerned, has received the Graduate Dean's approval for an extension of time. The petition must state the reason for the request and the length of time needed. If neither of these things is done, the grade of I will automatically revert to an F grade, as the I will if no grade is turned in within the extension period.

S is a grade given for satisfactory work in certain seminar and research courses, as well as in thesis (7000) and dissertation (7050) progression.If petitioned by the teacher or major professor within 45 calendar days after the last day for submitting final grades, a grade of S may be changed to a regular letter grade.

U is a grade given for unsatisfactory work in certain seminar and research courses, as well as in thesis (7000) and dissertation (7050) progression.A grade of U serves notice of serious and immediate concern with regard to the student's advancement in the degree program. If petitioned by the teacher or major professor within 45 calendar days after the last day for submitting final grades, a grade of U may be changed to a regular letter grade.

W means withdrawal. This grade is given when a student drops a course or resigns from the University before the appropriate deadline (see calendar). Credit hours for which a grade of W is recorded are not used in calculating the student's average.

XF has no quality points and indicates non-attendance.

XU has no quality points, same as 'U,' and indicates non-attendance. Nondegree undergraduate courses (essentially remedial courses) taken by graduate students may, with prior written approval by the student's department, be treated as pass/fail.

Grade Appeal Policy

The course final grade appeal policy provides the student with a safeguard against receiving an unfair final grade in a course, while at the same time respecting the academic freedom of the instructor which is vital to the integrity of the teaching process at the University of New Orleans. The course final grade appeal process strives to resolve a dispute between

student and instructor in the assignment of a course final grade at the collegial level. The intent is never to embarrass or disgrace students or instructors, nor to assess penalty or retribution on any party when mistakes are discovered, but instead to provide a neutral forum for the discussion of differences of opinion. Every student has the right to have a request for consideration of his or her final grade reviewed by the chair of the department and a departmental Grade Appeal Committee. The course final grade appeal is confined to charges of unfair action against an individual student and may not involve a challenge of an instructor's class grading standard. It is incumbent on the student to substantiate the claim that his/her final grade in the course represents unfair treatment, compared to the standard applied to the remainder of the class. Only the final grade in a course may be appealed.

Academic Performance Standards

A graduate student who fails to maintain a satisfactory academic record will be refused permission to register for further graduate work. A cumulative grade-point average of 3.0 is considered by The Graduate School to be a minimum standard of academic performance. Failure to hold a cumulative 3.0 average on graduate course work will be regarded as sufficient reason for placement of the student on academic probation and for denial of a graduate assistantship. If admitted on probation, a student must make a 3.0 grade-point average in each semester in which the first nine hours of graduate work is completed or the student will be dismissed from the Graduate School. (For these purposes, the summer session is regarded as a semester.) Failure to meet specific academic performance standards established by the department may also result in the imposition of academic action against the student.

A graduate student who is dropped (or resigns) from the University may be ineligible for readmission for one or more academic semesters (fall or spring), depending on the academic standing at the conclusion of the last semester attended. (See also the catalog provision on Failure to Drop or Resign as Prescribed.)

Academic Requirements for a Degree

To receive a graduate degree, the Graduate School requires that the student have a minimum cumulative grade-point average of 3.0 on all graduate course work, as well as all course work applied specifically to the degree. A grade of D or F in any course may not be used to satisfy degree requirements. A student may not graduate during a semester in which academic probation is imposed. (See also the sections on Graduate Grading System and Academic Performance Required.)

Graduation Requirements

Generally, a student must meet all the requirements for a degree outlined in one catalog. The student may elect any catalog in force during his or her enrollment at the University, provided enrollment is continuous. A student who breaks enrollment (either voluntarily or by compulsion) for five calendar years may not elect a catalog earlier than the one in force at the time of re-entry. Under no circumstances may a catalog more than 10 years old be used. In some instances, program or college graduation requirements may be imposed that are not included in the catalog under which the student has chosen to graduate. These additional or different requirements are well publicized by the colleges involved. There are several requirements which must be completed by all students prior to graduation. The student must:

1. complete all academic requirements for a degree. This includes both the general degree requirements and the particular program of study in which the student is enrolled.
2. ascertain, through the college of the major, that his or her academic record is accurate and complete. This should be done not later than one semester prior to graduation.
3. submit an application to the Registrar's Office for the degree during the registration period of the last semester in residence. The student will be required to make this formal application and state the exact name to appear on the diploma.
4. pay the diploma fee at the last registration. A student who has previously paid a diploma fee, but who failed to graduate at the time expected, must pay an additional $5 to cover the cost of printing a new diploma.
5. have all financial indebtedness to the University cleared prior to graduation.
6. exit interview for financial aid.

A student who does not follow and complete the above requirements and procedures will not be allowed to graduate.

Application for Degree (Diploma)

It is the responsibility of every graduate student to submit an application for degree to the Registrar's Office during the registration period of the last semester in residence. The student will be required to make this formal application and state the exact name to appear on the diploma. In addition, the student must pay the diploma fee at this last registration. A student who has previously paid a diploma fee, but who failed to graduate at the time expected, must reapply and pay a fee to cover the cost of printing a new diploma. A student must have all financial indebtedness to the University cleared prior to graduation.

GENERAL GRADUATE PROGRAM REQUIREMENTS

Master's Degrees

Master's degrees are conferred upon those who have received the bachelor's degree from UNO or another institution recognized as giving substantially equivalent undergraduate training and who have complied with the regulations of programs as determined by the Graduate School and individual departments in which major work is taken.

Course Requirements

The minimum requirement is 30 semester hours of graduate work, not over six hours of which are allowed for research and the composition of a thesis. In programs not requiring a thesis,

the standard course work requirement is 33 hours. Course requirements are determined by departments but must be approved by the Graduate Council. Graduate credit is awarded for courses numbered 4000G-level and above. Graduate credit is not awarded for courses numbered 4000-level and below. As a minimum, a student must present at least 15 semester hours of work (including not over six hours of thesis credit) in courses numbered 6000 or above. Some departments require more than these minimum standards.

Time Limit

Programs for master's degrees must be completed within eight years. A student may request an extension beyond the eight-year limit with approval from the program and the dean of the Graduate School, in consultation with the Graduate Council. A letter requesting an extension, a plan for demonstrating currency of knowledge, and a timetable for completion of requirements must be submitted to the Graduate School.

Admission to Candidacy

A student will be admitted to candidacy for a master's degree only after having attained unconditional graduate standing, completed at least 12 semester hours of work with a B average or better and a B average or better overall, and received approval of the student's major department for such admission. Formal application must be filed in the College Office not later than a date announced in the calendar. Acceptance of the application rests with the major professor and the Dean of the College. The graduate student must adhere to the program outlined on the application for candidacy. Any changes must be approved by the department in question and by the College in writing.

Foreign Language Requirement

In some departments a reading knowledge of at least one foreign language (classical or modern) is required of all candidates for the master's degree. Students should discuss this matter with their major professor as early as possible.

Thesis

In most departments the preparation of a thesis is an important element in the program leading toward the master's degree. A master's thesis should demonstrate capacity for research, originality of thought, and competency in organization. It must be acceptable in subject matter and exhibit proficiency in composition. Instructions on thesis layout may be obtained at the Office of the Graduate School or on the UNO web site (http: //grad.uno.edu).

Final acceptance of a master's thesis rests with a special committee of three or more members who are nominated by the chair of the department in which major work is taken and are appointed by the Dean of the College. The major professor is designated chair of this committee. One member ordinarily represents a minor field.

Upon committee approval, the thesis is to be submitted to The Graduate School for approval of the format. The abstract should contain no more than 150 words. Once the format has been verified, the thesis is to be deposited with The Graduate School in an electronic format. Electronic submission requires conversion of the manuscript to portable document format (PDF). Electronic versions will be housed in the UNO ETD collection and cataloged by the Earl K. Long Library. When students register the semester of graduation, they will be charged a fee to defray the costs of thesis processing. Should a student require a personal bound copy, he or she should consult one of the several binderies in New Orleans capable of performing this service.

Comprehensive and Final Examinations

After a candidate's course work is at least substantially complete, the candidate will be required to pass a comprehensive examination. This exam may take the form of a capstone course, portfolio, or other evaluation appropriate to the discipline. Since specific examination requirements vary with individual departments, the candidate should note the catalog entry for procedures involved in preparing for the candidate's particular examination. For non-thesis students, greater weight is ordinarily given to the result of this final examination, and it is likely to be considerably broader in scope than that given to students who complete theses. The Dean of the College will appoint the examination committee.

Thesis students are required to pass a comprehensive final examination after a thesis is at least substantially co mplete. The examination may be oral, written, or both oral and written depending upon the requirements of the department concerned. The Dean of the College will appoint the final examination committee. Ordinarily this committee is composed of the same faculty members who served as a special committee on acceptance of the thesis. The chair of the major department nominates the members. The major professor serves as chair of the committee. Nominations for the examining committee, the thesis title, and a suggested time and place for the examination must be submitted to the Dean of the College at least two weeks prior to the examination date. The results of the examination will be submitted to the Graduate School along with student and committee verification of copyright agreement, manuscript access level and Human and Animal Subject committee compliance.

Doctor of Philosophy Degree

The Doctor of Philosophy (Ph.D.) is the highest degree offered by the University. It is conferred only for work of distinction in which the student displays power of original scholarship and only in recognition of achievement and marked ability.

The degree is not awarded solely on the basis of study, extending over any prescribed period of time. Nothing in the following summary of minimum standards should be construed to imply that the degree will be granted merely in recognition of faithful performance of prescribed work.

The basic requirements are twofold:

1. To be admitted to candidacy an applicant must exhibit unmistakable evidence of penetrating mastery of a rather broad major field, which is ordinarily done in a general examination.

2. A candidate must prove ability to complete a significant program of original research, which is done in a dissertation embodying creative scholarship and by passing a rigorous final examination. The dissertation must add to the sum of existing knowledge, and it must be presented with literary skill.

The degree must be completed within 13 years of admission to the doctoral program, or less, if specified by the individual college or program.

While the degree of Doctor of Philosophy cannot be earned simply by passing courses, the program of work prescribed ordinarily provides for a minimum of at least 60 semester hours beyond requirements for the baccalaureate degree. Although coursework requirements are concentrated in the student's major field, a certain amount of work is always required in one or two minor fields. All coursework programs require approval of the Dean of the College. Graduate course work taken at another institution with grades of "A", "B", "P", "S", or equivalent is not subject to the policy on transfer of credit for the master's degree and may be included in the program of study, if approved by the program, the student's advisory committee, and the Dean of the College.

Residence Requirement

A doctoral student must earn four semesters of full-time residence. Full-time is considered to be nine hours during the academic year and six hours in a summer term. All students must be enrolled at UNO in at least six hours for at least two consecutive semesters. The remainder of the residency requirement may be satisfied by part-time enrollment until the equivalent of four full-time semesters is met. The following formula is used to compute residency requirements: six to eight hours count as one-half of a full-time semester; three to five hours as one-fourth of a full-time semester; less than three hours do not count toward the residency requirement. Transfer credit from other institutions may be accepted in partial fulfillment of the residency requirement if approved by the department and the Dean of the College.

Students who are in residence for the purpose of the above requirement are devoting essentially all of their energies to graduate study on this campus under the direct supervision of a major professor or advisory committee. Persons holding graduate assistantships and accordingly performing duties clearly relevant to their graduate study programs will, in most cases, be accruing full-time residence credit.

Qualifying Examination

Early in the student's program of graduate study the major department will evaluate the prospective doctoral candidate for suitability to pursue the doctoral degree. Each graduate program has its own procedure for this evaluation based upon the requirements of its particular discipline. This evaluation may involve written or oral examinations, performance in coursework, or other means.

Application for Doctorate

A student becomes an applicant for the doctorate by being accepted by a major department. A program of study is required either at the end of the first year of enrollment in the doctoral program or after the Qualifying Examination, if one is required by the program.

Language Examinations

Each doctoral program has specific requirements for proficiency in a foreign language or for the mastery of certain equivalent research skills. These requirements should be met as early as possible, in no case later than the application for the general examination. Consult with the graduate coordinator of the program for further information.

Advisory Committee

A student who is found to be capable of working toward the doctorate by the department's qualifying procedure will develop a program of study with the advice and help of a dissertation committee. The department chair or designee appoints the committee after consultation with the student and his/her major professor. The Dean of The College may serve as an ex-officio member and may appoint additional members. This committee will serve as the examination committee for the general examination and will be appointed by the Dean of College. The committee composition will include at least three members from the major department or program.

General Examination

An applicant becomes eligible for the general examination after satisfying the language requirement and demonstrating adequate academic and professional aptitudes to the student's advisory committee. The general examination is ordinarily the most rigorous test in the entire program for the doctorate. The examination may be oral, written, or oral and written according to the rules of the major department or program. The content of the examination must be comprehensive enough to demonstrate expert competence over broad segments of the major field and evidence of deep and current knowledge in the student's chosen specialty as well as evidence of progress in research. In most cases the remainder of a student's time will involve concentrated work on the dissertation and preparation for the final examination.

A notice of the time and location of the general examination and the composition of the dissertation committee must be sent to the College Office at least two weeks prior to the proposed examination date.

Candidacy

Doctoral candidacy involves formal notification to and certification by The Graduate School that a student has demonstrated superior learning and working capacities and that he/she has completed or very nearly completed all course work and other formal degree requirements. Normally students will achieve candidacy at least one year prior to completion of their dissertation. Students who have successfully passed the general examination must file for candidacy with the College Office. The forms are available from the Graduate School web site, (http://grad.uno.edu/), and involve a summary of the student's course of study including all hours taken and to be taken for graduate credit, the results of the general examina-

tion and a listing of the examination committee. The student becomes a candidate after the Dean of the College approves his/her General Examination Report.

Dissertation

Candidates normally concentrate most of their energies in preparing their dissertations. The dissertation must demonstrate a mastery of research techniques, ability to do original and independent research, and skill in formulating conclusions that in some way enlarge upon or modify knowledge in their major field. The original results must be presented in a scholarly and literate form. Research involving human or animal subjects must be approved by the Committees on Human and Animal Subjects and verification of approval must appear in the final version of the dissertation.

The form and style of the dissertation should follow the accepted practices of the major field concerned. Additional information about acceptable dissertation layout is available from The Graduate School (http://grad.uno.edu). After dissertation committee approval, the student must turn in the dissertation to The Graduate School by the stated deadline for approval of the format. The abstract may contain no more than 350 words. Once the format has been verified, the dissertation must be deposited with The Graduate School in an electronic format. Electronic submission requires the conversion of the document to portable document format (PDF) Electronic versions are housed in the UNO ETD collection and cataloged by the Earl K. Long Library. Doctoral students must also complete the UMI Author Agreement Form allowing the student's abstract and title to appear in the Dissertation Abstract International Index.

Department copies of a dissertation are often required. Students should consult the graduate coordinator of the relevant department to verify the format and binding stipulations of this copy. When students register for the semester of graduation, they will be charged a fee to defray the costs of dissertation processing.

Final Examination

The chair of the student's major department must file an application in the College Office for the final examination at least one two weeks prior to the examination date. The final examination application is submitted on a form available from the College Office web site (http://grad.uno.edu). The final examination committee will be appointed by the Dean of the College and will usually consist of the student's dissertation committee to which one or more additions may be made as representatives of the Graduate Faculty.

Although the final examination is traditionally conducted as an oral test which is concerned primarily with the dissertation and related problems, the content may be varied in any way the committee decides and may extend into subject matter related to major and minor fields even though well removed from topics suggested by the dissertation.

Certification

In order to pass the final examination, there must be a minimum of 3 positive votes and no more than one negative vote on a committee with four or more members. The results of the examination, along with the student and committee verification of copyright agreement, manuscript access level, and Human and Animal Subject Committee compliance must be turned in to the College Office. The candidate will be certified to the Board of Supervisors by the Dean of the Graduate School as having fulfilled all requirements for the degree of Doctor of Philosophy.

GRADUATE PROGRAMS

GRADUATE PROGRAMS IN BUSINESS ADMINISTRATION

Accounting

Department of Accounting Mission

The mission of the Department of Accounting is to provide programs, at both the undergraduate and graduate levels, that prepare our students for careers as professional accountants in public practice, industry, and other areas, and for advancement into graduate programs. We will do this by maintaining high academic standards, superior teaching, quality research, significant service, and the effective use of technology. We adhere to the core values of continuous improvement, the highest ethical standards, and diversity in the educational environment.

Academic Programs

The Department of Accounting offers graduate programs in Master of Science in Accounting and Master of Science in Accounting with a Taxation Option. Both the undergraduate and graduate accounting programs are distinguished with separate AACSB International accreditation.

Master of Science Degree in Accounting: This program is designed to prepare students for careers in various areas of professional accounting. It also helps persons already employed in accounting positions to advance in their careers. The program also serves as a foundation for more advanced studies, such as the Ph.D. degree. For students desiring a greater specialization in information systems or auditing, concentrations in these areas are offered within the Master of Science in Accounting program.

Master of Science Degree in Accounting-Taxation Option: This program is a specialized Master of Science degree program that is designed to provide a high degree of concentration in the tax area. The taxation option provides in-depth technical and comprehensive study for persons planning careers in taxation accounting or who are already employed in this area and wish to expand their knowledge of the field. The taxation option program serves as a foundation for more advanced studies, such as the Ph.D. degree.

Both programs may be pursued either full-time or part-time and may be completed by attending evening classes.

Degree Requirements

The Master of Science programs in accounting require 30 hours of course work. A minimum of 21 hours of these classes must be at the 6000 level. Depending on a particular curricu-

lum, this will permit a student to use up to nine hours of 4000G classes toward his/her degree. Each student must also have at least 15 hours of 6000 level accounting classes. Included in that total there must be at least 12 hours of 6000 level accounting classes other than ACCT 6126, ACCT 6167, and ACCT 6168.

Admission Requirements

Applicants to the Master of Science programs should have a baccalaureate degree from an accredited university and an academic record which clearly indicates a high level of achievement. In addition, the applicant should submit satisfactory scores on the Graduate Management Admission Test (GMAT). General admission requirements are a GMAT score of at least 450 and an undergraduate GPA of at least 2.8. If these requirements are not met, a formula and other factors can be used to determine eligibility. The formula is 200 X GPA plus GMAT score. The GPA may be an overall GPA or a GPA for the last 60 hours of coursework. The formula must total at least 1050 for admission to the program. The minimum GMAT that is acceptable is 400.

Preparatory Courses

The graduate programs build on the students' technical competence in undergraduate accounting and business courses. To provide a background for successful study at the graduate level, a series of preparatory courses or their equivalents must be completed before enrolling in courses for graduate credit.

The specific undergraduate foundation courses are from the areas of accounting, economics, finance, management, marketing, and statistics*. These courses do not have to be completed at UNO but a C or better grade is required in each*. The Master of Science degree in accounting requires 43-48 credit hours of these specific courses while the Master of Science-Taxation option degree requires 36-42 credit hours.

* See department for specific courses. Except for accounting 2100, these courses should be taken at the 4400 level to reduce the total number of hours.

Financial Aid

A limited number of research assistantships are awarded on a competitive basis to full-time graduate students with outstanding academic credentials. Appointments are for a nine-month period and may be renewed for a second year. Graduate assistants normally work 20 hours per week assisting the faculty with their research projects and performing other departmental duties. Irrespective of their legal residency, graduate assistants are eligible for in-state fees. A limited number of loans and scholarships are also available to assist students in financing their education.

Master of Science in Accounting Degree Requirements

Required accounting and policy courses	Cr. Hrs.
ACCT 6125 Studies in Accounting Theory	3
ACCT 6133 Studies in Managerial Accounting	3
MANG 6480 Seminar in Business Policies	3
Approved accounting electives*	12
Approved electives	
Free elective	3
Accounting or other business administration courses	6
TOTAL CREDITS REQUIRED	30

* See the department for specific courses and see "degree requirements" above.

Master of Science in Accounting—Information Systems Concentration

Required courses	Cr. Hrs.
ACCT 4142G EDP Auditing and Advanced Accounting Information Systems	3
ACCT 6125 Studies in Accounting Theory	3
ACCT 6133 Studies in Managerial Accounting	3
ACCT 6143 Advanced Accounting Information Systems	3
MANG 6480 Seminar in Business Policies	3
MANG 6710 Management of Technology and Innovation	
OR	
MANG 6730 Business Information Systems Analysis and Design	3
Approved accounting electives*	6
Approved Accounting or other Business Administration Courses	6
TOTAL CREDITS REQUIRED	30

* See department for specific courses and see "degree requirements" above.

Master of Science in Accounting — Auditing Concentration

Required courses	Cr. Hrs.
ACCT 4162G Advanced Auditing	3
ACCT 6167 Internal Auditing Concepts	3
ACCT 6125 Studies in Accounting Theory	3
ACCT 6133 Studies in Managerial Accounting	3
ACCT 6169 Fraud Examination	3
ACCT 6480 Seminar in Business Policies	3
ACCT 6163 Seminar in Auditing	
OR	
ACCT 6168 Operational Auditing	3
Approved accounting course	
Approved electives*	3
Non-Accounting courses	3
Accounting or other business administration courses	3
TOTAL CREDITS REQUIRED	30

* See the department for specific courses and see "degree requirements" above.

Master of Science in Accounting — Taxation Option Degree Requirements

Required accounting courses	Cr. Hrs.
ACCT 6125 Studies in Accounting Theory	3
ACCT 6133 Studies in Managerial Accounting	3

Required taxation courses	Cr. Hrs.
ACCT 4154G Estate and Gift Taxation	3
ACCT 6151 Federal Tax Practice, Procedure, and Report Writing	3
ACCT 6153 Taxation of Corporations and Shareholders	3
ACCT 6156 Advanced Taxation of Partners and Partnerships and Professional Corporations	3
ACCT 6180 Strategic Corporate Tax Planning	3
Approved tax electives*	3
Approved Accounting or Business Administration courses	6
TOTAL CREDITS REQUIRED	30

* See the department for specific courses and see "degree requirements" above.

Arts Administration

The Master of Arts in Arts Administration is interdisciplinary in nature, involving the Department of Film, Theatre and Communication Arts, Department of Fine Arts; Department of Music; and the College of Business Administration. It is built on graduate courses offered by those departments and on specialized courses in Arts Administration. The Arts Administration faculty consists of core faculty from the areas involved and other faculty whose interests are relevant to the program.

The Master of Arts in Arts Administration is designed to prepare students to serve as administrators and managers in all types of arts institutions, among them galleries, theatres, performing arts centers, and community arts centers. Included in the curriculum are courses in business and the arts, as well as an internship designed to give students practical experience in the field.

Admission

A student must be accepted by both the Graduate School and the Coordinating Committee for Arts Administration. To be admitted to graduate studies in Arts Administration, a student must have:

1. bachelor's degree from an accredited college or university;
2. a composite score verbal and quantitative of 1000 on the Graduate Record Examination or a minimum of 400 on the Graduate Management Admission Test (depending upon the student's area of undergraduate study);
3. a grade-point average of 2.5 for undergraduate work and 3.0 for post-baccalaureate work, on a 4-point scale; and
4. satisfactory academic standing at the last college or university attended.

In addition to the above, experience in business and/or the arts is desirable, but not required.

Financial Aid

Graduate assistantships are available to a limited number of qualified applicants each year.

Master of Arts in Arts Administration Degree Requirements

Foundation Courses: Students will be required to present credit for the following foundation courses (or equivalents): Business Administration 3010, Film, Theatre and Communication Arts 2770, Finance 3300, and Management 3401. (Note: Prerequisites for the Finance and Management courses are Accounting 2100 and Economics 2203, 2204, or 2200.)

Graduate Requirements: Students must complete a minimum of 36 hours, including: six hours of approved courses in the arts area of specialization (art history, drama and communications, or music); an overview course in each of the two nonspecialization arts areas (see Fine Arts 6010, Film, Theatre and Communication Arts 6010, Music 6010); and Arts Administration 6501, 6502, 6503, 6990. Students are required to complete six hours of approved arts elective, six hours of approved business electives, and three hours of general electives.

Business Administration

The MBA degree is a professional degree. The program is designed to prepare students for superior administrative positions in both the private and public sectors. The program is accredited by the Association to Advance Collegiate Schools of Business International.

Students are provided a broad preparation in business administration while being allowed a certain amount of concentration in specific business areas. Attention is given to lasting principles instead of specific techniques which may be subject to frequent change. Emphasis is placed on the development of problem-solving and decision-making abilities.

The curriculum integrates communication skills, and social and ethical perspectives for business decision making and a diverse, global perspective through the extensive use of case analysis. The functional business discipline skills are integrated in a capstone, simulation/case course.

The program is designed to satisfy the needs of students with or without undergraduate degrees in business administration. The preparation, foundation core courses are intended to provide the background needed by students with degrees in areas other than business. These foundation courses include: Accounting 4400, Business Administration 4400, Economics 4400, Finance 4400, Management 4400, Marketing 4400, and Quantitative Methods 4400, or their equivalents.

Students who have been awarded a bachelor's degree in business administration from an AACSB-accredited program within eight years of beginning their MBA studies at the University of New Orleans will have satisfied these foundation core requirements. Students who have graduated with a bachelor's degree in business more than eight years prior to beginning the MBA program at the University of New Orleans and students with a bachelor's degree in a field other than business and who have had coursework required in the foundation more than eight years before beginning the MBA program at the University of New Orleans may be able to waive some or all of the foundation courses based upon validation of currency of knowledge in those specific areas.

Admission Requirements

Admission to the traditional MBA program is at the discretion of the College of Business Administration's Committee on Graduate Admissions and the Dean of the Graduate School.

Applicants are normally admitted if they have a baccalaureate degree from an accredited college or university, with a grade-point average of 2.75 or above, a score of 450 or above on the Graduate Management Admission Test (GMAT) and a total of at least 1050 points, based on the formula of 200 times the overall undergraduate grade point average (4.0 system) plus the GMAT score, or 1100 points, based on the formula of 200 times the upper division grade-point average (last 60 semester hours) (4.0 system), plus the GMAT score. In addition, applicants must have maintained at least a 3.0 grade-point average (4.0 system) for all graduate work previously taken. Applicants whose native language is not English must achieve a minimum score of 550 (written) or 213 (computerized) on the Test of English as a Foreign Language (TOEFL). The TOEFL requirement may be waived if the applicant has earned a degree in an English-speaking institution. Students scoring below 650 on the TOEFL will be required to take an English Second Language (ESL) evaluation to determine if English courses are required.

Master of Business Administration Degree Requirements

Courses	Cr. Hrs.
ACCT 6130[1] Advanced Accounting Analysis for Decision Making	3
ECON 6200 Managerial Economics	3
FIN 6300 Financial Administration	3
QMBE 6780 Operations Research	
OR	
BA 6780 Survey of Decision Making Tools	3
MANG 6401 Seminar in Organizational Behavior	3
MANG 6476 Operations Management	3
MKT 6503 Marketing Problem Analysis	3
MANG 6480 Seminar in Business Policies	3
Approved Courses or Concentration Courses[2]	9
Total	33[3, 4]

[1] Candidates with an undergraduate degree in accounting or who have completed a substantial number of accounting courses will be required to substitute a three-hour accounting course at the 6000 level.

[2] Must be approved by the coordinator of the MBA program.

[3] A grade of C or higher is necessary for any course to be accepted for credit. However, a C grade is considered to be below the standard normally expected of a graduate student. A grade of C or better is required for all foundation courses.

[4] As a minimum, a student must present at least 33 semester hours of work in courses numbered 6000 or above (exception: one approved, 4000 graduate-level course may be substituted). A student must have a cumulative grade point average of at least 3.0 on all course work taken to fulfill Graduate Curriculum requirements.

Master of Business Administration Concentrations

Concentrations allow students to focus their studies on a particular area of business administration. The MBA Program offers concentrations in nine areas: Finance; Health Care Management; Human Resource Management; Hotel, Restaurant and Tourism Administration; International Business; Management Information Systems; Marketing; and Technology Management. Each concentration consists of nine hours in selected courses (with the exception of Technology Management which requires 18 credit hours in specific courses), thus fulfilling the elective requirements in the core curriculum. Specific courses must be approved by the program director.

Master of Business Administration—Executive Concentration Degree Requirements

For experienced managers, professionals, and entrepreneurs who are working full time, the Executive MBA is a lock-step program designed to allow rapid completion of the MBA degree with minimal disruption of work. Classes are held principally on Saturdays and Sundays of alternating weeks. Additional fees apply. Classes may be taken only by students admitted to the Executive MBA program. Admission to the EMBA program is separate from admission to the MBA program. Preparatory course material is integrated into the program through the use of special topic sessions.

Admission to the Executive track of the MBA Program is at the discretion of the College of Business Administration's Committee on Executive MBA graduate admissions. Applicants are evaluated based on: (1) the length and quality of their business experience; (2) the attainment of an advanced or professional degree or certificate; (3) demonstrated entrepreneurial activity; (4) attainment of, and grade point in, a baccalaureate degree from an accredited college or university. Applicants to the program may be required to take the Graduate Management Applications Test (GMAT). English language requirements described above must also be fulfilled.

Financial Aid

A limited number of assistantships are available to qualified applicants. These assistantships involve half-time work assignments (20 hours per week) in the various academic departments, centres and functional areas of the College of Business Administration. Requests for application forms or for additional information should be directed to the assistant to the Associate Dean for Academics Administration of the College of Business Administration.

Economics and Finance

Doctor of Philosophy in Financial Economics

The Department of Economics and Finance offers a Doctor of Philosophy degree in Financial Economics with specializations in International Financial Economics, Investments, Corporate Finance, Monetary Theory and Financial Institutions, and an interdisciplinary field. The curriculum is structured to promote competence both in theory and applications, in finance and economics.

Admission Requirements

All students enrolling in the program must have a bachelor's degree from an accredited college or university and, at a minimum, their undergraduate training should include principles of economics, intermediate microeconomic and macroeconomic theory, financial management, one year of statistics, and one semester of calculus. Admission decisions will be based primarily on undergraduate grade point average (GPA), Graduate Record Examination (GRE) or Graduate Management Admissions Test (GMAT) scores, and letters of recommendation. Preferred levels of performance will be a 3.0 GPA and 1550 (combined scores for verbal, quantitative, and analytical) combined GRE or 550 GMAT score. These levels will be viewed as general guidelines since particular strength in one set of credentials may be viewed as sufficient to offset a modest deficiency elsewhere. International students must have a minimum of 600 on the TOEFL Exam.

Curriculum

The doctoral program in financial economics is divided into three stages: core preparation, advanced specialization, and dissertation. All graduate students must have approval of the graduate coordinator for the courses that they take.

Students may be allowed to start taking graduate courses before completing certain foundation courses. The intermediate economics courses may be taken concurrently with the graduate theory courses. Principles of Financial Management (Finance 3300), calculus, and statistics are prerequisites to all graduate courses in the program.

Prospective candidates for the Ph.D. degree in financial economics should be advised that mathematical modeling is used heavily in the field. Indeed, it is virtually impossible to read any current major journal (much less contribute one's own research to them) without considerable training in modeling methods. Those entering doctoral study without command of calculus will be judged deficient. More than one semester in calculus is recommended.

The successful completion of the Ph.D. program is carried out in three stages: core courses that culminate in a qualifying exam, two specialized fields with a corresponding general exam, and a dissertation and its oral defense. The Ph.D. candidate must demonstrate proficiency in mathematics or computer programming in a manner approved by the Graduate Coordinator.

Health Care Management

The master of Health Care Management program is designed to prepare health care professionals to survive and prosper in the twenty-first century. The curriculum provides students with a unique blend of knowledge that bridges the world of health care and the world of finance, marketing, accounting, and management. The objective of this advanced education is to enable graduates to manage and supervise administrative areas in both public and private health care settings more efficiently. This degree will be administered and awarded by the UNO College of Business Administration. This interdisciplinary program involves faculty from the College of Business Administration and the Louisiana State University Health Sciences Center in New Orleans and adjunct lecturers from relevant health care agencies and organizations. The program consists of 33 credit hours or 11 courses. Some courses will be taken at UNO and some at LSU Health Sciences Center. There is no thesis. Admissions Requirements: baccalaureate degree from an accredited college or university; GPA of at least 3.0 or better from undergraduate work; satisfactory academic standing at the last university or college attended. and satisfactory admission tests scores from either the GRE (700 or better) or GMAT (400 or better).

Master of Science in Health Care Management Degree Requirements

Courses	Cr. Hrs.
ACCT 6131[1] Accounting in Health Care Settings	3
ECON 4250G Health Care Economics	3
BA 6010 Health Care Management	
OR	
HPSM 6268 Health Services Administration and Management	3
EPID 6210 Principles of Epidemiology	
OR	
EDHS 4111G Epidemiological Principals in Health Promotion	3
MKT 4536G Health Care Marketing	3
BA 6012 Culture and Behavior in Health Care Settings	3
FIN 6350 Health Care Financial Management	3
HPSM 6258 Health Law and Ethics	3
And two approved electives	6
BA 6013 Strategic Management of Health Care Organizations (Capstone)	
Or	
HPSM 6288 Health Care Policy (capstone)	6

[1] BA 6014 (prerequisite) Business for Health Care Note: this course is required for non-business students and if taken may be used as an approved elective.

Master of Science in Health Care Management — Executive Concentration Degree Requirements

For experienced managers, professionals, and entrepreneurs who are working full time, the Executive Health Care Management (HCM) degree is a lock-step program designed to allow rapid completion of the HCM degree with minimal disruption of work. In this 15-month program, classes are principally on Saturdays and Sundays of alternating weeks. Additional fees apply. Classes may be taken only by students admitted to the Executive HCM program. Admission to the Executive HCM program is separate from admission to the HCM program.

Admission to the Executive track of the Master of Science in Health Care Management Program is at the discretion of the College of Business Administration's Committee on Executive MS-HSM graduate admissions.

Applicants are evaluated based on:

1. the length and quality of their business experience;
2. the attachment of an advanced or professional degree or certificate;
3. demonstrated entrepreneurial activity;

4. attainment of, and grade point in, a baccalaureate degree from an accredited college or university. Applicants to the program may be required to take the Graduate Management Applications Test (GMAT) or the Graduate Record Examination (GRE). English language requirements must also be fulfilled.

Hospitality and Tourism Management

The Master of Science in Hospitality and Tourism Management program is an advanced degree program to better prepare future leaders in the hospitality and tourism industry. It is designed to enhance students' knowledge of the industries that operate under the rubric of global tourism; widen their horizons in regard to unresolved issues in the field; and further develop their analytical abilities and communication skills.

The program prepares students for professional careers in both the private and public sectors of global hospitality and tourism and it also serves as a foundation for more advanced studies.

Students are provided a broad preparation in the important operational aspects of the organizations that comprise the hospitality and tourism industries. Emphasis is placed on the development of problem solving and decision-making abilities as well as the acquisition of basic research skills.

The program is designed to satisfy the needs of students with undergraduate degrees in any field who want to be better prepared for careers in hospitality and tourism.

Admission Requirements

- a baccalaureate degree or equivalent from an accredited university, and
- a minimum undergraduate grade-point average of 2.5, and
- a score of 400 or above on the Graduate Management Admissions Test (GMAT)

In addition, applicants must have maintained at least a 3.0 GPA (4.0 system) for all graduate work previously taken. Applicants whose native language is not English must achieve a minimum score of 550 (written test) or 213 (computer test) on the Test of English as a Foreign Language (TOEFL), and a minimum score of 50 (written or computer test) on Section 1 of the TOEFL. However, the TOEFL requirement may be waived if the applicant has earned a degree in an English-speaking institution. Students scoring below 650 on the TOEFL will be required to complete an English Second Language (ESL) evaluation to determine if any additional English courses are required.

Master of Science in Hospitality and Tourism Management Degree Requirements

Course	Cr. Hrs.
HRT 6001 Survey of the Hospitality and Tourism Industry*	3
HRT 6102 Technology of Hospitality and Tourism Management	3
HRT 6200 Hospitality and Tourism Operations Analysis	3
HRT 6202 Hospitality and Tourism Research Methods	3
HRT 6203 Marketing Applications for the Hospitality and Tourism Industry	3
HRT 6204 Hospitality and Tourism Internship	3
HRT 6205 Change Management for Hospitality and Tourism	3
HRT 6300 Hospitality and Tourism Finance and Revenue Management	3
HRT 6301 Hospitality and Tourism Industry Strategic Management**	3
HRT 6491 Independent Study in Hospitality and Tourism Management	
OR	
HRT 6250 Tourism Destination Development	
OR	
HRT 6495 Special Topics in Hospitality and Tourism	
OR	
HRT 7000 Thesis Research (6 credits)***	3

* Students who have an undergraduate degree in Hotel, Restaurant and Tourism Administration will be allowed the option of substituting a three-hour MBA elective or Hotel, Restaurant and Tourism 6250 or 6495 in the place of Hotel, Restaurant and Tourism 6001.

** HRT 6301 must be taken near the end of the course of study.

*** HRT 7000 must be taken over the last two semesters of study (3 credits per semester) and with approval of the department.

Notes:

1. Students choosing the non-thesis option will need a minimum of 30 credit hours to complete the course requirements for the program. Students choosing the thesis option are required to take HRT 7000 (6 credit hours) for a minimum of 33 credit hours to complete the course requirements for the program.
2. Students without Hospitality and Tourism or Business related undergraduate or graduate degrees or without business experience may be required to take 9 credit hours of M.S. foundation courses. These are FIN 4400 Principles of Financial Management; MKT 4400 Principles of Marketing; and ACCT 4400 Survey of Financial Accounting.

The Master of Science program consists of a minimum of ten courses and a total of 30 credit hours. The thesis option will require an additional three credit hours.

Students choosing the non-thesis option will need a minimum of 30 credit hours to complete the course requirements for the program. Students choosing the thesis option are required to take Hotel, Restaurant and Tourism Administration 7000 (six credit hours) for a minimum of 33 credit hours to complete the course requirements for the program.

Students without hospitality and tourism or business related undergraduate or graduate degrees or without business experience may be required to take nine credit hours of Master of Science foundation courses.

Engineering Management

The College of Business Administration cooperates with the College of Engineering in offering an M.S. degree in Engineering Management. This program makes use of the expertise and resources of the faculty of both colleges. A full description of

this graduate program may be found in the Graduate Programs in Engineering section of this catalog.

GRADUATE PROGRAMS IN EDUCATION AND HUMAN DEVELOPMENT

Curriculum and Instruction

Revisions in the Master's program in Curriculum and Instruction have been submitted to the Board of Regents in accordance with new regulations developed by the Blue Ribbon Commission on Teacher Quality. The redesign initiative, collaboratively supported by the Louisiana Board of Regents and the Louisiana Board of Elementary and Secondary Education (BESE), is largely aligned with new federal and state regulations. Upon approval, these revisions will become effective during the 2006-2007 academic year. It is critical that candidates meet with an academic advisor to remain aware of any changes to a particular program of study.

Requirements for the Master's Degree

Admission: The prospective master's student must meet the admission requirements established by the Graduate School. In addition, applicants must hold a standard teaching certificate, complete the aptitude portion of the Graduate Record Examination and be acceptable to the major department. Applicants who are not certified teachers may also be admitted to a graduate and/or certification program if they meet the admission requirements established by the Graduate School, have completed the aptitude portion of the Graduate Record Examination and are acceptable to the major department and/or the teacher education program.

All required records of the non-certified applicant must be on file in the office of the Associate Dean, College of Education, before any action will be taken on the application.

Unconditional admission to a master's program in Education requires an undergraduate grade point average of at least 2.50 and a combined score of at least 800 on the verbal and quantitative sections of the Graduate Record Examination; or a grade-point average of at least 2.75 and a combined score of at least 750 on the verbal and quantitative sections of the Graduate Record Examination; or a grade-point average of at least 3.00 and a combined score of at least 700 on the verbal and quantitative sections of the Graduate Record Examination. For those students who do not meet the standards for unconditional admission, probationary admission may be possible. For further information concerning probationary admission to the graduate Education programs, please contact the College of Education.

Programs of Study: The program of study in Curriculum and Instruction must include a minimum of 21 semester hours from professional education, including research methods and a minor or related fields.

The minimum requirement in curriculum and instruction is 33 semester hours, including research methods, and a minimum of six semester hours in a minor or related fields outside the major department. Students entering the department for secondary education master's programs in English, science, social studies, and math are required to complete a minimum of nine semester hours from courses in cognate areas. Within the area of concentration, the student may select from a wide range of programs which are concerned with teaching or related instructional activities. These programs include curriculum, instruction, evaluation and appropriate specializations.

Students in a master's program in the Department of Curriculum and Instruction cannot count more than six hours of graduate coursework with a grade lower than a B toward their degree program. In addition, any master's student receiving six hours of graduate coursework with a grade lower than a B in the Department of Curriculum and Instruction shall be dropped from the department's program.

Each candidate is required to pass a written and/or oral comprehensive examination. The examination will concentrate on the application of educational practice and theory with emphasis on the major area of concentration, but may include the minor or related fields. Typically, the comprehensive examination is taken during the last semester of graduate study. Two failures of the examination necessitates dismissal from the master's program. In addition, the candidate for the Master of Arts degree must submit and defend a thesis which demonstrates research competence in an accepted field of education.

Requirements for the Doctoral Degree

The Doctor of Philosophy degree is offered in Curriculum and Instruction in three major concentrations: General Curriculum, Literacy Studies and Language Education, and Teacher Development. The doctoral degree is conferred only for work of distinction in which the student displays power of original scholar ship and only in recognition of achievement and marked ability. The standards of the quality for Doctor of Philosophy are high.

The general regulations and procedures governing programs leading to the Doctor of Philosophy, as explained elsewhere in this catalog, will be followed. Specific application of these regulations and procedures to doctoral programs in Curriculum and Instruction are listed below.

Admission: In addition to the general requirements outlined in this catalog, the department has established these additional requirements for doctoral candidates:

1. Attainment of a combined scaled score of 1000 on the verbal and quantitative portions of the Graduate Record Examination.
2. Provide documents which indicate potential for completing a doctoral program.
3. Demonstration of satisfactory competence in written and oral communication.
4. Presentation of at least three letters of reference.
5. Favorable screening for a doctor's degree program by a graduate faculty committee of Curriculum and Instruction.

Screening takes place in the spring semester for admission in the fall. All paperwork should be on file in the office of the graduate studies coordinator of the Department of Curriculum and Instruction on or before the last working day of February. The student takes at least nine graduate hours in curriculum

and instruction, including Curriculum and Instruction 6900, and then writes the Qualifying Examination.

Course Requirements:

While the degree of Doctor of Philosophy cannot be earned simply by passing courses, the program of study requires a minimum of 96 semester hours beyond the requirements for the baccalaureate degree, including 18 hours of research tools. A minimum of 33 semester hours is required in curriculum and instruction. At least 33 semester hours must be completed after passing the qualifying examination, and at least 18 of these hours must be in curriculum and instruction. A minimum of 45 semester hours must be completed by students who transfer from another accredited university. The student must complete an 18 semester hour minor in a single area of concentration outside the major area of concentration.

Students in a doctoral program in the Department of Curriculum and Instruction cannot count more than six hours of graduate coursework with a grade lower than a B toward their doctoral degree. In addition, any doctoral student receiving six hours of graduate coursework with a grade lower than a Bin the department FOLLOWING COMPLETION OF THE QUALIFYING EXAMINATION shall be dropped from the department's doctoral program.

Research Tools:

Ph.D. candidates must demonstrate competence in research methodologies through taking 18 credit hours of research courses. Ph.D. candidates may substitute a reading proficiency in one foreign language for one of the research courses, if approved by the Department of Curriculum and Instruction.

General Examinations:

An applicant becomes eligible for the general examination demonstrating adequate academic and professional aptitude to the advisory committee. The general examination is ordinarily the most comprehensive evaluation in the entire doctoral program. The examination will be written and oral. The written examination covers both the major and minor fields. The oral examination concentrates on educational research, theory, and practice with emphasis on the major field. An applicant becomes eligible for candidacy after passing the general examination. However, two failures of the general examination will necessitate a dismissal from the doctoral program.

Time Limit for Ph.D. Program in Curriculum and Instruction:

There will be a time limit of five years for completion of coursework from qualifying examination to general examination and a five year limit from completion of general examination to completion of the doctoral dissertation. Extension of time limits may be requested by petitioning the department which houses the Department of Curriculum and Instruction as long as the request does not exceed the Graduate School's stated provisions.

Further information is contained in the department's doctoral handbook.

Financial Aid:

Several types of fellowships, scholarships, and assistantships are available to a limited number of qualified applicants. Those receiving such grants will normally carry a full load of graduate courses and will devote time to instructional or research duties with graduate faculty members.

Counselor Education

Requirements for the Master's Degree

Three concentrations are available in the master's degree programs in Counselor Education: College Counseling, Community Counseling, and School Counseling. The College Counseling concentration prepares graduates to serve as counselors in community colleges, four-year colleges, universities, and other institutions of higher education. The Community Counseling concentration prepares graduates to serve as counselors in a variety of community mental health settings including counseling agencies, business and industry, employee assistance programs, substance abuse treatment programs, hospitals, rehabilitation facilities, court systems, and other settings in which counseling or other mental health services are offered. The School Counseling concentration prepares graduates to serve as counselors in public, parochial, and private schools (pre-school through 12th grade).

Admission:

Prospective master's degree students must meet the admission requirements established by the Graduate School. In addition, applicants must present scores from the General Test of the Graduate Record Examination (GRE) that were earned in the last five years. GRE scores are not required for applicants who hold a graduate degree. Master's degree applicants are considered based on criteria developed and published by the faculty. To be considered for admission to the program without probation, an applicant must have an undergraduate grade-point average of at least 2.50. Presentation of the minimum undergraduate grade-point average does not guarantee admission. Admission decisions are based on all criteria considered in relationship to the need of the program and number of students who can be reasonably accommodated. Applicants who present undergraduate grade-point averages that are lower than those listed above may be considered for admission on probation.

Programs of Study:

Students in Counselor Education complete the Master of Education (M.Ed.) degree program in Counselor Education.

The minimum total semester credits required for the M.Ed. program is 60. Master's degree programs are accredited by the Council for the Accreditation of Counselor Education and related Educational Programs (CACREP). Programs include 36 counseling core credits, six counseling emphasis area credits, six counseling elective credits, three credits in research, and nine credits in field work.

Retention Standards:

Students admitted to the master's degree program in Counselor Education must complete each of the following courses with a grade of B or better before they may enroll in the next course for which that course is a prerequisite: Counselor Education 6430, 6440, and 6990. Master's degree students will be dismissed for any of the following academic reasons: they accumulate six or more hours of grades lower than B in graduate coursework required in their programs of study;

their cumulative UNO graduate grade-point average for two consecutive semesters (fall and spring or spring and fall) is below 3.0; or they fail the comprehensive examination twice.

Transfer of Credit:

A student, with approval from the major professor and the department, may transfer six semester credits of graduate credit in which grades of B or better were earned that were taken in residence at another university outside the LSU System or as many as 12 semester credits of graduate credit taken within the LSU System. These transfer hours may be included in the program of study. Transfer credits, as well as all credits earned toward the degree, must have been taken within the eight years prior to graduation. Credit for individual courses taken more than eight years before the completion of the degree, may be validated by the student's major professor upon demonstration that the student has current knowledge covered in the course.

Comprehensive Examination:

Master's degree students must pass a comprehensive examination, which must be taken near the end of the student's degree program. The examination covers all of the core areas of the students field of study.

Requirements for the Doctoral Degree

The Counselor Education Ph.D. program prepares counselors for leadership roles in the counseling profession. Research competency, advanced counseling skills, and practice in the clinical supervision of other counselors are emphasized in the program. Graduates generally choose careers as university faculty members (counselor educators), administrators of counseling programs, private practitioners, and researchers.

Admission:

Prospective Ph.D. degree students must meet the admission requirements established by the Graduate School. In addition, applicants must complete the General Test of the Graduate Record Examination. Ph.D. degree applicants are considered based on criteria developed and published by the faculty. To be considered for admission to the program without probation, an applicant must have a graduate grade-point average of at least 3.50. Presentation of the minimum graduate grade-point average does not guarantee admission. Admission decisions are based on all criteria considered in relationship to the needs of the program and number of students who can be reasonably accommodated. Applicants who present graduate grade-point averages that are lower than those listed above may be considered for admission on probation. In addition to the UNO Graduate School Application, applicants to the Ph.D. program in Counselor Education must also submit the following: transcripts from all post-secondary schools attended; Graduate Record Examination scores from the General Test taken within the last five years; a personal statement; a Counselor Education application for doctoral studies; a current resume; and three letters of reference. Finalists for admission who are invited must also interview with the program admissions committee. The interview process includes completion of a writing sample and a videotaped counseling interview.

Programs of Study:

The Ph.D. program goes well beyond the accumulation of graduate course credits. It includes coursework, supervised field experiences, completion of examinations, a research project, and a dissertation. The degree program includes a minimum of 114 graduate credits beyond the bachelor's degree. There are 48 credits of entry-level core counseling courses (includes three credits in research), 12 credits of counseling courses in an area of concentration, 39 credits of doctoral-level core counseling courses (includes 12 credits in research), and 15 additional credits in research courses. Because of the number of credits completed in research (30 credits total), this area serves as the minor for doctoral students. The doctoral program includes two 100-hour practica and two 600-hour internships. Concentration areas in counseling in the doctoral program are focused in a particular area of counseling such as college counseling, community counseling, or school counseling.

Research Tools:

Ph.D. students must complete a minimum of 30 credits in research, which includes coursework and dissertation research. Students develop competency in both quantitative and qualitative research methods. They choose one primary method for their dissertation and complete advanced research courses in that area.

Retention Standards:

Ph.D. degree students will be dismissed for any of the following academic reasons: they accumulate six or more hours of grades lower than B in graduate coursework required in their programs of study; their cumulative UNO graduate grade-point average for two consecutive semesters (fall and spring or spring and fall) is below 3.0; they fail the qualifying, general, or final (dissertation defense) examination twice.

Residency:

A doctoral student must earn four semesters of full-time residence. Full-time is considered to be nine hours during the academic year and six hours in a summer term. All students must be enrolled at UNO in at least six hours for at least two consecutive semesters. The remainder of the residency requirement may be satisfied by part-time enrollment until the equivalent of four full-time semesters is met. The following formula is used to compute residency requirements: six to eight hours counts as a one-half of a full-time semester; three to five hours as one-fourth of a full-time semester; less than three hours does not count toward the residency requirement. Transfer credit from other institutions may be accepted in partial fulfillment of the residency requirement if approved by the department and the dean of the Graduate School.

Qualifying Examination:

After admission to the Ph.D. program and completion of nine hours of graduate study, the student must successfully complete a qualifying examination to continue in the doctoral program. The qualifying examination is a comprehensive examination that covers the entry-level core areas in the doctoral program. Students who have previously passed a national certifying examination or counselor licensure examination that is acceptable to the faculty may use that as a passing score on the doctoral qualifying examination.

Transfer of Credit:

A student, with approval from the major professor and the department, may transfer all credits earned toward one or

more master's degrees completed at other universities and up to 15 semester hours earned outside of a master's degree program. Only graduate credits in which grades of B were earned that were taken in residence at another university may be transferred. These transfer hours may be included in the program of study.

Research Project:

Doctoral students complete a research project as defined by the faculty prior to taking their general examination.

Continuous Enrollment:

Doctoral students, after being admitted to the Ph.D. program, must enroll in graduate courses each fall and spring until being awarded the degree. A leave of absence must be formally requested from the faculty prior to any semester in which this requirement is not met. Students will be dismissed if they fail to meet this continuous enrollment requirement.

General Examination:

Students must successfully complete a general examination to continue in the Ph.D. program. Students may take the general examination when they have completed the pre-dissertation research project and most of their coursework, as defined by the faculty.

Time Limit:

Ph.D. students must complete their general examination within five years of completing their qualifying examination. They must complete their degree within five years of passing their general examination. Extension of time limits may be requested by petitioning the Counselor Education faculty, but in no case will the UNO Graduate School requirement that the degree be completed within 12 years of passing the qualifying examination be waived. Extension of a time limit will be granted only when there is justifiable reasons and when the student has made sufficient progress toward completion of the degree.

Educational Administration

Revisions in the Master's program in Educational Administration have been submitted to the Board of Regents in accordance with new regulations developed by the Blue Ribbon Commission on Teacher Quality. The redesign initiative, collaboratively supported by the Louisiana Board of Regents and the Louisiana Board of Elementary and Secondary Education (BESE), is largely aligned with new federal and state regulations. Upon approval, these revisions will become effective during the 2006-2007 academic year. It is critical that candidates meet with an academic advisor to remain aware of any changes to a particular program of study.

Requirements for the Master's Degree

The master's program in Educational Administration prepares graduates for leadership positions in school and higher education settings. Courses leading to Louisiana certification in principalship and supervisor of instruction are offered.

Admission:

Prospective master's degree students must meet the admission requirements established by the Graduate School. In addition, applicants must present scores from the General Test of the Graduate Record Examination that were earned in the last five years. Master's degree applicants are considered based on criteria developed and published by the faculty. To be considered for admission to the program without probation, an applicant must present a combined score on the verbal and quantitative sections of the General Test of the Graduate Record Examination of 800, and must have an undergraduate grade-point average of at least 2.50. Presentation of the minimum test scores and undergraduate grade-point average does not guarantee admission. Admission decisions are based on all criteria considered in relationship to the need of the program and number of students who can be reasonably accommodated. Applicants who present test scores or undergraduate grade-point averages that are lower than those listed above may be considered for admission on probation.

Programs of Study:

Students in Educational Administration may choose to complete the Master of Education (M.Ed.) degree program in Educational Administration or the Master of Arts (M.A.) degree program in Education with an option in Educational Administration. A thesis is required for the M.A. degree program.

The minimum total semester hours required for the master's program is 36, including three hours of research. The Master of Education in K-12 educational administration is an approved principalship certification program by the Louisiana Board of Elementary and Secondary Education.

Retention and Graduation Standards:

To remain in the master's program, students must not accumulate more than two grades lower than a B and must meet all requirements of the Graduate School. M.Ed. students must pass the Comprehensive Examination and M.A. students must pass the thesis defense (final exam). Neither exam may be taken more than twice.

Candidacy:

Once students have completed at least 12 semester hours of work with a B average or better and a B average or better overall, they complete an application to be admitted to candidacy for the master's degree.

Transfer Credit:

A student, with approval from the major professor and the department, may transfer six semester hours of graduate credit in which grades of B or better were earned that were taken in residence at another university outside the LSU System or as many as 12 semester hours of graduate credit taken within the LSU System. These transfer hours may be included in the program of study. Transfer credits, as well as all credits earned toward the degree, must have been taken within the eight years prior to graduation. Credit for individual courses taken more than eight years before the completion of the degree, may be validated by the student's major professor upon demonstration that the student has current knowledge covered in the course.

Comprehensive Examination and Thesis:

M.Ed. degree students must pass a comprehensive examination, which must be taken near the end of the student's degree program. The examination covers all of the core areas of the students field of study. M.A. degree students must successfully defend a thesis in lieu of the comprehensive examination. The

student must be enrolled at the University during the semester in which the Comprehensive Exam is taken and during the semester of graduation.

Requirements for the Doctoral Degree

The Educational Administration Ph.D. program is intended for those who plan an inquiry into the issues of educational administration through a theoretical framework. The Ph.D. studies in educational administration emphasize research methodology, both quantitative and qualitative. Courses are available in school and higher education administration. Study for the Ph.D. is suited for those who plan careers in school and university administration, university teaching, research departments of large school systems or state agencies, or any education-related leadership profession.

The general regulations and procedures governing programs leading to the Doctor of Philosophy, as explained elsewhere in this catalog, will be followed. Specific application of these regulations and procedures to doctoral programs in education, as well as fundamental differences in the programs, are listed below.

Admission:

Prospective Ph.D. degree students must meet the admission requirements established by the Graduate School. In addition, applicants must complete the General Test of the Graduate Record Examination. Ph.D. degree applicants are considered based on criteria developed and published by the faculty. To be considered for admission to the program without probation, an applicant must present a combined score on the verbal and quantitative sections of the General Test of the Graduate Record Examination of 1,000, and must have a graduate grade-point average of at least 3.50. Presentation of the minimum test scores and graduate grade-point averages does not guarantee admission. Admission decisions are based on all criteria considered in relationship to the needs of the program and number of students who can be reasonably accommodated. Applicants who present test scores or graduate grade-point averages that are lower than those listed above may be considered for admission on probation. In addition to the UNO Graduate School Application, applicants to the Ph.D. program in Educational Administration must also submit the following: transcripts from all post-secondary schools attended; Graduate Record Examination scores from the General Test taken within the last five years; a UNO College of Education application for doctoral studies; a personal statement; a current resume; and three letters of reference. It is recommended that applicants consult at least one program faculty member early in the process of preparing the application. Students who submit complete applications prior to the date published in the current Doctoral Bulletin in Educational Administration are considered for admission in the subsequent fall semester.

Programs of Study:

The Ph.D. program goes well beyond the accumulation of graduate course credits. It includes coursework, completion of examinations, a research project, and a dissertation. The degree program includes a minimum of 93 credits beyond the bachelor's degree. Students take a group of core doctoral courses, research methods courses, and concentration courses either in K-12 or higher education administration, and electives. Students should consult the Doctoral Bulletin in Educational Administration for specific requirements.

Research Tools:

Ph.D. students must complete a minimum of 21 credits in educational research methods. Students develop competency in both quantitative and qualitative research methods.

Retention Standards:

Ph.D. degree students will be dismissed for any of the following reasons: they accumulate six or more hours of grades lower than B in graduate coursework required in their programs of study; their cumulative UNO graduate grade-point average for two consecutive semesters (fall and spring or spring and fall) is below 3.0; they fail the qualifying, general, or final (dissertation defense) examination twice; or they fail to maintain continuous enrollment in all fall and spring semesters until successful completion of the dissertation and graduation.

Residency:

In addition to maintaining continuous enrollment (fall and spring semesters), doctoral students must complete at least two consecutive semesters (fall-spring, summer-fall, spring-summer, or spring-fall) of six hours or more of graduate credit.

Qualifying Examination:

After successful screening into the Ph.D. program and during the first semester in which they are enrolled in a doctoral core course, students must take the Qualifying Examination. The Qualifying Examination consists of questions about educational issues and concepts to which the students is expected to apply literature and learning from prior coursework. Committees of the faculty in Educational Administration write and read the Qualifying Examination and judge its adequacy as doctoral writing. If a committee finds responses inadequate, it may ask for an oral interview with the student or may ask the student to write a second Qualifying Examination. After two unsuccessful written examinations, the faculty may request that the Graduate School release the student from the doctoral program.

Transfer of Credit:

A student, with approval from the major professor and the department, may transfer all credits earned toward one or more master's degrees completed at other universities and up to 15 semester hours earned outside of a master's degree program. Only graduate credits in which grades of B were earned that were taken in residence at another university may be transferred. These transfer hours may be included in the program of study. A minimum of 54 credits must be earned at UNO and 45 of these must be earned subsequent to the Qualifying Examination.

Research Project:

Doctoral students complete a research project as defined by the faculty prior to taking their general examination.

Continuous Enrollment:

Doctoral students, after being admitted to the Ph.D. program, must enroll in graduate courses each fall and spring until being awarded the degree. A leave of absence must be formally requested from the faculty prior to any semester in which this requirement is not met. Students will be dismissed if they fail to meet this continuous enrollment requirement.

General Examination:

Students must successfully complete a general examination to continue in the Ph.D. program. Students may take the general examination when they have completed the pre-dissertation research project and most of their coursework, as defined by the faculty.

Time Limit:

Ph.D. students must complete their general examination within five years of completing their qualifying examination. They must complete their degree within five years of passing their general examination. Extension of time limits may be requested by petitioning the Department as long as the request does not exceed the stated provisions of the Graduate School. Extension of a time limit will be granted only when there is justifiable reasons and when the student has made sufficient progress toward completion of the degree.

Special Education and Habilitative Services

Revisions in the Master's program in Special Education have been submitted to the Board of Regents in accordance with new regulations developed by the Blue Ribbon Commission on Teacher Quality. The redesign initiative, collaboratively supported by the Louisiana Board of Regents and the Louisiana Board of Elementary and Secondary Education (BESE), is largely aligned with new federal and state regulations. Upon approval, these revisions will become effective during the 2006-2007 academic year. It is critical that candidates meet with an academic advisor to remain aware of any changes to a particular program of study.

Programs in Special Education

Graduate study is offered in special education which may lead to the Master of Arts (M.A.), Master of Education (M.Ed.), or Doctor of Philosophy (Ph.D.). The candidate for the M.A. degree, must submit and defend a thesis which demonstrates research competence in an accepted field pf special education. The program of study for each degree provides maximum flexibility for each graduate student in designing a program which will meet professional objectives. Upon acceptance into an advanced degree program, each student is assigned a major professor to assist in designing an appropriate program of study.

Master's Degree

The Department of Special Education has a general master's degree program which provides an opportunity for the student to pursue many certifications representative of the field. The certifications which are offered are indicative of the broad range of exceptionality in the field.

They are:

1. Mild/Moderate Disabilities
2. Significant Disabilities
3. Educational Diagnostician
4. Early Intervention
5. Deaf/Hard of Hearing
6. Blind/Visually Impaired
7. Gifted/Talented Education

Requirements for the Master's Degree

Admission:

The prospective master's student must meet the admission requirements established by the Graduate School. In addition, applicants must hold a standard teaching certificate, complete the general portion of the Graduate Record Examination and be acceptable to the major department. Applicants who are not certified teachers may also be admitted to a graduate and/or certification program if they meet the admission requirements established by the Graduate School, have completed the general portion of the Graduate Record Examination and are acceptable to the major department and/or the teacher education program.

All required records of the non-certified applicant must be on file in the office of the Graduate Program Coordinator of the Department of Special Education and Habilitative Services, before any action will be taken on the application.

Admission to a master's program in Special Education and Habilitative Services requires a grade-point average of at least 2.5 for undergraduate work and 3.0 for graduate work, if applicable, and a combined score of at least 750 on the verbal and quantitative sections of the Graduate Record Examination. Students who do not meet the above GPA or GRE requirements may petition for probationary admittance to the master's-level program in the Department of Special Education and Habilitative Services with two letters of support addressed to the Associate Dean of the College of Education. One of these must be from a member of the Graduate Faculty and one from the Graduate Program Coordinator in the Department of Special Education and Habilitative Services.

Programs of Study

The master's program in Special Education (M.Ed.) includes a minimum requirement of 36 semester hours including a minimum of three hours in research methods and a minimum of six semester hours in a minor or related fields outside of major department. The graduate student may select a concentration of study from the array of different program areas in Special Education.

A student in a master's program in the Department of Special Education and Habilitative Services may not count toward degree requirements more than six hours of graduate coursework with a grade below a B.

Each master's candidate is required to pass a written and/or oral comprehensive examination. The examination concentrates on the application of educational practice and theory with emphasis on the major area of concentration, but may include the minor or related fields. Typically, the comprehensive examination is taken during the last semester of graduate study. Two failures of the examination necessitates dismissal from the master's program.

Requirements for the Doctoral Degree

The Doctor of Philosophy (Ph.D.) degree offered in Special Education and Habilitative Services incorporates innovative approaches to leadership training. The general regulations and procedures governing programs leading to the Doctor of Philosophy degree, as explained elsewhere in the catalog will be followed.

Program Description:

Students enrolled in the program address critical issues through coursework and field experiences.

Primarily, courses are divided among the following areas:

1. special education,
2. research, and
3. the minor area of study.

In addition to completing formal coursework, students address identified competencies through participation in a variety of professional activities which take in both university and field settings. The competencies are addressed across the three leadership areas: research, personnel preparation, and systems intervention.

In addition to the selection of a specific role focus for the individual doctoral program, students are offered concentrated areas of study within Special Education and Habilitative Services. Areas of study include mild/moderate disabilities, significant disabilities, educational diagnostician (assessment), early intervention, deaf/hard of hearing education, visual impairments, and gifted/talented education. The doctoral student selects a major area of emphasis (usually based on prior educational and professional experiences) and one additional area to broaden his/her experience in special education. A broader program of study creates flexibility and strengthens the training of future leaders in the field of Special Education and Habilitative Services.

As each student progresses through the coursework and field experiences, the program of study is further individualized.

Students are expected to:

1. specialize in one of the role areas,
2. focus on issues and content targeted for a particular exceptionality group(s), and
3. focus on particular activities which allow the student to build professional skills and capacity.

Throughout the program of study, each student maintains a professional portfolio of the various products resulting from the activities selected via coursework, field experiences, and committee input. The portfolio is used as a primary component of the student evaluation process throughout the program of student.

Admission:

To be considered for provisional admission to the doctoral program in Special Education and Habilitative Services, a student must meet all Graduate School admission criteria listed in the UNO Catalog but must first meet the following required criteria:

1. Graduate Record Exam (GRE) scores on the verbal and quantitative sections of the exam. The GRE must have been taken within five years of the date of applying for admission to the Department of Special Education and Habilitative Services.
2. At least three letters of recommendation from outside the UNO community. Letters are to be addressed to the Graduate Program Coordinator in the Department of Special Education and Habilitative Services.
3. Current Vita detailing education, experience, honors and awards, and other accomplishments of the applicant.
4. Documentation of three years of professional experience in special education or a closely related field.
5. Ability to communicate effectively in written form as demonstrated by writing a personal essay.
6. Ability to articulate professional and personal goals through an oral interview conducted by the Screening Committee.

Acceptance:

Applicants who are favorably screened into the doctoral program are accepted provisionally. Screening takes place in the spring semester for admission in the fall. All paperwork should be on file in the office of the Graduate Program Coordinator in the Department of Special Education and Habilitative Services on or before the first day of April. Applicants who are favorably screened into the doctoral program are accepted provisionally. The student takes at least 12 graduate credit hours with a passing grade of "B" or higher in each course and then completes the Qualifying Examination. Courses to be counted are specified by the doctoral committee. In addition to the courses required, the qualifying examination is taken no earlier than one year after entering the program with approval of the major professor and doctoral committee. The examination itself will focus on activities related to the three leadership roles and will be portfolio-based.

Required Hours:

All doctoral students must have a minimum of 90 graduate credit hours past the baccalaureate degree. Required hours include a minimum of 18 graduate semester hours in research tools. A minimum of 36 credit hours in Special Education and Habilitative Services is required for the Ph.D., including five core doctoral seminars focusing on professional skills and leadership roles, a minimum of nine hours of dissertation study, a minimum of three credit hours of internship and a minimum of six credit hours in one of the leadership role areas of research, systems intervention, or personnel preparation. Also, minimum of 18 credit hours is required in a minor area of study. Students also complete a minimum of three hours in educational foundations which may not include research courses. A minimum of 30 graduate credit hours is to be completed after provisional admission. Any student in the doctoral program who accumulates six semester credit hours of graduate coursework with a grade of C or lower will be dropped from the program.

Internship:

Doctoral students must complete an internship as part of the program of study. The internship activities are individualized and determined by the student, the major advisor, and doctoral committee. Typically, the internship is used to build the students' skills in one or more of the areas of research, personnel preparation, and systems intervention.

Residency:

All doctoral students are required to adhere to the residency policy established by the Graduate School.

General Examinations and Doctoral Candidacy:

To be admitted to doctoral candidacy status, a student must pass a portfolio-based general examination. A doctoral student becomes eligible to take the general examination after demonstrating adequate academic and professional growth to his or

her advisory committee through on-going portfolio evaluation. In addition to passing the general examination, a doctoral student must demonstrate research competence by participating in all phases of a pre-dissertation project prior to applying for candidacy to the doctoral program and beginning work on the dissertation. If a student fails the general examination twice, he/she will be dismissed from the doctoral program.

Time Limits:

Doctoral students must take the general examination within five years after passing the qualifying examination. Doctoral candidates must complete all requirements, including a dissertation that demonstrates original scholarship, within five years of passing the general examination. Extension of time limits may be requested by petitioning the department as long as the request does not exceed the stated provisions of the Graduate School.

GRADUATE PROGRAMS IN ENGINEERING

The College of Engineering offers a Master of Science in Engineering, a Master of Science in Engineering Management, a Ph.D. in Engineering and Applied Sciences, and participates in the Ph.D. in Urban Studies program, allowing applicants with various backgrounds and goals to be accommodated.

Admission

Applicants seeking admission to the graduate program in engineering must have received a bachelor's degree in a field of engineering from an ABET accredited engineering program or, in the case of foreign students, must present evidence of an equivalent preparation. Furthermore, applicants are expected to have a grade-point average (GPA) of 3.0 or better for undergraduate work and all graduate and post-bachelor work. Applicants who have an undergraduate GPA between 2.5 and 3.0 may be considered for probationary admission on a case-by-case basis which will include a review of their last 60 hours of engineering course work and GRE scores.

Applicants with Bachelor of Science degree in mathematics, the sciences, or other undergraduate degrees will be considered on a case-by-case basis. Such students must complete a core program specific to each department including any prerequisite for each or pass the equivalent credit examinations with a grade of "B" or better. See the website of each department for the course listings.

Furthermore, all students must complete all requirements for the graduate courses in which they wish to enroll, and must meet any additional general requirements as may be stipulated by the Graduate School or the College of Engineering.

Master of Science in Engineering

Master of Science in Engineering Degree Requirements

After admission, students are required to select an area of concentration (either civil, environmental, electrical, mechanical, or naval architecture and marine engineering). A choice is provided between a thesis or a research program, calling for 30 hours of graduate work, including six hours of thesis research; and a non-thesis (or course only) option, requiring 33 hours of graduate credit.

Concentration Certificate

The Master of Science program allows for the election of concentrations. A concentration indicates you have taken sufficient courses (9 of the 12 elective credit hours) in a specific area to merit a Concentration Certificate. The Concentration Certificate is issued by the Associate Dean for Research and Graduate Affairs in the College of Engineering.

Concentrations are allowed in the following areas:

Civil and Environmental Engineering
Electrical Engineering
Mechanical Engineering
Naval Architecture and Marine Engineering
Finance
International Business
Human Resource Management
Management of Information Systems

Master of Science in Environmental Engineering

The College of Engineering offers a program of graduate study leading to the degree of Master of Science in Environmental Engineering. The educational objectives of the M.S. in Environmental Engineering program are to fill the need for engineers who are prepared to provide the highly specialized expertise needed to solve municipal and industrial wastewater, and other environmental problems of concern to industry and urban communities. To meet this demand, the program provides the following sub-specialties within environmental engineering: municipal water and wastewater treatment, industrial wastewater treatment; collection, treatment and disposal of solid waste and hazardous substances; air pollution monitoring, modeling, control and management; and water resources/environmental quality modeling and control.

The environmental engineering curriculum has a core of a minimum of 21 credit hours, which include: Civil Engineering 4325, 4328, 6327, 6331 (or Geology 4658), 6332, 6333, and 6365. It will also include six credit hours of thesis work and three hours of an elective course.

A student seeking a master's degree in environmental engineering must complete a minimum of 30 hours of graduate work, including six hours of thesis research. Students taking Civil Engineering 6331 (4cr.) will complete 31 credits, whereas those who choose Geology 4658 will complete 30 credit hours.

The preferred applicant will possess a BS in an ABET credited engineering program, or foreign equivalent. Other BS in physics, chemistry, mathematics, biology, environmental science, and similar programs will be considered. Students with non-engineering degrees will have to complete the engineering science requirements listed below.

Applicants without an Undergraduate Degree in Engineering

Students who do not have an engineering undergraduate degree must complete a core foundation of general engineering studies by taking the appropriate courses listed below and any prerequisites to these courses, or by passing equivalent credit examinations with a grade of B or better.

Foundation Courses	Cr. Hrs.
MATH 2111, 2112 Calculus and Analytical Geometry	10
MATH 2221 Elementary Differential Equations	3
PHYS 1061, 1062 General Physics for Science Majors	6
ENCE 2301 Civil Engineering Computing and Graphics	4
ENCE 2350 Statics	3
ENCE 2351 Mechanics of Materials	3
ENME 2750 Dynamics	3
ENEE 2500 Basic Electrical Circuits	3
ENCE 3318 Principles of Hydraulics (or ENME 3720)	3
ENCE 3323 Introduction to Environmental Engineering	3
ENME 3770 Thermodynamics	3
ENCE 4318 Hydraulic Engineering	3

Master of Science in Engineering Management

The College of Engineering cooperates with the College of Business Administration in offering an M.S. degree in Engineering Management. This program makes use of the expertise and resources of the faculty of both colleges. This program is intended for engineers who wish to remain in their engineering area of expertise but desire to improve their managerial skills and their understanding of business practices.

Admissions

Students admitted into the master of science of engineering management or certificate programs must possess an undergraduate degree in engineering. The program is not open to students with a non-technical education. Those with technical, but non-engineering degrees, must receive permission of the Dean of the College of Engineering in order to enter the program. Candidates for the engineering management graduate program must meet the general University of New Orleans criteria for admission to graduate school and must also have an undergraduate GPA of at least 3.0. Applicants who have an undergraduate GPA between 2.5 and 3.0 may be considered for probationary admission on a case-by-case basis which will include a review of their last 60 hours of engineering course work and GRE scores.

Master of Science in Engineering Management Degree Requirements

There are two options available for the degree of Master of Science in Engineering Management, the non-thesis and the thesis option.

Non-thesis Option:

Completion of 33 credit hours including 18 credit hours of required core courses and three credit hours for a capstone course. The remaining 12 credit hours must be selected from approved electives.

Thesis Option:

Complete of 30 credit hours including a minimum of six credit hours of thesis research, and 18 credit hours of required core courses. The remaining six credit hours must be selected from approved electives.

Doctor of Philosophy in Engineering and Applied Science

The Doctor of Philosophy in Engineering and Applied Science is an interdisciplinary, integrative degree involving faculty from the College of Engineering and the College of Sciences. The program is designed for engineers who need to improve their interdisciplinary skills and is intended for engineers who want to understand how to use technology as a competitive advantage and to use advanced methods to achieve that end.

Admissions

Admission to the doctoral program is based on reasonable evidence that the applicant will prove capable of scholarly research on a broad intellectual foundation. All students enrolling in the program must have a Master's degree from an accredited college or university in engineering, physics, mathematics, geology/geophysics, computer science, or a closely related field, or be willing to complete coursework required in an existing Master's program in one of the participating departments at UNO while pursuing the Ph.D. Admission decisions will be based primarily on grade-point average, Graduate Record Examination scores, and letters of recommendation. Foreign applicants (non-English speaking countries) must also have a satisfactory TOEFL score.

Doctor of Philosophy in Engineering and Applied Science Degree Requirements

Students enrolled in the program must satisfy all general requirements of the UNO Graduate School. Following are the formal procedural requirements for students to receive the Ph.D. degree in Engineering and Applied Science.

Ph.D. candidates must complete a minimum of 51 semester credit hours of graduate course work in an approved program beyond the Bachelor's degree, not including dissertation writing. The credit hours may include up to 30 semester hour credits obtained in a Master's degree program, if the area of the Master's degree is relevant to the doctoral program. Up to six of these 30 credits may be for thesis research. In addition, a doctoral dissertation based on the results of original research under the guidance of a faculty committee and defended in a public examination is required for the doctoral program. At least 30 semester hours of dissertation credit must be earned.

Departments participating in the program are Civil and Environmental Engineering, Electrical Engineering, Mechanical Engineering, Naval Architecture and Marine Engineering, Computer Science, Geology and Geophysics, Mathematics, and Physics. The student's dissertation advisory committee will consist of at least five members. No more than three can be from any one department. There must be at least one committee member from each of the colleges of Engineering and

Sciences. Program qualification is administered by the department of the principal advisor(s). It is based on material in a typical departmentalized master's degree program, or equivalent. Courses are chosen with the consent of the dissertation advisory committee. The committee shall consider the interdisciplinary nature of the program when it approves the courses. A minimum of nine credits (three courses) must be taken in each college. A General (comprehensive) Examination will be administered by the dissertation advisory committee. The examination will be based on material in the student's program of study. After passing the General Examination the Ph.D. student is expected to write a dissertation prospectus and defend it before the dissertation advisory committee. After a successful defense and committee approval of the prospectus the student may pursue research leading to the dissertation. (The student may register for a maximum of 12 dissertation credits before successful defense and approval of the prospectus provided that Program Qualification has been successfully completed.) The dissertation should reflect the interdisciplinary nature of the program. There must be a final public defense of the dissertation administered by the dissertation advisory committee.

Financial Aid

Teaching and research assistantships are available to qualified graduate students on a competitive basis.

GRADUATE PROGRAMS IN LIBERAL ARTS

Applied Anthropology Track

The Department of Anthropology and the Department of Planning in the School of Urban and Regional Studies provide an Applied Urban Anthropology track within the Master of Science in Urban Studies.

The program allows students to gain significant background in applied anthropology through course work in cultural anthropology, cultural resource management, and preservation. Applicants must submit transcripts of prior academic work, Graduate Record Examination score, and three letters of recommendation. Please refer to a detailed description of the program in the Master of Science in Urban Studies degree section in this catalog.

Arts Administration

The Master of Arts in Arts Administration is interdisciplinary in nature, involving the Department of Film, Theatre and Communication Arts, Department of Fine Arts, Department of Music, and the College of Business Administration. It is built on graduate courses offered by those departments and on specialized courses in Arts Administration. The Arts Administration faculty consists of core faculty from the areas involved and other faculty whose interests are relevant to the program.

The Master of Arts in Arts Administration is designed to prepare students to serve as administrators and managers in all types of arts institutions, among them galleries, theatres, performing arts centers, and community arts centers. Included in the curriculum are courses in both business and the arts, as well as an internship designed to give students practical experience in the field.

Admission

A student must be accepted by both the Graduate School and the Advisory Committee for Arts Administration. To be admitted to graduate studies in Arts Administration, a student must have:

1. a bachelor's degree from an accredited college or university;
2. a composite score verbal and quantitative of 1000 on the Graduate Record Examination or a minimum of 400 on the Graduate Management Admission Test (depending upon the student's area of undergraduate study);
3. a grade-point average of 2.5 for undergraduate work and 3.0 for post-baccalaureate work, on a 4-point scale; and
4. satisfactory academic standing at the last college or university attended.

In addition to the above, experience in business and/or the arts is desirable but not required.

Financial Aid

Graduate assistantships are available to a limited number of qualified applicants each year.

Master of Arts in Arts Administration Degree Requirements

Foundation Courses:

Students will be required to present credit for the following foundation courses (or equivalents): Business Administration 3010, Film, Theatre and Communication Arts 2770, Finance 3300, and Management 3401. (Note: Prerequisites for the Finance and Management courses are Accounting 2100 and Economics 2203, 2204, or 2200.)

Graduate Requirements:

Students must complete a minimum of 36 hours, including: an overview course in each of the arts areas (see Fine Arts 6010, Film, Theatre and Communication Arts 6010, Music 6010); Arts Administration 6501, 6502, 6503, and 6990. Students are required to complete six hours of approved arts electives and six hours of approved business.

Film, Theatre and Communication Arts

The Department of Film, Theatre and Communication Arts offers both the Master of Arts degree and the Master of Fine Arts degree.

Master of Fine Arts in Film, Theatre and Communication Arts

The Department of Film, Theatre and Communication Arts is credited by the National Association of Schools of Theatre (NAST). MFA programs in the Performing and Production Arts reflect NAST's highest standards.

The Master of Fine Arts is a terminal degree for students interested in pursing careers in performing and production arts and in creative writing.

Areas of specialization in the performing and production arts include acting, directing, design, and film making; and in creative writing including fiction writing, playwriting, poetry writing, and screenwriting. All MFA tracks in the Performing and Production Arts require the following 18 hour core:

MFA Core for all areas (18 hours required)	**Cr. Hrs.**
FTCA 6020 Form and Idea in the Media	3
FTCA 6040 Performance and Direction	3
FTCA 6060 Concept, Conflict, and Character	3
FTCA 6910 Studio I	3
FTCA 6911 Studio II	3
FTCA 6912 Studio III	3
FTCA 6005 Graduate Studies in Orientation	0

MFA Film Production

The Master of Fine Arts in Film Production includes a 15 credit hour production core which exposes students to the broad processes of filmmaking. Twelve credit hours of Theory, Research and Criticism provide an important theoretical and historical framework for film production. The remaining 15 credit hours may be used to study related areas of interest.

MFA Film Production Requirements

I.	**Production**	**Cr. Hrs.**
	4500 Film Development and Planning	3
	4510 Film Production	3
	4520 Film Postproduction	3
	4555 Spring Film Production	3
	4565 Digital Theory and Application for Film and Video	3
II.	**Theory, Research, and Criticism**	**Cr. Hrs.**
	4540 Development of the Cinema	3
	4545 Film Theory and Criticism	3
	Select 6 credit hours (3 hrs. at the 6000 level) from the following:	
	4591 Film Styles and Genres	3
	6000 Practicum in Research	3
	6600 Film Studies	3
	6601 Film Studies	3
III.	**Electives** (15 hrs. required) Select from list below or other FTCA graduate level courses. 3 hrs credit may come from theory, research, and criticism group.	
	4090 Special Topics	1
	4251 Advanced Screenwriting	3
	4335 Audition Techniques	3
	4530 Advanced Project in Media	3
	4550 Cinematography	3
	4551 Spring Film Crew	3
	4555 Spring Film Production	3
	4560 Advanced Television Production	3
	4566 Production Sound for Film	3
	4567 Post Production Sound Film	3
	4568 Special Topics/Visual Effects	3
	4570 Acting for the Camera	3
	4580 Film Directing	3
	4900 Internship	3
	6001 Practicum in Production	3
	6090 Directed Independent Study	3
	6100 Visual Design for Stage and Screen	3
	6250 Seminar in Screenwriting	3
	6580 Directing for the Media	3
	6690 Graduate Internship in Research	3
	6900 Departmental Internship	3

MFA Performance and Production Arts

The Master of Fine Arts in Performance and Design Programs are intended to prepare our graduate students to successfully apply acquired skills to the art of theatre, make significant cultural contributions to their community, or become leaders in an educational environment aspiring to the highest artistic standards.

MFA Performance Requirements (Acting)

I.	**Production/Literature** (12 hrs. required)	
	Select *four* courses from list below:	
	4260 Styles in Theatrical Production	3
	4400 Development of Theatre	3
	4450 Advanced Studies in Modern Theatre	3
	4455 Advanced Studies in Contemporary Theatre	3
	6001 Practicum in Production	3
	6090 Independent Study	3
	6420 Problems in Performing or Visual Arts	3
	6460 Aesthetics of Script Analysis	3
	6900 Graduate Internship	3
II.	**Acting Area** (30 hrs. Required)	
	4300 Voice Training*	6
	4570 Acting for the Camera	3
	6200 Seminar in Playwriting	3
	6330 Acting	9
	6380 Directing	3
	6830 Stage Movement**	6

* 4301 Voice Stylization may be substituted for three credits

** 4333 Stage Combat or 4831 Movement Applications may be substituted for three credits

MFA Performance Requirements (Directing)

I.	**Production** (6 hrs. required)	
	Select *two* courses from list below:	
	4260 Styles in Theatrical Production	3
	6000 Practicum in Research	3
	6001 Practicum in Production	3
	6090 Independent Study	3
	6420 Problems in Performing or Visual Arts	3
	6460 Aesthetics of Script Analysis	3
	6900 Graduate Internship	3
II.	**Literature** (6 hrs. required)	
	Required: 4450 Advanced Studies in Modern Theatre	3
	Plus, select one course from the list below:	
	4400 Development of Theatre	3
	4455 Advanced Studies in Contemporary Theatre	3
	ENGL 4221 or 4222 Shakespeare	3
	ENGL 4516 Beginning English Drama	3
	ENGL 4916 20th Century Drama	3
	ENGL 4716 18th Century Drama	3
III.	**Directing Area** (30 hrs. required)	
	4300 Voice Training or 4301 Voice Stylization	3

6200 Seminar in Playwriting	3
6330 Acting	3
6380 Directing	6
6830 Stage Movement	3
Plus, two courses in any design area(s)	6
And, two courses from Sections II or III not previously chosen	6

MFA Design Requirements

I. **Production** (15 hrs required)	
6001 Practicum in Production	3
6090 Directed Independent Study	3
6120 Scene Painting	3
6135 Rendering Techniques	3
4160 Lighting Crafts and Techniques	3
II. **Literature** (3 required)	
4450 Advanced. Studies in Modern Theatre	3
III. **History** (6 hrs. required)	
6125 Development of Style and Form	3
6150 Development of Fashion	3
IV. **Design** (9 hrs. required)	
6110 Seminar in Scenic Design	3
6140 Seminar in Theatrical Costuming	3
6170 Seminar in Lighting Design	3
V. **Electives** (9 hrs. required)	
6140 Seminar in Theatrical Costuming	3
6170 Seminar in Lighting Design	3
6110 Seminar in Scenic Design	3
6090 Directed Independent Study	3
4455 Advanced Studies in Contemporary Theatre	3
ENGL 4521 Shakespeare	3
ENGL 4522 Shakespeare	3
ENGL 4916 20th Century Drama	3
ENGL 4716 Restoration and 18th Century Drama	3

Admission:

An applicant is accepted for graduate work in the performing and production arts upon recommendation of the graduate committee and subsequent admission to the Graduate School. Students must hold a bachelor's degree in theatre, film, television, or must possess clearly demonstrated skills and creative ability in their field. Graduate Record Examination scores and at least three letters of recommendation should be submitted. All applicants must submit evidence of their ability in the proposed area of specialization–auditions, prompt books, portfolios, manuscripts, video tapes, films, and other appropriate presentations are to be submitted to the department when application for admission is completed.

Requirements in addition to the requirements of the Graduate School, the following must be met:

1. Satisfactory completion of at least 60 hours of Film, Theatre and Communication Arts courses. With written permission of the department, the candidate may take up to six hours in a field outside the department.
2. At the completion of 18 or more hours of course work the student will be evaluated by the graduate committee. If the first-year review demonstrates sufficient progress, the student will be invited to continue in the program.
3. A grade-point average of 3.0 or better is required in all course work.
4. Normally students must be in residence at least two semesters taking a full load of at least nine hours each semester. Summer sessions may not apply. Under special circumstances this residency requirement may be waived by the department.

Upon completion of one-half of the student's required work, his or her major professor will be designated by the department. Ordinarily this professor will serve as chair of both the examining committee and the publicly presented creative thesis project.

Comprehensive Examination:

Students may take the Comprehensive Examination no sooner than the term in which they have completed 36 hours of graduate credit. This examination will be both written and oral. At least three members of the graduate faculty, one of whom may be from a department other than Film, Theatre and Communication Arts, appointed by the Dean of the Graduate School, will administer the examination. Part of the examination will be devoted to questions based on the reading list and course work, and the remainder will be devoted to questions relating to the student's individual area of specialization.

Publicly Presented Creative Thesis Project: The thesis project will be prepared under the supervision of a committee appointed by the Dean of the Graduate School. This committee will ordinarily consist of three members of the graduate faculty of the department. After successful completion of the comprehensive examination, the candidate will submit a written prospectus for a publicly presented thesis project. The research and execution of this project will normally take nine studio hours. The MFA Thesis project is designed to test the student's skill and knowledge in his or her area of specialization. The project is subject to the graduate committee's approval.

Students who have earned graduate credits in theatre, film, video or its equivalent from other institutions may apply for admission into the Master of Fine Arts program. However the maximum allowable transfer credit must conform to the Graduate Schools policy on extension and transfer credit. Transfer credit is subject to the graduate coordinator's recommendation and approval by the Graduate School.

Resident Acting Company

By audition and invitation only. Highly selective membership of qualified graduate students with specialization in M.F.A. performance area (acting, directing, playwriting), who perform in department's major productions, demonstrations, and development of original scripts. Includes several hours per week of intensive studio work in addition to regular classes.

Creative Writing

Admission:

An applicant is accepted for graduate work upon the recommendation of the creative writing faculty and subsequent admission to the Graduate School. Students must hold a bachelor's degree and must possess clearly demonstrated skills in a creative writing genre. Graduate Record Examination scores, undergraduate transcripts, and three letters of recommendation should be submitted. All applicants must identify the genre in which they plan to specialize and submit a portfolio

of their writing in that genre (two full-length plays, a feature-length film script, two short stories or a 25-page novel excerpt, ten poems, two short nonfiction pieces, or a 25-page book excerpt). In addition to the requirements of the Graduate School, the following must be met:

Resident Option

1. Completion of at least 45 hours of Film, Theatre and Communication Arts and English courses.
2. Fifteen hours of 6000-level course work in creative writing workshop, at least 12 of which will be in the thesis genre. These required courses are: for fiction writing, English 6161; poetry writing, English 6163; for nonfiction writing, English 6154; playwriting, Film, Theatre and Communication Arts 6200; and for screenwriting, Film, Theatre and Communication Arts 6251.
3. Three hours in form and idea, Film, Theatre and Communication Arts 6020; three hours in nonfiction writing, English 6154. For students whose thesis genre is nonfiction writing, a sixth required workshop in a genre other than nonfiction is required in place of the three required hours in English 6154 required of students in the other genres.
4. Nine hours in background courses
   a. Fiction and poetry writing students will be required to take this in the literature of their genre.
   b. Screenwriting and playwriting students will be required to take six hours of techniques courses and a three-hour history course in their genre area.
5. A grade of B or better in all required course work.
6. Nine hours of electives. Chosen in consultation with the director of creative writing, these elective hours will be expected to conform to a cohesive program of study.
7. An overall GPA of 3.0 in elective courses.
8. A creative thesis for which the student may receive six hours of preparation credit. The creative writing thesis will be prepared under the supervision of a committee approved by the dean of the Graduate School. This committee will ordinarily consist of three members of the graduate faculties of the departments of Film, Theatre and Communication Arts and English.
9. A comprehensive exam in the student's genre area that will be prepared, administered, and graded by the thesis committee. It will concern itself with the literature of the student's genre area.

Students who hold master's degrees from other institutions or from other UNO programs may apply for admission, but upon acceptance they must meet all requirements for the M.F.A. degree listed above and must complete 36 hours of resident or non-resident work at UNO, including all 15 hours in writing workshop courses.

Low Residency Option

1. Completion of at least 45 hours of Film, Theatre and Communication Arts and English courses. 18 hours of which must be in residence.
2. Fifteen hours of 6000-level course work in creative writing workshops, at least 12 of which will be in the thesis genre area, and nine hours must be in residence. These required courses are: for fiction writing, English 6171 or 6191; for poetry writing, English 6173 or 6193; for playwriting, Film, Theatre and Communication Arts 6207 or 6209; and for screenwriting, Film, Theatre and Communication Arts 6257 or 6259.
3. Three hours in Form and Idea, Film, Theatre and Communication Arts 6020; three hours in Non-Fiction Writing, English 6154 or 6194.
4. Nine hours in background courses
   a. Fiction and poetry writing students will be required to take this in the literature of their genre.
   b. Screenwriting and playwriting students will be required to take six hours of techniques courses or a three-hour history course in their genre area.
5. A grade of B or better in all required course work.
6. At least nine hours of electives. Chosen in consultation with the director of creative writing, these elective hours will be expected to conform to a cohesive program of study.
7. An overall GPA of 3.0 in elective courses.
8. A creative thesis for which the student may receive six hours of preparation credit. The creative writing thesis will be prepared under the supervision of a committee approved by the dean of the Graduate School. This committee will ordinarily consist of three members of the graduate faculties of the departments of Film, Theatre and Communication Arts and English.
9. A comprehensive exam in the student's genre area that will be prepared, administered, and graded by the thesis committee. It will concern itself with the literature of the student's genre area.

Students who hold master's degrees from other institutions or from other UNO programs may apply for admission, but upon acceptance they must meet all requirements for the M.F.A. degree listed above and must complete 36 hours of resident or non-resident work at UNO, including all 15 hours in writing workshop courses.

Financial Aid

Graduate assistantships are also available for qualified M.A. and M.F.A. students in both the performing and production arts and in creative writing.

English

Master of Fine Arts

The English Department participates in the Master of Fine Arts degree in Film, Theatre and Communication Arts. Fiction writers, playwrights, poets, and screenwriters take course work in English as well as Film, Theatre and Communication Arts. See the section on Film, Theatre and Communication Arts for description and information on admissions, degree requirements, and graduate assistantships.

Master of Arts Programs

The MA program in English is designed to develop the stu-

dent's knowledge of literature and language and skill in literary research and criticism. Though it is aimed primarily at preparing students for further graduate study leading to the degree of Doctor of Philosophy, the program also provides training for teachers of English in secondary schools and colleges and offers the opportunity for rigorous advanced study in the humanities to qualified persons in nonacademic professions.

The Master of Arts in English Teaching is intended primarily for secondary and middle school teachers who are interested in strengthening their credentials through a program emphasizing English content courses. The program is flexible enough, however, to accommodate those who plan to pursue careers outside education but who are interested in advanced work in literature and creative or professional writing.

Admission

Admission is based on undergraduate and graduate GPA, GRE scores, and a statement of purpose. Applications are accepted at any time; students may enroll in any semester.

Master of Arts in English Degree Requirements

1. Completion of at least 30 credit hours.
2. B average in all 4000-level courses and a B average in all 6000-level courses offered for the degree.
3. Reading knowledge of an appropriate foreign language.
4. Satisfactory performance in a comprehensive examination.

Both a thesis and a non-thesis option exist.

All students admitted to the graduate program will be referred to the Coordinator of Graduate Studies in English, who will guide each student in selecting and following a sound program of study suited to needs and level of preparation. This program may, in individual cases, involve more course work than is specified in the general requirements for the degree. In all cases, a minimum of 18 hours must be earned in English courses numbered 6000 and above. One three-hour Directed Study course (English 6397) may be counted toward fulfillment of this minimum requirement; for those students who select the thesis option, three hours of Thesis Research (English 7000) will count toward the 18-hour requirement. Every candidate for the MA degree must complete one introductory course (English 6280 Introduction to Graduate Studies in English, English 6230 Pre-modern Sources of English Literature, or English 6231 Literary Theory) and one course each in four of the following fields: British Literature to 1660, British Literature after 1660, American Literature, and Rhetoric and Writing. For purposes of clarification, it should be understood that the descriptions of 6000-level courses in the pages below are only categorical and that narrowed topics are always chosen for study within these broad categories. In exceptional cases, certain courses may be repeated for credit with the permission of the graduate coordinator.

The foreign language requirement may be satisfied through course work or through acceptable performance on a translation exam, administered by the English Department. In exceptional cases students may petition the Graduate Advisory Committee to permit the substitution of 6 credit hours of advanced (4000-6000 level) coursework in another pertinent subject for reading knowledge in a foreign language. The 6 hours will be in addition to the 30 hours required for the M.A. in English; courses already taken for undergraduate credit will not be accepted. The student's petition must provide a rationale for the substitution, explaining how study in a cognate discipline rather than in a foreign language will help the student meet his or her academic objectives.

The comprehensive examination is a two-part, written examination (three hours each part), designed to test the candidate's knowledge of subject areas and effectiveness of expression. The examination will cover material from reading lists and from course work in two of the four fields listed above. The examination may be taken only after the candidate has passed the reading knowledge examination in a foreign language and has completed all of the course work.

Students who intend to apply for the M.F.A. or Ph.D. are strongly encouraged to select the thesis option. The M.A. thesis (usually 30-40 pages long) is written under the supervision of an adviser assigned to the student by the Coordinator of Graduate Studies in English. Credit for English 7000 (Thesis Research) is granted only after the candidate has passed a one-hour oral examination on the thesis administered by a committee appointed by the Dean of the Graduate School and the thesis has been approved by the committee.

Master of Arts in English Teaching Degree Requirements

This program is designed for teachers who wish to continue development of subject matter competence and enhance pedagogical skills. Normally, state certification is required for admission. Each student admitted to the program will be advised by the graduate coordinators from the Department of English and the College of Education, who will guide the student in preparing an appropriate program of study. While the total number of hours taken by each student may vary, the minimum requirements include:

1. The completion of 36 hours of course credit with at least 21-27 hours in the Department of English, 9-15 hours in the College of Education, and six hours of approved electives. At least 12 hours in the Department of English and three hours in the College of Education must be in courses numbered 6000 and above.
2. A "B" average must be earned in all courses taken for the degree.
3. Satisfactory performance on a written, three-part comprehensive examination covering the two chosen English areas and education.

Both a thesis and a non-thesis option exist. Students who elect the thesis option must take either English 6280 or Educational Foundations and Research 6700. Most theses are in British or American literature, linguistics or education, but creative theses in fiction or poetry are possible. The thesis carries three hours of credit.

English

Students develop specialized areas of concentration within the following fields of study.

Literature: three areas: American Literature, British Literature to 1600, and British Literature after 1660.

Rhetoric and Writing: three areas: Contemporary Research, Theory and Pedagogy, Classical Rhetoric, and Professional Writing. Students building a concentration in writing may enroll in the summer writing institute (Greater New Orleans Writing Project); graduate courses in creative writing are available as well.

Education

Courses are usually chosen from among four fields: Methods for Secondary English, Reading, Curriculum and Instruction, and Language Arts. Within these fields, students may pursue concentrated study in such areas as teaching reading and writing, teaching in a multicultural setting, or teaching English as a second language.

All M.A.E.T. students must take at least 15 hours of 6000-level courses (12 hours in English and 3 hours in Education). Up to 12 hours of graduate credit may be transferred.

Fine Arts

Master of Fine Arts in Fine Arts

The Master of Fine Arts program in Fine Arts is designed to provide professional training leading to a terminal degree in the studio areas of digital media, painting, sculpture, printmaking, and photography.

Admission

After a student has applied to the Graduate School, the application, slides and letters of recommendation will be evaluated by the Committee on Graduate Studies of the Department of Fine Arts. To be accepted into the program, applicants must have an undergraduate degree and a high academic average in scholastic and studio work. Applicants who are admitted to the Fine Arts program will be assigned a sponsor by the Graduate Admissions Committee. The sponsor is a member of the Fine Arts Graduate Faculty who agrees to accept the responsibility of guiding the student through the program and who regularly teaches or exhibits professionally in the student's major area.

Students who are deficient in certain areas may be admitted on a conditional basis. They must complete both the regular requirements and fulfill the conditions imposed by the Committee on Graduate Studies.

Master of Fine Arts in Fine Arts Degree Requirements

Students will complete a minimum of 60 hours of coursework distributed as follows:

Prior to Candidacy:		**Cr. Hrs.**
FA 6501, 6502, 6503, 6504	Major Studio I	12
FA 6701, 6702	Minor Studio	6
FA 6801	Seminar	1
FA 4000 level	Art History	6
Total		25
After admission to Candidacy:		**Cr. Hrs.**
FA 6601, 6602, 6603, 6604, 6605, 6606	Major Studio II	18
FA 6703, 6704	Minor Studio	6
FA 6801	Seminar	2
FA 4000 level	Art History	3
FA 7000	Thesis Research	6
Total		35

Minor Studio courses are expected to be a relevant supplement to the primary focus of the student's Major Studio work and can be either

1. 12 hours of Fine Arts minor studio courses as above, or
2. Students may petition the Fine Arts Graduate Faculty proposing a specific selection of 12 hours of graduate courses in a field outside Fine Arts to satisfy the Minor Studio requirement. The petition must fully explain and justify the nature of the work to be accomplished and be accompanied by a letter of approval from the chairman of each department in which coursework is to be taken. The student is advised to consult with his sponsor and with the Fine Arts Graduate Coordinator in developing the petition for a Minor Outside Fine Arts.

M.F.A. students are required to enroll in the seminar three times, and attend the seminar each semester in which they are enrolled.

MFA Candidacy Examination

At the end of the first year, MFA students' eligibility for MFA candidacy will be determined by the Committee on Graduate Studies, who will arrange for a verbal examination and review of the student's work.

Time Limit

All requirements for the Master of Fine Arts in Fine Arts must be completed within six years.

Financial Aid

A limited number of graduate assistantships and fellowships are available to qualified students working on the Master of Fine Arts degree. For information concerning such assistantships or fellowships, applicants should contact the Graduate Coordinator of the Department of Fine Arts.

Geography

The graduate program in geography offers advanced training in four general areas: 1) land-use analysis; 2) environmental analysis; 3) cartography, remote sensing, and geographic information systems; and 4) cultural and regional geography. Both thesis and non-thesis options are available. The degree is intended to serve the needs of students who elect to continue work at the Ph.D. level, or who plan to use the M.A. as a terminal degree.

Admission

The student must be accepted by the Graduate School and by the Department of Geography. Admission is based on a sufficiently high quality of work at the undergraduate level leading to the completion of a baccalaureate degree and satisfactory performance on the Graduate Record Examination. The Department of Geography reserves the right to grant either conditional or full admission to the program. If admitted on a conditional basis, the student must complete all of the deficien-

cies upon which conditional admittance was based before full admission will be granted.

Master of Arts in Geography Degree Requirements

Students pursuing the Master of Arts degree in geography must show prior credit for Geography 2801 or its equivalent. Students with baccalaureate degrees outside of geography may be granted conditional admission. All students must complete a minimum of 31 credit hours in the thesis option or 37 credit hours in the non-thesis option. In both options, a six-hour minor outside of geography is required. All students are required to complete Geography 4805 or 4810, 6001, and 6887. Students who intend to take 6000-level courses in the techniques or environmental analysis areas of concentration must also take Geography 4801.

Thesis Option Students who elect to pursue the thesis option must complete the core requirements described above and the following additional requirements:

1. at least nine hours in geography courses numbered 6000 or above (excluding thesis hours), including at least three hours of seminar courses.
2. at least six hours in each of two of the four areas of concentration (land use analysis, environmental analysis, techniques, cultural/regional analysis), to include a minimum of 12 hours. At least six of the 12 hours must be at the 6000 level or above.
3. at least six hours of thesis research.
4. the remaining credit hours must be in core courses and electives approved by the student's major advisor. In addition, students in the cultural and regional concentration may elect to substitute three hours of anthropology for three of the six hours in geography required to satisfy section "2" above. Any substitution must have the consent of the student's advisor.

Students must successfully defend a thesis to complete the degree. Students who have already completed any or all of the core courses prior to admission to the Master of Arts program may, with the approval of the student's advisor, substitute an equivalent number of hours in other geography courses.

Non-thesis Option: Students who elect the non-thesis option must complete the core requirements described above and the following additional requirements:

1. at least 15 hours are in geography courses numbered 6000 or above, including at least six hours in seminar courses.
2. at least six hours in each of two of the four areas of concentration. At least six of the 12 hours must be at the 6000 level, with a minimum of three hours of 6000-level credit coming from each of the two areas of concentration.
3. the remaining hours must be in core courses and electives, approved by the student's major advisor (section "4" under the thesis option).

Students must pass a comprehensive exam to complete the degree. This exam will include material from the geography core courses and from each of the two areas of concentration. Students who have already completed any or all of the required core courses prior to admission to the Master of Arts program may, with the approval of the student's advisor, substitute an equivalent number of hours in other geography courses.

History

The graduate program leading to the Master of Arts degree in history provides intensive training for well qualified students in both European and American history. Its primary purpose is to prepare students who wish to pursue work elsewhere for the Doctor of Philosophy degree, but it also provides training for teachers in the secondary schools and rigorous study in the humanities for those from nonacademic professions.

Admission

After acceptance by the Graduate School, admission to the graduate history program will be determined by the department upon the basis of Graduate Record Examination scores, completion of a satisfactory undergraduate major, a record indicating a high standard of undergraduate achievement (normally an overall B average) and two letters of recommendation from faculty members with whom the applicant has studied.

Master of Arts in History Degree Requirements

All candidates must complete a minimum of 27 credits in course work, (with at least 15 in courses numbered above 6000) plus a minimum of three credits in thesis research.

The student will distribute the work as follows:

1. History 6001,
2. a minimum of two pro-seminars,
3. a minimum of one seminar to be taken as part of a pro-seminar-seminar sequence, and
4. History 7000. Only grades of B or better will be accepted toward fulfillment of degree requirements.

Students pursuing the concentration in International Relations must demonstrate proficiency in a foreign language in order to be admitted to candidacy.

The program will culminate in a thesis which demonstrates an appropriate level of skill in historical research and writing and in a comprehensive examination designed to test the student's general knowledge of history.

Concentration in International Relations

A variation of the standard curriculum that provides a concentration in international relations is available to students particularly interested in government service or international business careers. This concentration does not preclude pursuit of a doctorate in history, but it is designed primarily as a terminal degree program that will expand the job opportunities of graduates.

Like the standard curriculum from which it derives, the concentration requires work distributed as follows:

1. History 6001;
2. a minimum of two proseminars (one in European and one in American History);
3. a minimum of one seminar (European or American, as appropriate to the student's interests), to be taken as part of a proseminar-seminar sequence;
4. History 7000 (thesis).

Different from the standard curriculum is the requirement that nine elective credits be earned in related fields as herein determined: Political Science 4800, Economics 4261 or 4262 and one course numbered above 6000 from those offered by Political Science or Economics. Furthermore, all candidates must be certified as having a reading and oral proficiency in one modern foreign language. As with the standard curriculum, the concentration will culminate in a thesis and in a comprehensive examination.

Note that Economics 4272 and other upper level Economics courses carry a prerequisite of Economics 2300 or 2203, 2204, for which no graduate credit is extended.

Master of Arts in History Teaching Degree Requirements

This program is designed for teachers who wish to continue development of subject matter competence and enhance pedagogical skills. Normally, state certification is required for admission, but students who are actively pursuing certification also may be admitted. Each student admitted to the program will be advised by a committee composed of graduate faculty from the Department of History and the College of Education, who will guide the student in preparing an appropriate program of study. While the total number of hours taken by each student may vary, the minimum requirements include:

1. The completion of 36 hours of course credit with at least 21 hours in the Department of History, including History 6001, nine hours in the College of Education, and six hours of approved electives. At least 12 hours in the Department of History and three hours in the College of Education must be in courses numbered 6000 and above.
2. A B average must be earned in all courses taken for the degree.
3. Satisfactory performance on a Comprehensive Examination.

This program does not require the completion of a thesis.

Music

Master of Music Degree

The Department of Music offers a Master of Music in jazz studies which can be completed with a minimum of 33 graduate credit hours to include course work in the applied area, music theory, music history, electives in music, recital, and participation in the graduate colloquium.

Admission

A Graduate Application must be submitted to the Office of Admissions. Official transcripts from all previously attended universities and Graduate Record Exam (GRE) scores must be requested and sent directly to the Office of Admissions. If the GRE has not been taken, it may be taken during the first semester of study. Only the general portion of the GRE is required.

International students must submit Test of English as a Foreign Language (TOEFL) scores of at least 500 with a composite score of 50 on the listening section.

For all student applicants, an audition and interview must be scheduled.

A student can be accepted into the graduate program in music in one of two categories:

1. Unconditional Acceptance: the student has sufficient background to enroll in the required 4000- and 6000-level courses immediately. No prerequisite courses are needed.
2. Conditional Acceptance: the student has some deficiencies in background skills. This student needs specific remedial courses before enrolling in the complete 4000- and 6000-level Master of Music curricula.

Master of Music Degree Requirements

Completion of the Master of Music degree requires a minimum of 33 hours. At the end of the program, each student will present a graduate recital. A thesis is not required. All courses are selected with the approval of the major advisor.

Comprehensive examinations, both oral and written, are required during the final semester. More detailed information on curricular requirements is available from the Music Department in the handbook, "Graduate Study in Music at the University of New Orleans."

Financial Aid

A limited number of graduate assistantships are available to qualified students working on the Master of Music degree.

Political Science

The Department of Political Science offers comprehensive programs leading to the degrees of Master of Arts (M.A.), Master of Public Administration (M.P.A.) and Doctor of Philosophy (Ph.D.). The graduate program is designed to prepare professional political scientists and public administrators for careers in research and teaching, government, and public service.

Admission to the M.A. and Ph.D. Programs

In assessing the admission of a student to the MA program, the Graduate Committee of the Department of Political Science evaluates the academic potential of a student based on the academic record and on the Graduate Record Examination general test scores. Test of English as a Foreign Language (TOEFL) scores are required for students from non-English speaking countries without a previous degree from an American university.

An applicant to the Ph.D. program, in addition to the GRE general test scores, must submit the Department of Political Science's Personal Information Sheet (available online at http://www.poli.uno.edu/documents/pds.doc), and three letters of recommendation from people familiar with the applicant's previous academic performance. Ph.D. students are expected to have attained a strong academic record on all work taken. After this evaluation, the Committee makes a recommendation to the full faculty where the final decision is made.

MA applicants interested in graduate assistantships, like the Ph.D. applicants, must submit three letters of recommendation.

Non-Degree Students

The 6000-level courses offered by the Department of Political Science are open to non-degree students only by special permission of the department.

Master of Arts in Political Science Degree Requirements

The M.A. program is flexible, permitting students to adapt plans of study to their particular needs. The program prepares students for careers in teaching, research, and public service. Candidates must complete either (1) a minimum of 30 credit hours which includes six hours of thesis research or (2) 33 credit hours and no thesis. No more than nine hours in courses numbered below 6000 and no more than six hours of thesis research may be counted toward these minimum requirements. With permission of the Department up to six hours may be taken in related departments. All students must complete Political Science 6001 and 6002 with a grade of B or better. Students who take thesis research will write a thesis which demonstrates an appropriate level of skill in research and writing in an accepted field of political science. Students who intend to apply for admission to the Ph.D. program are strongly encouraged to take thesis research.

All students are required to demonstrate competence in a foreign language or statistics.

Students writing a thesis must pass an oral defense of the thesis. Students who choose the non-thesis option must pass a written and possibly an oral examination.

Doctor of Philosophy in Political Science Degree Requirements

The doctoral programs in political science provide intensive training in the following areas of concentration:

- American Political Behavior
- American Political Institutions
- Comparative Politics
- International Relations
- Minority and Urban Politics
- Public Law
- Public Policy
- Ph.D. candidates must select three of the above areas of concentration.

Qualifying Examination:

Upon successful completion of the Qualifying Examination, a student must complete a minimum of 60 graduate credit hours overall. Included in this must be at least 12 credit hours in one of the areas of concentration and at least nine hours in each of the other areas of concentration, completion of the research method sequence of Political Science 6001, 6002, and 6003 with grades of "B" or better and six credit hours in dissertation research. Work taken toward a M.A. degree may be counted for this purpose, but at least 30 hours must be completed as a Ph.D. student. In addition to the general requirements outlined in this catalog, the department has established these further regulations for doctoral candidates:

1. Ph.D. candidates must complete a minimum of 54 hours in graduate courses plus the dissertation. At least 24 of these course hours must be completed after the student has received a master's degree.
2. Ph.D. candidates must demonstrate competence in research methods by passing Political Science 6001, 6002 and 6003 or the equivalents with a B or better. In addition, reading knowledge in one foreign language is required or knowledge of advanced quantitative methods.
3. In the general examination, the candidate will be tested in three of the areas listed above. The examination will be both oral and written. If the Ph.D. degree is not completed within five years after passing the general examination, that examination must be retaken.
4. There is a final dissertation defense examination.

Master of Public Administration

The objective of the Master of Public Administration (MPA) program is to prepare students for leadership in public or nonprofit organizations. The program consists of 42 hours of academic credit plus a thesis or project. Core courses (27 hours) cover the common knowledge, skills, and values for public service in a democratic society. For electives (nine hours) students may choose from several established areas of faculty expertise or design an individual specialization with the consent of the program director. All students will demonstrate the ability to apply theoretical concepts through the completion of a thesis or a project (6 hours).

Admission to the M.P.A. Program

Admission is limited to students who show significant promise of success in the program. Applicants must hold an undergraduate degree from an accredited institution. Because people come to public and nonprofit service from a variety of backgrounds, there is no requirement for a particular undergraduate degree or major. Prerequisites do include at least three hours' credit in economics (micro or macro) and political science (covering American and/or state and local government). These courses may be taken after admission in the early part of the student's program.

The MPA admissions committee will examine each applicant's total record. A candidate who is otherwise qualified may be required to take additional courses to remedy specific weaknesses. The admissions committee will review:

- Official scores on the Graduate Record Examination (GRE).
- Official transcripts from all higher education institutions attended.
- Work experience, if any.
- Letters of recommendation including, if possible, letters from former professors evaluating the candidate's potential for graduate work.
- A written statement of 500-1000 words describing the applicant's reason for seeking an MPA and a career in public service.

Master of Public Administration Degree Requirements

Prerequisites:

Economics, micro or macro (3 hrs) and Political Science, an introductory course on American national and/or state and local institutions (3 hrs). Unmet prerequisites may be made up early in the program.

Required Courses (27 hrs):

- PADM 6010 The Profession of Public Administration

- PADM 6020 Bureaucracy and Democracy
- PADM 6110 Public Budgeting
- PADM 6160 Law and Ethics in Public Administration
- PADM 6401 Administrative Behavior
- PADM 6180 Human Resource Administration in the Public Sector
- PADM 6410 Technology in Public Organizations
- PADM 6201 Policy Analysis and Program Evaluation
- URBN 6001 Research Methods
- Electives (9 hrs)
- Thesis or final project (6 hrs)
- PADM 6901 Capstone I and either PADM 7000 Thesis Research or PADM 6902
- Capstone II.

All masters students must include at least 15 hours of courses numbered 6000 or above in their programs of study.

MPA Non-Profit Leadership Concentration

In conjunction with Metropolitan College's International Program in Nonprofit Leadership (IPNL), the MPA program offers a concentration in nonprofit leadership (NPL). The concentration consists of 15 hours: two courses taken in place of required courses, and three additional courses.

NPL students must complete the following courses which are currently offered under PADM 4800:

Substitutions for MPA Required Courses

PADM 4800 Legal & Ethical Issues in the Nonprofit Sector (substitute for PADM 6160 Law and Ethics in Public Administration)

PADM 4800 Financial Administration & Development (substitute for PADM 6110 Public Budgeting)

Additional Concentration Courses

PADM 4800 Overview of the Nonprofit Sector

PADM 4800 Collaboration, Partnership & Coalitions Building

PADM 4800 Nonprofit Leadership (Leadership and Courage)

Financial Aid

Assistantships for nine and 12 months may be available for a limited number of qualified applicants. Competitive, renewable graduate assistantships are available each year for both Masters and Ph.D. students from the Department of Political Science.

Changes

Students should check with the College about any revisions approved for the program, but which may not be reflected in this catalog.

Romance Languages

Master of Arts Program

The Master of Arts in Romance Languages (French or Spanish Option) offers the student a concentration in one of two areas: language/culture/civilization or literature. The program both prepares students for further graduate study leading to the degree of Doctor of Philosophy and provides training for teachers of French or Spanish in secondary schools and colleges. It also offers the opportunity for rigorous advanced study in the humanities to qualified persons from nonacademic professions.

Admission

To be admitted to graduate studies in Romance Languages, a student must present an undergraduate record which indicates a high standard of achievement, normally with an overall B average. In addition, the Foreign Language Department will review the Graduate Record Examination scores and letters of recommendation. The Department of Foreign Languages may grant full or conditional admission. Students admitted on a conditional basis must fulfill the conditions imposed by the department in addition to the regular requirements for the degree. Students with the bachelor's degree in fields other than French or Spanish may be admitted on this conditional basis and allowed to make up deficiencies.

Master of Arts in Romance Languages Degree Requirements

A. Language/Culture/Civilization.
   1. 33 credits in course work with at least 15 in courses numbered over 6000 or 30 credits in course work with at least 15 in courses numbered over 6000, including up to 6 credits in thesis research.
   2. A "B" average in all courses.
   3. Satisfactory performance on a comprehensive examination (written and oral) which will test the student in three areas of linguistics/civilization and in one period of literature, areas and a period which he/she may select from those indicated in the Reading List for the M.A. comprehensive exam.
   4. Reading knowledge at the 2002 proficiency level of a second Romance Language (French, Spanish, Portuguese, Italian) or Latin.

B. Literature.
   1. 30 credits in course work with at least 15 in courses numbered over 6000, including up to 6 credits in thesis research or 33 credits in coursework with at least 15 in courses numbered over 6000.
   2. A "B" average in all courses.
   3. Satisfactory performance on a comprehensive examination (written and oral) which will test the student in three periods of literature and one area of linguistics/civilization, periods and an area which he/she may select from those indicated in the Reading List for the M.A. in comprehensive exam.
   4. Reading knowledge at the 2002 proficiency level of a second Romance Language (French, Spanish, Portuguese, Italian) or Latin.
   5. All students admitted to the graduate program will be referred to the Departmental Coordinators of Graduate Studies, who will guide each student in selecting and following a sound program of study suited to needs and level of preparation. This program may, in individual cases, involve more course work than is specified in the general requirements for the degree. For purposes of clarification, it should be understood that the descriptions of 6000-level courses in the pages below

are only categorical and that narrowed topics are always chosen for study within these broad categories.

The comprehensive examination is designed to test the candidate's knowledge of the language/culture/civilization or of the literature of his/her chosen field of study. The examination may be taken only after the candidate has passed the reading knowledge examination in a foreign language other than the major language area and has completed all of the course work. Ordinarily, the examination will be devoted to course work undertaken for the master's degree.

The thesis is written under the supervision of an adviser assigned to the student by the Coordinators of Graduate Studies in Romance Languages. Credit for Romance Languages 7000 (Thesis Research) is granted only after the thesis has been approved by a committee appointed by the Dean of the Graduate School and after the candidate has passed a one-hour oral examination on the thesis administered by this committee.

Financial Aid

Assistantships in the Department of Foreign Languages are available for a limited number of qualified applicants each year. Requests for application forms and for additional information should be addressed to the Coordinator of Graduate Studies in Romance Languages.

Sociology

The Master of Arts degree in Sociology provides advanced training for students and serves the employment needs of the larger New Orleans community. The dual mission of the program prepares students to pursue doctoral work in sociology and/or assists students in furthering their career goals through developing and upgrading research and analytical skills. The department offers a comprehensive program in sociology with special concentrations in the sociology of gender and environmental sociology.

Admission

Admissions criteria include a good undergraduate record, three letters of recommendation, and satisfactory scores on the Graduate Record Examination. Students must submit applications to the Department of Sociology. Students may also apply for graduate assistant positions. Students having the bachelor's degree in fields other than Sociology may be admitted, but are typically required to take an undergraduate theory course for which they receive graduate credit.

Master of Arts in Sociology Degree Requirements

M.A. students in Sociology may pursue a traditional thesis option, an applied sociology option, or a non-thesis option.

Students who pursue the thesis option must complete a minimum of 30 hours of course work at the graduate level which includes a core of required courses, electives. They must prepare a thesis and pass an oral examination covering the thesis topic.

Students who pursue the non-thesis option must complete 36 hours of course work, including a required course in qualitative methods.

Students selecting the applied sociology option must complete 30 hours of credit, write a research report based on two semesters of work in a public or private organization and pass an oral examination covering the completed report.

Financial Aid

Teaching and research assistantships are available to qualified applicants each academic year, with a maximum appointment of two years.

GRADUATE PROGRAMS IN SCIENCES

Doctor of Philosophy in Engineering and Applied Science

The Doctor of Philosophy in Engineering and Applied Science is an interdisciplinary, integrative degree involving faculty from the College of Engineering and the College of Sciences. The program is particularly suited to the emerging trends in the scientific and engineering communities.

Admissions

Admission to the doctoral program is based on reasonable evidence that the applicant will prove capable of scholarly research on a broad intellectual foundation. All students enrolling in the program must have a Master's degree from an accredited college or university in engineering, physics, mathematics, earth and environmental sciences, computer science, or a closely related field, or be willing to complete coursework required in an existing Master's program in one of the participating departments at UNO while pursuing the Ph.D. Admission decisions will be based primarily on grade-point average, Graduate Record Examination scores, and letters of recommendation. Foreign applicants (non-English speaking countries) must also have a satisfactory TOEFL score.

Doctor of Philosophy in Engineering and Applied Science Degree Requirements

Students enrolled in the program must satisfy all general requirements of the UNO Graduate School. Following are the formal procedural requirements for students to receive the Ph.D. degree in Engineering and Applied Science. Ph.D. candidates must complete a minimum of 51 semester credit hours of graduate course work in an approved program beyond the Bachelor's degree, not including dissertation writing. The credit hours may include up to 30 semester hour credits obtained in a Master's degree program, if the area of the Master's degree is relevant to the doctoral program. Up to six of these 30 credits may be for thesis research. In addition, a doctoral dissertation based on the results of original research under the guidance of a faculty committee and defended in a public examination is required for the doctoral program. At least 30 semester hours of dissertation credit must be earned.

Departments participating in the program are Civil and Environmental Engineering, Electrical Engineering, Naval Architecture and Marine Engineering, Computer Science, Earth and Environmental Sciences, Mathematics, and Physics. The

student's dissertation advisory committee will consist of at least five members. No more than three can be from any one department. There must be at least one committee member from each of the colleges of Engineering and Sciences. Program qualification is administered by the department of the principal advisor(s). It is based on material in a typical departmentalized master's degree program, or equivalent. Courses are chosen with the consent of the dissertation advisory committee. The committee shall consider the interdisciplinary nature of the program when they approve the courses. A minimum of nine credits (three courses) must be taken in each college. A General (comprehensive) Examination will be administered by the dissertation advisory committee. The examination will be based on material in the student's program of study. After passing the General Examination the Ph.D. student is expected to write a dissertation prospectus and defend it before the dissertation advisory committee. After a successful defense and committee approval of the prospectus the student may pursue research leading to the dissertation. (The student may register for a maximum of 12 dissertation credits before successful defense and approval of the prospectus provided that Program Qualification has been successfully completed.) The dissertation should reflect the interdisciplinary nature of the program. There must be a final public defense of the dissertation administered by the dissertation advisory committee.

Financial Aid

Teaching and research assistantships are available to qualified graduate students on a competitive basis.

Master of Arts in Science Teaching

Master of Arts in Science Teaching Degree Requirements

The degree can be earned by completing a non-thesis program consisting of 33 credit hours of course work. The program requires 21 hours of science courses including at least six hours in each of two major science areas. The major science areas are Biological Sciences, Chemistry, Earth and Environmental Sciences, Mathematics, and Physics. In addition, at least 12 of these hours must be in courses at the 6000 level. Six credit hours of approved Education course work related to the student's area of scientific specialization are also required. The remaining hours may be taken in a major science area or a cognate area such as Education, Computer Science or Geography. A minimum of 15 hours must be at or above the 6000 level.

The program requires an overall B average (3.0) or better in formal course work.

Biological Sciences

Program of Study

The Department of Biological Sciences offers a Doctoral Degree in Conservation Biology and a Master of Science in Biological Sciences. Both degrees feature an integrated program of course work and independent research. The Doctoral program provides students with a broad knowledge of current issues in Conservation Biology, with opportunities for specialized research training in conservation ecology, conservation genetics, and reproductive biology. In the MS program, there are three options available to suit student interests: general biological sciences; biotechnology emphasis; and biomedical emphasis. The latter two feature research opportunities at the U.S. Department of Agriculture Southern Regional Research Center or the LSU Health Sciences Center, respectively.

Admission

Applicants are evaluated by the Department of Biological Sciences graduate committee. The committee will consider the student's previous academic record, Graduate Record Examination scores, and letters of recommendation. Acceptance usually requires a commitment from a faculty member to serve as temporary advisor for the first academic year. Entering students may be required to take undergraduate courses to correct deficiencies in basic areas of biology.

Financial Aid

Financial support in the form of stipend and waiver of tuition may be provided to Ph.D. and M.S. students. There are commonly three forms of financial support: teaching assistantships, research assistantships, and fellowships.

Doctor of Philosophy in Conservation Biology

Degree Requirements:

Doctoral students are required to complete a minimum of 60 semester hours beyond the baccalaureate degree. Specific courses will be selected in consultation with the advisory committee and will depend on the research objectives and level of the student's preparedness for those objectives. A minimum of 18 credit hours of course work must be at the 6000 level.

The following courses or appropriate substitutions are required:

1. Biological Sciences 6022, Scientific Communication (2 credit hours).
2. A minimum of two 6000-level graduate lecture courses in biological sciences (6 credit hours).
3. A minimum of one two-unit graduate seminar course (2 credit hours).
4. One course in statistics course taken at the graduate level (3 credit hours).
5. Demonstrated proficiency in a foreign language.*
6. Students must maintain a cumulative GPA of 3.0 in graduate coursework. Courses with the grade of C may not be applied toward the degree requirements.

* In case where a foreign language is not appropriate for a student's research goals, a course providing more appropriate skills such as a computer language course may be substituted with the approval of the student's advisory committee.

Up to 12 hours of graduate-level credit can be taken previous to admission into the Ph.D. program may be applied towards the minimum of 60 hours required for the doctoral degree. However, only six of these hours can be applied to

reduce the requirement for 18 hours of 6000-level courses. Any transfer of credits is subject to approval by the student's advisory committee and the graduate coordinator.

Typically, the above requirements should be satisfied during the first two years of study. In addition, after successfully passing the General Examination (see below), students are required to take a minimum of 12 credit hours of Biological Sciences 7050, Dissertation Research.

Advisory Committee:

Each Ph.D. student has an advisory committee that directs the coursework and research. Students are expected to select a faculty member from the Department of Biological Sciences to serve as chair of the advisory committee by the end of the first semester in the graduate program. By the end of the second semester, the advisory committee is expanded to a minimum of three members. The committee is enlarged from three to five members prior to the general examination (see below). Members of the advisory committee must be members of the graduate faculty, and at least half must be faculty in the Department of Biological Sciences.

Qualifying Exam:

Students in the Ph.D. Program must pass a qualifying exam prior to the end of their second year in the program. The purposes of the exam are to address deficiencies in the student's preparation and to identify the general area of dissertation research. Student's preparation in the biological sciences is assessed by the Biology Subject test of the Graduate Record Examination (GRE), which must be taken within one year following admission into the program (if not taken prior to admission). Students must score above the 50th percentile in two section tests and above the 75th percentile in one section test. Lower scores require that the student pass a course in the corresponding area with a B or better. Courses addressing potential deficiencies should be completed prior to the qualifying exam. The exam also includes a brief prospectus of the student's plan for dissertation research. The format of the prospectus will be determined in consultation with the advisory committee.

General Exam:

Students in the Ph.D. program must pass a general exam prior to the end of their third year in the program. The general exam includes a written proposal for dissertation research, a public presentation, and a defense of the proposal to the student's advisory committee. The format of the proposal will be determined in consultation with the advisory committee. A student failing the general exam may retake the exam one time, as long as the three year time limit has not expired. Students not passing the general exam by the end of the third year are subject to removal from the Ph.D. program.

Dissertation and Final Exam:

A dissertation embodying original research in a specific area in conservation biology is a requirement for the Ph.D. the dissertation must be presented in a seminar open to the public, defended in an oral final examination, and approved by the student's advisory committee.

Master of Science in Biological Sciences:

Master of Science students must complete a minimum of 30 credit hours beyond the baccalaureate, which must conform to the following requirements:

1. A maximum of 6 credit hours of Thesis Research (BIOS 7000).
2. A minimum of 6 credit hours of 6000-level lecture or lecture/laboratory courses.
3. A minimum of 4 credit hours of graduate seminar courses (which may include Scientific Communication, BIOS 6022).
4. The remaining 14 credit hours must be at the 4000G or 6000 level and may not include more than four credit hours of Biological Problems (BIOS 6090).
5. A minimum of 12 of the 24 non-thesis credit hours must be in the Department of Biological Sciences.
6. Students must maintain a cumulative GPA of 3.0 in graduate coursework, and a maximum of three credit hours of graduate coursework with the grade of C may be applied to the degree requirements.
7. Students in the biomedical emphasis must have a minimum of 3 credit hours of course work from the LSUMC School of Graduate Studies.

Up to 12 hours of graduate-level credit can be taken previous to admission into the M.S. program may be applied towards the 30 hours required for the M.S. degree. Any transfer of credits is subject to approval by the student's advisory committee and the graduate coordinator.

Advisory Committee:

Each M.S. student has an advisory committee that directs the coursework and research. In the first semester in the M.S. program, the student selects a faculty member from the Department of Biological Sciences to serve as chair of the advisory committee. By the end of the second semester, the advisory committee is expanded to a minimum of three members. Members of the advisory committee must be members of the graduate faculty, and at least half must be faculty in the Department of Biological Sciences.

Thesis:

The Master of Science degree program requires a thesis embodying original research in a specialized area. The thesis must be presented in a seminar open to the public, defended in an oral final examination, and approved by the student's advisory committee.

Dissertation and Final Exam:

A dissertation embodying original research in a specific area in conservation biology is a requirement for the Ph.D. The dissertation must be presented in a seminar open to the public, defended in an oral final examination, and approved by the student's advisory committee.

Master of Science in Biological Sciences Degree Requirements

Master of Science candidates are required to complete a minimum of 30 credit hours, beyond the baccalaureate, which must conform to the following requirements:

1. A maximum of six credit hours of Thesis Research (BIOS 7000),
2. A minimum of six credit hours of 6000-level lecture or lecture/laboratory courses,
3. A minimum of four credit hours of graduate seminar

courses (which may include Scientific Communication, BIOS 6022).

4. The remaining 14 credit hours must be at the 4000G or 6000 level and may not include more than four credit hours of Biological Problems (BIOS 6090).
5. A minimum of 12 of the 24 non-thesis credit hours must be in the Department of Biological Sciences.
6. Students must maintain a cumulative GPA of 3.0 in graduate coursework, and a maximum of three credit hours of graduate coursework with the grade of C may be applied toward the degree requirements.
7. Students in the biomedical emphasis must have a minimum of 3 credit hours of course work from the LSUMC School of Graduate Studies.

Up to 12 hours of graduate-level credit taken previous to admission into the M.S. program may be applied towards the 30 hours required for the M.S. degree. Any transfer of credits is subject to approval by the student's advisory committee and the graduate coordinator.

Advisory Committee:

Each M.S. student has an advisory committee that directs the coursework and research. In the first semester in the M.S. program, the student selects a faculty member from the Department of Biological Sciences to serve as chair of the advisory committee. By the end of the second semester, the advisory committee is expanded to a minimum of three members. Members of the advisory committee must be members of the graduate faculty and at least half of the members of the advisory committee must come from the department of Biological Sciences.

Thesis:

The Master of Science degree requires a thesis embodying original research in a specialized area. The thesis must be presented in a seminar open to the public, defended in an oral final examination, and approved by the student's advisory committee.

Biomedical Sciences Concentration

Based upon a collaborative agreement between the University of New Orleans and the Louisiana State University Medical Center School of Graduate Studies–New Orleans, graduate students interested in developing skills and expertise in research areas associated with biomedical applications may take courses and conduct research leading to the Master of Sciences degree with a Biomedical Sciences concentration. Students in good standing may enter the program with the approval of their major professor, their advisory committee, and in collaboration with a graduate faculty member at the LSUMC School of Graduate Studies. The faculty member at LSUMC School of Graduate Studies will become a member of the student's advisory committee. A minimum of three credit hours of courses will be taken at the LSUMC School of Graduate Studies. Thesis research may be done at either or both institutions.

Chemistry

Admission

After the student has been accepted by the Graduate School, admission to graduate study in chemistry will be determined by the department upon the basis of Graduate Record Examination scores and the recommendations received in the application.

Programs in Chemistry

The Department of Chemistry offers both Masters' and Doctoral programs. Both the M.S. and the Ph.D. are research degrees and require an original investigation by the student. Students may choose to pursue the Ph.D. degree directly from the baccalaureate degree, or after earning an M.S. degree.

Financial Aid

Teaching assistantships are available to qualified graduate students. Research assistantships supported by grant funds of individual faculty members are also available. Summer support is available in each type of assistantship. The amount paid is proportionately scaled to the academic year stipend.

Master of Science in Chemistry Degree Requirements

Upon entrance of the graduate program, each student will be given placement examinations covering undergraduate preparation in the major areas of chemistry. Results of these tests will provide a basis for selection of the courses to be pursued during the student's first year.

The minimum requirement for the degree of Master of Science is 18 credit hours of graduate course work. At least nine hours must be concentrated in one of the divisions of chemistry. In addition, a minimum of six hours must be taken across two other chemical divisions. With the approval of the student's thesis committee and the department chair, the additional three may be taken in graduate level non-chemistry courses. Also required for the Master' degree are nine hours of research/thesis (at the 7000 level), and three hours of credit in CHEM 6095 (Seminar) for a total of 30 semester hours. The candidate must obtain an overall B (3.0) average in formal course work, a B (3.0) average in the major area and a 2.75 average outside of the major area.

Courses at the 4000-level can only be used for graduate credit with the approval of the student's thesis committee and the department chair.

For those who are working toward the Ph.D. but wish to earn a Master of Science degree, passing grades in three cumulative exams (see next section) are required in addition to the aforementioned 30 hours of credit. In place of the thesis, the department will substitute an article accepted for publication, describing a substantial piece of research done while enrolled in the Graduate School.

Doctor of Philosophy in Chemistry Degree Requirements

The requirements for the Ph.D. degree are as follows:

1. Placement examinations will be given to each student accepted for graduate work in chemistry in each of the major fields of chemistry. The student's graduate committee will consider the results of these examinations as well as the student's record in graduate course work in determining when the student is qualified.
2. The minimum requirement for the Ph.D. degree is 18 credit hours of graduate course work. At least nine hours must be concentrated in one of the divisions of chemistry. In addition, a minimum of six hours must be taken across two other chemical divisions. With the approval of the student's thesis committee and the department chair, the additional three may be taken in graduate level non-chemistry courses. Required reading courses (CHEM 6090, 6091, 6092, and 6093, one hour each) are not counted as part of the 18 hours. Six credits in CHEM 6095 (seminar) and at least 32 research credits in research/dissertation (CHEM 7050) go toward completion of the 60-semester hour minimum. Courses at the 4000-level can only be used for graduate credit with the approval of the student's thesis committee and the department chair.
3. To become an applicant for the doctorate, a student must pass the qualifying exam. This exam is administered trough a cumulative exam system in which the student must pass three separate examinations from a total of nine. All cumulative examinations must be passed within a two-year period following entrance into the program, and are offered six times during each academic year.
4. Before attaining full candidacy for the Ph.D. degree, a student must exhibit excellence, depth of understanding, and high professional attainment in the field by successful completion of the general examination for the doctorate. This examination takes place in the fifth semester of study, and consists of a written report and oral presentation to the thesis committee that summarizes the student's research accomplishments and future studies.

Computer Science

The Department of Computer Science offers a program of study leading to the degree of Master of Science. The program is designed to be flexible enough to accommodate the needs of two kinds of students: those who have recently completed an undergraduate degree in computer science and want to further their education, and those practicing professionals who want to acquire specific academic experience relevant to their work.

The department also participates in the Ph.D. in Engineering and Applied Science program. Interested students should refer to the beginning of this Graduate Programs in Sciences section for a description of the program, admission criteria, and curricular requirements.

Admission

After acceptance by the Graduate School, admission to the graduate program in computer science will be determined by the department on the basis of undergraduate academic record, three letters of recommendation, statement of purpose, and Graduate Record Examination scores. Admission to the program generally requires a composite score of least 1000 on the verbal and quantitative sections of the Graduate Record Examination; a mathematical background equivalent to Mathematics 2111, Mathematics 2112 and Mathematics 2721; and a computer science background including the equivalent of Computer Science 1583, Computer Science 2120, Computer Science 2125, Computer Science 2450, Computer Science 3301, and two upper-division courses. Students not meeting these requirements may be admitted to the program on a conditional basis, and must fulfill conditions imposed by the department in addition to the regular requirements for the degree. Students with bachelor's degrees in fields other than computer science may be admitted on a conditional basis.

Master of Science in Computer Science Degree Requirements

The department offers both thesis and non-thesis options in the master's program. All candidates for the master's degree must satisfy the following background, breadth, and depth requirements.

No course may be counted toward the satisfaction of more than one of these requirements.

1. Background requirement: the equivalent of Computer Sciences 4401 and 4501. Students who have not completed this requirement prior to enrollment are required to do so, for credit, as part of their curricula.
2. Breadth requirement: students must take one 6000-level course that counts toward the degree requirements (three semester hours) in each of three different concentration areas as listed below.
3. Depth requirement: students must take three additional courses that count toward the degree requirements (nine semester hours), of which at least two must be at the 6000-level. All courses must belong to the same concentration area (see list below). This concentration area must be different from the ones chosen to fulfill the breadth requirement.

The concentration areas, with specific sub-disciplines falling under each area, are given in the following table. A detailed list of courses included in each area can be obtained from the department.

Theoretical Computer Science and Programming Languages

- Computability
- Analysis of Algorithms and Complexity
- Formal Languages and Automata
- Combinatorics and Graph Theory
- Formal Semantics and Type Theory
- Logic
- Programming Languages
- Compiler Construction

Systems and Network

- Operating Systems
- Hardware Architecture
- Parallel and Distributed Systems
- Networks

- Protocols

Software Systems
- Algorithm Design
- Data Structures
- Programming Methodologies
- Software Engineering
- Distributed Software Engineering
- Software Architectures
- Software Components

Information Assurance
- Defense of information and information systems by ensuring their availability, integrity, authentication, confidentiality, and non-repudiation.
- Cryptology

Computer Security
- Information Protection
- Secure Information Exchange

Database Systems and Distributed Applications
- Data Modeling
- Database Systems and Distributed Database Systems
- Data Query Languages
- Programming and Architectures for the Web
- Spatial Database Systems
- Data Mining
- Mobile Computing

Computer Graphics and Visual Computing
- Computer Graphics
- Image Processing
- Data Visualization
- Visual Programming Languages

Artificial Intelligence
- Robotics
- Computer Vision
- Pattern Recognition
- Evolutionary Computing
- Expert Systems
- Machine Learning
- Data Mining

Students completing the master's degree with thesis must maintain a minimum 3.0 average in all courses taken to satisfy the degree requirements, and a minimum 3.0 average in all 6000-level courses taken excluding thesis research. Each student is required to submit an acceptable thesis and give a satisfactory defense of the thesis. Thirty semester hours are required, no more than six of which may be thesis credit. No more than nine hours may be at the 4000 level. Up to six hours may be taken in approved graduate courses outside of Computer Science. Students choosing Information Assurance as their concentration must select the thesis option.

Students completing the master's degree without a thesis must maintain a minimum 3.0 average in all courses taken to satisfy the degree requirements, and a minimum 3.0 average in all 6000-level courses taken. Each student is required to give a satisfactory performance in a comprehensive examination covering course work. Thirty-six semester hours are required, no more than 12 of which may be at the 4000 level. Up to nine hours may be taken in approved graduate courses outside of Computer Science.

All graduate students are expected to participate in the weekly departmental seminar.

Earth and Environmental Sciences

The department of Earth and Environmental Sciences offers an exciting program of study leading to the degree of Master of Science.

Four concentrations of study are offered through the EES graduate program of study:
1. Coastal science and restoration,
2. Environmental sciences and policy,
3. Geology and,
4. Oil/gas geology.

Admission criteria and curricular requirements are described below.

The department also participates in the Ph.D. in Engineering and Applied Science program. Interested students should refer to the beginning of the Graduate Programs in Sciences section for a description of this program, admission criteria, and curricular requirements.

Admission

After the student has been accepted by the Graduate School, admission to graduate study in Earth and Environmental Sciences will be determined by the department on the basis of undergraduate academic record, letters of recommendation, and the Graduate Record Examination aptitude and advanced scores.

Financial Aid

Teaching assistantships are available to qualified graduate students. Research assistantships supported by grant funds of individual faculty members are also available.

Master of Science in Earth and Environmental Sciences

Degree Requirements

The minimum requirement for the degree of Master of Science is 24 credit hours of course work and six hours of thesis research credit for a total of 30 credit hours. Nine of the 24 hours of coursework must be earned in courses numbered above 6000. Credit is not given for M.S. students in GEOL 4005, 4006, 6005, and 6006.

Each graduate student is expected to participate in the weekly seminar, Geology 6090. A final comprehensive examination and a thesis are required of each candidate upon completion of course and thesis work.

Mathematics

The Department of Mathematics offers a program of study leading to the degree of Master of Science. The program is designed to provide a sound preparation for continued study toward a Ph.D. degree as well as prepare students for careers in business, government, industry, and teaching. The program provides courses for those interested in the modern applications of mathematics, the pure aspects of mathematics, or statistics.

The department also participates in the Ph.D. in Engineering

and Applied Science program. Interested students should refer to the beginning of this Graduate Programs in Sciences section for a description of the program, admission criteria, and curricular requirements.

Admission

Admission to graduate study in mathematics will be determined by the Graduate School and the Department of Mathematics. Mathematical maturity and sufficient knowledge for efficient and timely advancement in the graduate program are essential.

Students who wish to enter the graduate program should prepare themselves by successfully completing an undergraduate program that includes the equivalent of at least 18 semester hours of upper division mathematics courses. This undergraduate program should include the equivalent of these courses: Mathematics 3512, 4101, and 4102. Any student who has been admitted to graduate study in mathematics, but who has not completed the equivalent of these three courses, must complete the equivalent of these three courses as soon as possible. (Note: Graduate credit is not given for these three courses.)

Financial Aid

Graduate Assistantships are available to a limited number of qualified applicants. Students who would like to apply for a Graduate Assistantship should contact the Graduate Coordinator in the Mathematics Department.

Master of Science in Mathematics Degree Requirements

The general regulations of the Graduate School, set forth elsewhere in this catalog, apply to the graduate program in mathematics. The departmental requirements for the Master of Science Degree are given below. The student must complete one of the following three sets of courses:

1. Mathematics 4221, 4224, 4251, 4310, 4411, 4230 or 6251, 6211 or 6411, 6221 or 6224;
2. Mathematics 4411, 4511, 4611, 6450, and at least three of the following: 4213 4512, 4518, 4711, 4721, 6242, 6411, 6451, 6611;
3. Mathematics 4511, 6301, 6304, 6311, 6312, 6341, 6342.

These three different sets of courses represent the following three areas of mathematics:

1. applied mathematics,
2. pure mathematics, and
3. statistics.

The student must complete at least 18 hours of 6000-level courses in the Mathematics Department. The student must obtain at least a 3.0 average in all 6000-level courses taken, excluding Thesis Research, whether or not the course is offered for degree requirements. The total number of semester hours required is 36. The student must give a satisfactory performance on a comprehensive examination that covers courses given for graduate credit. The student must complete at least two sequences of courses in the Mathematics Department, at least one of which must contain a 6000-level course. (A sequence is two courses which cover closely interrelated material; for example, 4221-6221 or 6450-6451.) The choice of sequences must be approved by the department.

The student is given the choice of whether or not to write a Master's Degree Thesis. Students who choose to write a thesis must give a satisfactory performance on an oral presentation of the thesis.

Physics

The Physics Department offers the MS degree in Applied Physics and the MS degree in Physics. The MS in Physics requires original research on the part of the student. The MS in Applied Physics has thesis and non-thesis options.

The department currently has strong research programs in theoretical and computational aspects of acoustics, geophysics, electromagnetics, continuum mechanics, and astrophysics. Excellent experimental research activities are being conducted in condensed matter and materials physics, magnetism, spintronics, surface physics, and observational astronomy.

The department also participates in the Ph.D. in Engineering and Applied Science program. Interested students should refer to the beginning of this Graduate Programs in Sciences section for a description of the program, admission criteria, and curricular requirements.

Admission

The student should have successfully completed a baccalaureate degree program at a university or college approved by a recognized accrediting agency. The student's record should indicate a high level of performance and promise, particularly in the field of physics.

After the student has sent the Graduate School application to the Admissions Office, admission to graduate study in physics will be determined by the Department of Physics on the basis of the student's previous academic record, scores on the general portion of the Graduate Record Examination, and (for financial assistance) letters of recommendation. Requirements for admission without deficiencies are general chemistry, mathematics through differential equations, and satisfactory coursework in the major areas of classical physics.

Financial Aid

Teaching assistantships are available to a limited number of qualified applicants. Research assistantships and fellowships supported by grant funds of individual faculty members are also available.

Master of Science in Applied Physics Degree Requirements

The M.S.. in Applied Physics provides maximum flexibility for each graduate student in designing a program of study which combines a core of fundamental physics with a strong companion course of studies in applied physics or a related area of science or engineering. Close cooperation between the Physics Department and representatives from the student's specialty area will assure an interdisciplinary climate for study and research.

The Department offers both thesis and non-thesis options in the Applied Physics program. In the thesis option, the minimum requirements are 24 hours of coursework and six hours of thesis research , for a total of 30 semester hours. In the non-

thesis option, the minimum requirement is 33 hours of coursework. In both options the graduate work must include at least 18 hours of physics and 9 hours in a specialty area (which may be physics) . At least 18 hours of work must be at a level of 6000 or above. Each graduate student is expected, to participate in the weekly seminar, Physics 6198. (A maximum of one hour credit in Physics 6198 may be used to satisfy program requirements.) Furthermore, each MSAP student must demonstrate a proficiency in classical mechanics and electrodynamics at or above the levels of Physics 4302 and Physics 4503.

After coursework is substantially complete, the candidate will be required to take a comprehensive examination. In the case of students who elect to do a thesis, the comprehensive examination will be an oral one in which the questions will be primarily on the thesis and related matters.

Master of Science in Physics Degree Requirements

All candidates must attain a level of proficiency in the areas of electromagnetic theory, advanced mechanics, and quantum mechanics as represented by Physics 6501, 6301, and 6401, respectively. Although there is no specific minor requirement, the student is expected to have earned a minimum of six semester hours in approved courses in mathematics beyond the level of differential equations as represented by Mathematics 2221.

The minimum requirement for the Master of Science degree in physics is 24 credit hours of coursework plus at least six hours of thesis credit. The thesis credit is given only after a satisfactory thesis has been submitted. Of the 24 credit hours of coursework a minimum of 18 must be in physics of which at least 12 are taken in courses numbered above 6000. Each graduate student is expected, to participate in the weekly seminar, Physics 6198. A maximum of one hour credit in Physics 6198 can be used to satisfy program requirements.

A comprehensive final examination, which shall be either written or oral or both, must be passed by the candidate in at least the major field and the thesis.

Psychology

Admission

An applicant is accepted for graduate work in psychology upon recommendation by the department and subsequent admission to the Graduate School. The department's recommendation for admission is based on the student's performance on the Graduate Record Examination, letters of recommendation, and on the student's academic performance. The department may recommend full or conditional admission. If admitted on a conditional basis, the applicant must fulfill the conditions imposed by the department.

Programs Offered

The department offers a Master of Science degree in Psychology and a Doctor of Philosophy degree in Psychology with specializations in Applied Biopsychology and Applied Developmental Psychology. The curriculum integrates coursework in basic psychology with research and practicum experience in applied psychology.

Students are expected to:

1. develop competence in one of the two major content areas of behavioral science represented in the department (e.g. biological and developmental psychology),
2. conduct research based theoretically in the student's major content area but focused on the application of behavioral science, and
3. develop a core of skills in the delivery of psychological and consultative services and gain experience in the roles of the behavioral scientist in medical, biomedical and/or applied-developmental settings.

Financial Aid

A limited number of teaching assistantships are available to qualified students. Research and service assistantships supported by faculty grants or contracts are also available.

Master of Science in Psychology Degree Requirements

All students must complete requirements for the M.S. degree while working on the Ph.D. requirements. A minimum of 40 credit hours is necessary for the M.S. degree, although some students may be required to take additional hours to remedy undergraduate training deficiencies or in order to meet particular career goals.

1. **General Core**: Core courses are required for all graduate students. They include Psychology 6311, 6312, 6050, 6091 (four credit hours), 6350, and 6550.
2. **Speciality Core**: In addition, each specialty recognized by the department has designated additional courses as core to their programs. All applied developmental students must take Psychology 6101, 6102, and 6610. All applied biopsychology students must take Psychology 6801, 6802, and 6810.
3. **Research Courses**: All students must register for research, Psychology 6090, each semester (excluding summer) they are not registered for thesis credit. A minimum of six hours of credit for Psychology 6090 is required.
4. **Minimum Grades**: A student who receives a C or lower in a core course (general or speciality) or who drops a core course while earning lower than a B will be dropped from the program. If a student receives a C or less in a non-core course, that course must be repeated in order to earn graduate credit. All students must maintain a B average for all courses in order to remain in the psychology graduate program.
5. **Thesis**: Every student is required to complete a thesis based on her or his own original research that clearly demonstrates ability to identify significant problems, design and conduct scientific studies, and report findings in an appropriate fashion. The thesis research must be of publishable quality. A minimum of six credit hours of thesis research, Psychology 7000, is required, although the student must be registered for thesis research each semester he or she is working on it until it is accepted by the thesis committee. An oral defense of the thesis is required.
6. **Comprehensive Examination**: Every student must pass a

Comprehensive Examination after completing the first year core courses.

Doctor of Philosophy in Psychology Degree Requirements

After completion of the masters' requirements, students must pass a Qualifying Examination in order to continue to work toward a doctoral degree. During the entire period of work toward the doctorate, a student's program of study is guided by a doctoral advisory committee. The full advisory committee consists of the major professor who acts as chairperson, one or more representatives of at least one minor field outside, and at least three other graduate faculty members of the department. At least two members (including the chairperson) must be full-time members of the department, and at least one member must be a full member of the UNO graduate faculty. The committee is nominated by the chair of the department and is appointed by the Dean of the College.

The student's doctoral program of study must meet the following standards, which includes a minimum of 48 credit hours beyond those required by the M.S. degree.

1. **Doctoral Core Courses**: Applied Biopsychology students must take at least two (six hours) of the following courses: Psychology 6820, 6830, 6840, and 6895. Applied developmental students must take Psychology 6195, 6620, and 6801. The advanced seminar, Psychology 6195, must focus on advanced methods in developmental research.
2. **Electives**: All students are required to take nine hours of elective coursework. The nine hours of electives must be chosen from content courses; research and practicum beyond the minimum cannot be used as electives.
3. **Research**: In addition to the dissertation requirements outlined below, all students are required to take six hours of independent research, Psychology 6090. Also, students must register for at least three hours of research credit every semester they are not registered for dissertation hours (excluding summers).
4. **Teaching**: Three hours of Teaching of Psychology, Psychology 7010, are required of all students.
5. **Practica**: Twelve hours of practica are required for all students (Psychology 6191 or 6891). The purpose of the practica is to give students first-hand experience in an applied setting. The emphasis is on the application of experimentally-derived principles within the context of a service-delivery system. The practicum experience is arranged to provide an opportunity for students to begin to develop and practice a variety of skills in their areas of specialization.
6. **Minor**: The department requires that all doctoral students designate a specific minor area of study and to designate a faculty member to serve as the student's minor advisor. The minor advisor must serve on the student's Doctoral Advisory Committee. The intent of the minor requirement is to have the student outline a clearly delineated area of training that enhances the student's ability to find employment after receipt of the doctoral degree. Therefore, the choice of minor area is dependent on the student's specific career objectives. The minor will require9 hours of graduate course credit. Three hours of the required nine for the minor may also be used as a general elective. Three hours of practicum can be used toward the minor requirement, if this is approved by the student's minor advisor and Doctoral Advisory Committee.
7. **Social Basis of Behavior**: All students must satisfy a requirement of three credit hours or the equivalent in the area of social bases of behavior. This requirement may be satisfied by (1) coursework, such as Psychology 6400 Social Psychology, Psychology 6170 Socioemotional Development, or a directed readings course in social bases of behavior taken under Psychology 6090; or (2) demonstrating competence in social bases of behavior as part of the Ph.D. qualifying examination. If coursework is selected to satisfy the requirement, the credit hours earned may be considered part of the required six elective hours (unless the course is used to satisfy other requirements).
8. **General Examination**: All students must pass a General Examination which is administered when the student's coursework is substantially completed. The General Examination consists of the student writing and orally defending a literature review of the research area relevant to the proposed dissertation topic. The literature review and defense must demonstrate competence in the student's minor and applied areas. The exam will be conducted by the student's Doctoral Advisory Committee.
9. **Dissertation and Final Defense**: All students must complete a dissertation and register for a minimum of six hours of Psychology 7050. The student must be registered for dissertation research each semester he or she is working on it until the final examination is passed. The dissertation must demonstrate a mastery of research techniques, ability to do original and independent research, and skill in formulating conclusions that in some way enlarge upon or modify the existing knowledge base in psychology. The final examination is the oral defense of the dissertation. The final examination committee is appointed by the dean of the Graduate School. In most cases it will consist of the student's doctoral advisory committee, although the dean may add additional members.
10. **Internship**: A student may elect to take an internship and the student must be registered for Psychology 7191 or 7891 throughout the internship (minimum of six hours). It must involve the equivalent of 12 months of supervised full-time experience. It must be supervised by a licensed psychologist. To qualify as an internship, a minimum of 1,500 hours at the site must be completed within 24 months and it must be approved by the department. The internship is an intensive, advanced, supervised experience required to be a practicing psychologist. To be eligible for an internship, the student must have completed all coursework and passed the General Examination. Only the dissertation may remain.
11. **Minimum Grades**: A student who earns a C or lower in a core (either general or specially) or who drops a core course while earning lower than a B will be dropped from the program. If a student receives a C or less in a non-core course, that course must be repeated in order to earn grad-

uate credit. All students must maintain at least a B average in all courses in order to remain in the psychology graduate program.

12. **Additional Reasons for Dismissal**: A student is expected to make normal progress toward the degree to remain in the program and must be registered as a full-time student each semester in the program. A student may be dropped from the program if, in a semi-annual evaluation, the faculty determines that the student does not meet the standards of a Ph.D. candidate.

GRADUATE PROGRAMS IN URBAN AND PUBLIC AFFAIRS

The College of Liberal Arts through the School of Urban Planning and Regional Studies offers four graduate degrees: Master of Science in Urban Studies (MSUS); Master of Urban and Regional Planning (MURP); Master of Public Administration (MPA); and Doctor of Philosophy in Urban Studies.

The MSUS program is interdisciplinary and offers training in a broad range of urban phenomena for persons who desire to enter such fields as law, journalism, education, law enforcement and business, or to further their study of cities and regions at the doctoral level. The MURP program is fully accredited by the American Planning Association (APA) and consists of professional training in planning cities and regions with special emphasis on the social, economic, environmental, political and physical aspects of metropolitan areas. The objective of the program is to prepare students for planning careers in city, regional, state and federal agencies; private consulting firms; public service organizations; and other public or private institutions. The objective of the Master of Public Administration (MPA) program is to prepare students for entry or advancement in public or nonprofit organizations. The program of study leading to the Doctor of Philosophy in Urban Studies enables students of exceptional ability to undertake advanced study and original research in the fields of urban affairs, urban history and urban and regional planning. The doctoral program's mission is to prepare students for careers in scholarly activity, applied research, and policy analysis.

Admission for MSUS, MURP and MPA Programs

The College of Liberal Arts through the School of Urban Planning and Regional Studies faculty has instituted admission requirements for entrance into the MSUS, MURP or MPA programs in addition to those of the Graduate School, which include above average academic competence as evidenced in undergraduate work and Graduate Record Examination (GRE) scores or, in the case of the MPA program, the Graduate Management Admission test. The College of Liberal Arts through the School of Urban Planning and Regional Studies faculty will also take relevant experience into account, although it is not a specific requirement for application. Upon review of an applicant's credentials, the College of Liberal Arts through the School of Urban Planning and Regional Studies may grant full or conditional admission to the MSUS, MURP or MPA program. If admission is conditional, the student may have to complete additional courses of study in addition to those for the desired program.

Non-Degree Seeking Students

Persons who are interested in taking courses offered by the College of Liberal Arts through the School of Urban Planning and Regional Studies, but not seeking a degree, are encouraged to enroll as a "special student" (undergraduate) or as a "non-degree seeking student" (graduate). Consult the appropriate catalog or contact the College office for assistance.

Admission for Doctor of Philosophy in Urban Studies

The Ph.D. in Urban Studies program provides graduates with a solid foundation to conduct applied research and policy analysis outside of academic settings and for teaching and research in colleges and universities. The program emphasizes mastery of the literature and theory in a particular area of scholarship and mastery of research skills necessary to make significant original contributions to that field. The Ph.D. in Urban Studies program assists the College in its professional public service mission by providing high quality applied research and policy analysis for state, metropolitan, and local agencies and organizations. The doctoral program in urban studies draws upon the strengths of the University, particularly the College of Liberal Arts through the School of Urban Planning and Regional Studies, departments within the College of Liberal Arts, and the College of Liberal Arts through the School of Urban Planning and Regional Studies. CUPA is the administrative home of the program.

All students enrolling in the program must have a bachelor's degree from an accredited college or university. Preference is given to those who have completed a master's degree before entering the program. Admission decisions are based primarily on undergraduate/graduate grade-point average (GPA), Graduate Record Examination (GRE) scores, and letters of recommendation. Preferred levels of performance are a 3.0 or higher undergraduate GPA, a 3.6 or higher graduate GPA, and 1200 (combined raw scores for verbal and quantitative sections) on the GRE.

Doctor of Philosophy in Urban Studies Degree Requirements

A student admitted to the program must complete a minimum of 72 hours beyond the bachelor's degree. A postmaster's student will be able to transfer to the Program a maximum of 24 credit hours of course work with a grade of B or higher. Thus, a student must complete at least 48 hours of course work with a grade of B or higher while enrolled in the doctoral program at UNO. Also, up to 9 credit hours earned after receiving a master's degree may be transferred into the program. The courses proposed for transfer must be approved as part of the student's program of study within the college. These hours will include a core curriculum, a major and a minor filed of specialization, and a dissertation.

Fields of specialization include

1. urban affairs,

2. urban history, and
3. urban and regional planning.

Overview

72 credit hours beyond the baccalaureate degree 66 credit hours in the following four areas:

- Urban Studies Core (9 credit hours)
- Research Design(6 credit hours)
- Research Methods(9 or more credit hours)
- Research Competence(6 credit hours)

Major and Minor Fields of Study/Area of Specialization (42 credit hours)

Within the major field, students select a group of courses that provide a foundation in the theory and methods of that field of knowledge and a set of additional courses that constitute an area of specialization. Typically, foundation courses are completed as part of previous masters degree work and are transferred into the doctoral program. A student who does not have a masters degree in his or her major field should expect to take courses sufficient to demonstrate knowledge of the basic theory, concepts, and methods of that field.

Each student selects a group of courses that form an area of specialization within the major field of study. The College of Liberal Arts through the School of Urban Planning and Regional Studies supports areas of specialization in land use and environmental management and policy, social and cultural change, and urban development. As a rough rule of thumb, students should expect to take at least 15 credit hours of courses in their area of specialization. These courses may be in the College of Liberal Arts through the School of Urban Planning and Regional Studies or other departments of the University; they may be formal courses or independent studies.

The student defines his or her area of specialization in consultation with a faculty advisor. The courses must be mutually reinforcing and coherent; assure expertise in some body of knowledge, methods, or problem area; and provide the student with adequate skills and knowledge to do dissertation research as well as policy research in the area of specialization: knowledge of the body of relevant theory (usually by taking courses in a social science, history, planning or public administration); knowledge of relevant methodology (e.g., planning methods, statistics, qualitative methods); an ability to apply theory and methods to specific problems; and an ability appropriate research design and research methods.

Students may, at their own option, define a minor filed of study. Within the minor field, a student must complete at least 15 credit hours (some of which may be transfer credits) in a set of courses approved in advance by the student's advisor. Courses taken in the minor may constitute an independent body of knowledge, or they may support the area of specialization developed in the major.

Students should check with the College about any revisions approved for the program, but which may not be reflected in this catalog, or visit the CUPA website at http://www.cupa.uno.edu/.

Master of Science in Urban Studies Degree Requirements

The flexibility of the MSUS program has allowed students to pursue career fields that are emerging and may not be covered in more structured and traditional masters programs. For example, there is a strong subfield of study in Anthropology that is offered in conjunction with the UNO Department of Anthropology. Other linked areas are Cultural and Ecotourism linked with the Kabacoff School of Hotel, Restaurant, Tourism and Cultural/Arts planning with the Arts Administration Program of the UNO College of Liberal Arts. Links to those programs on the UNO Website, at http://www.cupa.uno.edu/, provide more detailed information for the applicant.

Overview

- 33 Total Hours
- 12-15 hours of required courses
- 15 hours of electives
- 3-6 hours of thesis

Master of Science in Urban Studies: Applied Urban Anthropology Concentration

Anthropology at UNO brings qualitative research methods and the insights of social theory to the study of the central questions in contemporary urban life. Students who choose to pursue the Urban Anthropology Track will work directly with faculty whose on-going research projects are at the leading edge of urban research methodology.

Students in the applied urban anthropology track will receive training in qualitative research methodologies and will gain valuable fieldwork experiences. These may include cultural preservation management projects, historic archaeology, policy evaluation, folklore research projects and internships in local government and non-profit organizations. Students will draw on the university's technological resources (including film, museums and, of course, computers) to present their own research. Urban anthropology track students are encouraged to attend and participate in professional conferences, where they can learn directly about how to communicate their results as well as network with their future colleagues.

Students should check with the College about any revisions approved for the program, but which may not be reflected in this catalog, or visit the CUPA website at http://cupa.uno.edu/.

Master of Urban and Regional Planning

The Master in Urban and Regional Planning program prepares graduates for a wide range of careers in the field of planning. Planners can choose to work for governmental agencies, private consulting firms or nonprofit organizations. Their chosen career can target such issues as creating safe, attractive and healthy neighborhoods; providing affordable housing; and building accessible, efficient and environmentally friendly transportation systems. Students have the opportunity to pursue internships for academic credit with selected agencies and private firms while they are in school. This "real world" experience helps students to become more competitive in the job

market upon graduation.

All MURP students will be required to show proof of having completed at least an acceptable introductory-level statistics course and an introductory-level economics course before entering the program, or will be required to complete such a course during their first semester of attendance.

Overview

- 45 total hours needed to complete the degree (excluding deficiencies or prerequisites)
- 24 credit hours of required courses
- 12 credit hours of courses in an area of specialization

Students should check with the department about any revisions approved for the program, but which may not be reflected in this catalog.

Master of Urban and Regional Planning: Areas of Specialization

Program Specializations

Students have a choice of three areas of specialization within the program. Each specialization requires 12 credit hours of coursework. Generally a student completes the thesis or final project within this program specialty. The three areas of specialization are Housing and Community Development/ Economic Development, Land Use/ Environment, and Historic Preservation. In addition, a specialization in Transportation Planning is under development.

Joint JD/ MURP Program

This program, unique in Louisiana, offers a combined planning degree and legal education through Loyola School of Law for those persons seeking a career in land use law and development. Applicants must apply separately and be admitted to the MURP program at UNO and to the Loyola School of Law. Normal degree requirements of each program are reduced by a common core of nine credit hours of approved elective courses that count toward both programs. The requirements for both degrees must be completed before either degree is awarded.

Financial Aid

Assistantships for nine months are available for a limited number of qualified applicants. The student will devote approximately half-time (20 hrs/week) to research work. In addition, a number of assistantships are located off-campus in planning and planning related agencies.

Master of Public Administration Degree Requirements

Prerequisites

- Microeconomics (3 hrs)
- Political Science or American Government (3 hrs)
- Unmet prerequisites should be made up early in the program.

Overview

- 42 total hours needed to complete the degree (excluding deficiencies or prerequisites)
- 27 hours of required courses
- 9 hours of electives
- 6 hours of thesis research and a thesis, or 6 hours of capstone courses and a final project. All masters students must include at least 15 hours of courses numbered 6000 or above in their programs of study.

Required Courses

- PADM 6010 The Profession of Public Administration
- PADM 6020 Bureaucracy and Democracy
- PADM 6110 Public Budgeting
- PADM 6160 Law and Ethics in Public Administration
- PADM 6401 Administrative Behavior
- PADM 6180 Human Resource Administration in the Public Sector
- PADM 6410 Technology in Public Organizations
- PADM 6201 Policy Analysis and Program Evaluation
- URBN 6001 Research Methods

Thesis/Final Project Option

Students must choose either the thesis or the final project option

Thesis Option. PADM 7000 Thesis Research (6 hrs) plus the thesis. Thesis students may take Capstone I in lieu of three hours of thesis research.

Final Project Option. This is an applied project completed in conjunction with a public service job or internship while enrolled in PADM 6901 and 6902 MPA Capstone I & II (3 hrs each).

Nonprofit Leadership Concentration

In conjunction with Metropolitan College's International Program in Nonprofit Leadership (IPNL), the MPA program offers a concentration in nonprofit leadership (NPL). The concentration consists of 15 hours: two courses taken in place of required courses, and three additional courses. NPL students must complete the following courses which are currently offered under PADM 4800: Substitutions for MPA Required Courses

- PADM 4800 Legal & Ethical Issues in the Nonprofit Sector (substitute for PADM 6160 Law and Ethics in Public Administration)
- PADM 4800 Financial Administration & Development (substitute for PADM 6110 Public Budgeting)

Additional Concentration Courses

- PADM 4800 Overview of the Nonprofit Sector
- PADM 4800 Collaboration, Partnership & Coalitions Building
- PADM 4800 Nonprofit Leadership (Leadership and Courage)

NPL students must also choose the thesis or non-thesis (final project) option. Thesis students may take PADM 6901 MPA Capstone I (3 hours) and PADM 7000 Thesis Research (3 hours).

Financial Aid

Assistantships for nine and 12 months may be available for a limited number of qualified applicants.

Changes

Students should check with the College about any revisions approved for the program, but which may not be reflected in this catalog, or visit the CUPA website at http://www.cupa.uno.edu/.

Courses of Instruction

Courses offered during the academic year covered by this catalog will be selected from those described on the following pages. The course number is shown to the left of the title. The significance of the four digit numbering system is:

First digit

0 indicates that the course does not carry degree credit
1 courses of freshman level or beginning courses
2 sophomore level, not open to freshmen
3 junior-senior level courses, not open to freshmen or, generally, to sophomores
4 junior-senior level courses which may be taken for graduate credit under certain circumstances, not open to freshmen or sophomores
6 graduate courses, open to students registered in the Graduate School only.

Departmental Permission is also required in each case.

Second digit

Many areas use the second digit to designate sub-areas within their areas. Otherwise the second digit has no significance.

Third digit

The third digit has no specific meaning except when it is the figure nine. A nine as the third digit means that the course content varies from semester to semester.

Fourth digit

The fourth digit has no specific significance unless it is the figure nine. A nine as the fourth digit indicates that the course is conducted on an honors level.

A student with less than 60 semester hours credit may not register for courses numbered 3000 or above. In addition to regular course requirements, graduate students who enroll in 4000-level graduate credit courses will be expected to complete other work assigned by the instructor. Courses numbered 6000 or above are open to graduate students only and require permission of the department offering the course before a student may enroll.

Shown on the same line with the title is the designation of the credit hours which the course carries. The credit hour value is generally based on the number of class hours per week. One hour of classroom work per week is usually valued at one credit hour. Some departments give one credit hour for two hours of laboratory work per week while some require three or more hours of laboratory work for one credit hour.

Normally, if the course consists solely of lecture, or lecture-discussion type meetings, the number of meetings per week will be the same as the credit hours given for the course and no statement is made as to the type or number of meetings per week. In other situations the type and number of meetings is usually stated.

Diversity

The University of New Orleans is committed to providing students with opportunities to learn about the diverse cultures that have and are continuing to shape contemporary American society.

The following are the different colleges and courses offered:

Academic Orientation
Accounting
Aerospace Studies
Anthropology
Arts and Sciences
Arts Administration
Biological Sciences
Business Administration
Chemistry
Chinese
Civil and Environmental Engineering
Computer Science
Cooperative Education-Business Administration Majors
Cooperative Education-Education Majors
Cooperative Education-Engineering Majors
Cooperative Education-General Studies Majors
Cooperative Education-Liberal Arts Majors
Cooperative Education-Sciences Majors
Education
Counselor Education
Curriculum and Instruction
Developmental Mathematics
Earth and Environmental Sciences
Economics
Educational Administration
Educational Foundations and Research
Electrical Engineering

Engineering
Engineering and Applied Sciences
Engineering Management
English
Environmental Sciences and Policy
Film, Theatre and Communication Arts
Finance
Fine Arts
Foreign Languages
French
Geography
German
Greek
History
Hotel, Tourism & Restaurant Administration
Humanities
Italian
Japanese
Journalism
Latin
Library Instruction
Library Science
Management
Marketing
Mathematics
Mechanical Engineering
Military Science
Music
Naval Architecture and Marine Engineering
Naval ROTC
Philosophy
Physics
Political Science
Psychology
Quantitative Methods-Business & Economics
Romance Languages
Sciences
Social Sciences
Sociology
Spanish
Special Education and Habilitative Services
University Success
Urban Studies
Master of Urban and Regional Planning
Master of Public Administration
Doctor of Urban Studies
Women's Studies

Academic Orientation

ACOR 1 New Vision Group Seminar **0cr.**
Instructions for students in the New Vision Program on the efficient management of academic and personal commitments which may improve academic performance at the university. Topics include effective study habits, time-management techniques, note-taking and test-preparation methods, and ways to develop and enhance desirable personal skills. Required of all New Vision students during their first term in the program. Students continuing in the program who did not earn a grade of P in the first term must repeat this course. Only grades of pass or fail are awarded.

ACOR 2 New Vision Seminar II **0cr.**
Prerequisite: pass ACOR 0001 with a P. This course will provide continued support for second semester New Vision students through on-line instruction to help students to make efficient and effective decisions regarding their academic, personal, career development. Topics will focus on study habits, career planning, the world of work, money management, and many more. In addition, students will have an opportunity to take advantage of all of the amenities offered through Blackboard. Grades of P or U are assigned for this course.

ACOR 1001 Academic Orientation I **1cr.**
Orientation to the educational resources of the University and development of learning skills which will aid the student in making a successful start in college. Topics in the "learning skills" portion include analytical and problem-solving skills, time management, and techniques of note-taking and test-taking. (Open to freshmen only. Two hours of lecture per week for one-half semester).

ACOR 1006 Academic Orientation II **1cr.**
The individual and the world of work. Lectures and activities designed to create individual and career awareness. Topics include choosing a major and careers, occupational-interest testing, and occupational-information resources. (Offered on a pass-fail basis. Two hours of lecture per week for one-half semester).

Accounting

ACCT 2100 Principles of Accounting **3cr.**
Offered each semester. Not open to students in remedial English or remedial mathematics. Not open to freshmen. An introduction to the accounting model and financial statement preparation with emphasis on the concepts and terminology needed to understand a typical corporate report. Topics covered include: current and long-term assets current and long term liabilities, stockholders' equity, revenues and expenses.

ACCT 2130 Management Accounting **3cr.**
Offered each semester. Prerequisite: ACCT 2100. Not open to freshmen. Not for credit toward a degree in Accounting. A study of the accounting process of the firm and its role in managerial planning, control, and decision-making; analysis and interpretation of financial statements.

ACCT 3090 Internship in Accounting **3cr.**
Students will engage in at least ten hours per week at the site of an assigned participating organization that directs the interns in specific projects relating to their majors. Students wishing to take this course should apply during the semester prior to the internship. This course may be repeated for a total of six hours of credit, of which only three hours can apply toward a B.S. degree in Accounting. Pass/Fail grading.

ACCT 3091 Internship in Accounting **6cr.**
Prerequisite: consent of department. Students will engage in work at the site of an assigned participating organization that directs the interns in specific projects relating to their majors. Students wishing to take this course should apply during the semester prior to the internship. Students working 30 hours or more per week may receive six hours credit in one semester, of which only three hours can apply toward a B.S. degree in Accounting. This course may not be repeated for credit. Students may not receive credit for both ACCT 3091 and ACCT 3090. Pass/Fail grading.

ACCT 3120 Accounting Lab **1cr.**
Prerequisite: ACCT 2100 concurrent enrollment in or credit for BA 2780 and concurrent enrollment in or credit for ACCT 3121. Practical

applications of the accounting cycle and internal controls using a practice case. The class meets for two hours once a week.

ACCT 3121 Intermediate Accounting I 3cr.
Offered each semester. Prerequisite: completion of ACCT 2100 with a grade of C or better. Not open to freshmen. A study of financial accounting with emphasis on the asset section of the balance sheet.

ACCT 3122 Intermediate Accounting II 3cr.
Offered each semester. Prerequisite: completion of ACCT 3121 with a grade of C or better. A study of financial accounting with emphasis on the liability and owner's equity sections of the balance sheet and the statement of cash flow.

ACCT 3123 Advanced Financial Accounting 3cr.
Offered each semester. Not open to freshmen. Prerequisite: Accounting 3122 with a grade of C or better and Accounting 3120. Financial accounting theory, concepts, methodology, and structure. Topics covered will include partnerships, business combinations, consolidations, and SEC reporting problems.

ACCT 3124 Governmental Accounting 3cr.
Offered each semester. Prerequisite: Completion of ACCT 3121 with a grade of C or better. Financial accounting theory, concepts, methodology, and structure. Topics covered, in addition to governmental accounting, include not-for-profit accounting, international accounting, estates and trusts, insolvency and troubled debt restructuring.

ACCT 3131 Cost Accounting I 3cr.
Offered each semester. Prerequisite: six hours of accounting. An introduction to the development and use of accounting information for internal business decisions. Topics include: cost terminology and classifications, methods of cost accumulation and analysis, budgets and standard costs, cost-volume-profit relationships, and other accounting fundamentals for production, marketing, and financing decisions.

ACCT 3141 Accounting Information Systems 3cr.
Offered each semester. Prerequisites: BA 2780 and three semester hours of accounting. Not open to freshmen. The integration of information flows of various segments of a business organization into an information system of the total organization, with emphasis on the accounting aspects of electronic data processing.

ACCT 3152 Tax Accounting I 3cr.
Offered each semester. Prerequisite: six hours of accounting. A comprehensive study of federal income tax concepts for the development of income and related deductions. The impact of tax considerations in business decisions.

ACCT 3161 Auditing 3cr.
Offered each semester. Prerequisites: ACCT 3122 with a grade of C or better or consent of department. Auditing ethics, standards, and procedures and their application by independent public accountants.

ACCT 3191 Independent Study 1-3cr.
Offered each semester. Prerequisite: approval of the directed individual study by the department chair and the supervising professor is required prior to registration. The student should refer to the COLLEGE OF BUSINESS ADMINISTRATION POLICY ON UNDERGRADUATE DIRECTED INDIVIDUAL STUDY available in the Accounting Department. The course is arranged individually in order to provide latitude for specialized study and research under the direction of a faculty member. Progress reports, readings, conferences, and research paper are required. May be repeated for up to six hours credit.

ACCT 3999 Senior Honors Thesis 1-6cr.
Offered each semester. This course is open to Honors Students only, with admission by approval of the Directors of the Honors Program in Accounting and the University Honors Program. The course may be repeated for credit for a total of six credit hours until a thesis is accepted following oral defense.

ACCT 4126 Survey of International Accounting 3cr.
Prerequisite: ACCT 3122 or consent of department. An overview accounting in an international context and related issues. Topics covered include the international accounting environment, classification schemes, comparative accounting practice, accounting standards, foreign currency, reporting and disclosure, auditing and taxation. Credit will not be given for this course and for ACCT 6126.

ACCT 4132 Cost Accounting II 3cr.
Prerequisite: ACCT 3131. Advanced work in the development and use of accounting information for internal business decisions. Topics include: structure of managerial accounting theory; cost classifications and methods of cost estimation; decision models; standards and control; accounting information for production, marketing, and financing decisions.

ACCT 4142 EDP Auditing and Adv Acct Info Systems 3cr.
Prerequisite: ACCT 3141 or equivalent. Information systems and accounting theory applied to advanced computerized information (electronic data processing or EDP) systems with emphasis on internal controls and auditing techniques.

ACCT 4150 Taxation for Business Decisions 3cr.
Not open to all accounting majors. A survey of federal income taxes including the study of the development of taxable income and deductions for individuals, partnerships, and corporations with application to business decisions and tax planning.

ACCT 4152 Tax Accounting II 3cr.
Offered each semester. Prerequisite: Accounting 3152 . Research methods in taxation. Intensive treatment of tax problems of partnerships, corporations, and fiduciaries. Study of federal estate and gift taxes.

ACCT 4153 Individual Tax Planning 3cr.
Prerequisite: Accounting 3152 or consent of department. Exploration of those areas most productive of tax saving opportunities for the individual. Timing of reporting income and deduction and the use of various tax-saving legal instruments will be covered.

ACCT 4154 Estate and Gift Taxation 3cr.
Prerequisite: consent of department. ACCT 4152 recommended. Taxation of gratuitous transfers under the federal estate and gift tax code. Emphasis will be given to the community property laws of Louisiana as they influence gift and estate taxation.

ACCT 4162 Advanced Auditing 3cr.
Prerequisite: ACCT 3161. Current auditing concepts and prospective developments in professional and internal auditing. Cases and readings used to illustrate applications of auditing standards, statistical sampling, professional ethics, and legal liability.

ACCT 4167 Internal Auditing 3cr.
Prerequisite: ACCT 3122 (with a grade of C or better) and consent of department. A study of internal auditing ethics, standards, and concepts. Students should apply a semester in advance for consent of the department. Students taking this course for graduate credit must complete an additional course project. Credit will not be given for both ACCT 4167 and 6167.

ACCT 4168 Operational Auditing 3cr.
Prerequisite: ACCT 3122 (with a grade of C or better) and consent of department. Operational, efficiency, and effectiveness audits, and

relevant internal auditing standards. Cases and readings used to illustrate internal auditing standards and applications of internal audit practices. Students taking this course for graduate credit must complete an additional course project. Credit will not be given for both ACCT 4168 and 6168

ACCT 4171 Survey of Governmental and Institutional Acct 3cr.
A study of internal budgeting and reporting systems, techniques of measurement and data collection, and preparation of financial statements for governmental bodies and non-profit organizations. A computer project, which entails the use of a spreadsheet, is required. Not open to accounting majors. For students with little or no previous work in accounting.

ACCT 4180 Oil and Gas Industry: Accounting Problems 3cr.
Prerequisite: six hours of accounting or consent of department. A study of current reporting practices and problems associated with accounting in the oil and gas industry. A review of the industry reporting requirements to state agencies, federal agencies, economic interest holders from both the operator and non-operator points of view, as well as general purpose financial statements.

ACCT 4190 Contemporary Accounting Topics 3cr.
Prerequisite: consent of department. A study in depth of one or more subjects currently of concern in the field of accounting. May be repeated for credit when the topics vary. No more than six semester hours of credit will be allowed.

ACCT 4195 Internship in Internal Auditing 1-3cr.
Prerequisite: Accounting 4167 and consent of department. (Pass/Fail) At least ten hours per week of learning experience under the general supervision of a faculty member and direct supervision of a professional internal audit manager or director. Students desiring to take this course should apply a semester in advance since enrollment is limited by the internships available. Pass/Fail grading is based on a written report by the professional supervisor, a written report by the student, and the faculty member's evaluation. Accounting majors cannot use this course as an accounting elective for degree credit. This course is not open for graduate credit. This course may be repeated for a total of three hours of credit.

ACCT 4400 Survey of Financial Accounting 3cr.
A user-oriented approach to the fundamentals of financial accounting. Emphasis will be placed on the interpretation of financial information and on the measurement of product costs as well as the consequences of business decisions. Not open to College of Business undergraduate majors or to graduate accounting students. This course may not be taken for graduate credit.

ACCT 6125 Studies in Accounting Theory 3cr.
Prerequisites: Accounting 2121 and 3122. A study of underlying concepts of financial accounting with application to problem areas. Critical analysis of current pronouncements on accounting postulates and principles.

ACCT 6126 International Accounting 3cr.
Prerequisite: Accounting 3122 or consent of department. Credit will not be given for both ACCT 4126 and ACCT 6126. The external and internal reporting problems associated with multinational business entities and other organizations. The objectives of the course are (1) to provide an overview of the international structures which have evolved in response to international accounting problems (2) to review the literature relating to these problems and (3) to develop the analytical capabilities necessary to deal with international accounting issues.

ACCT 6130 Advanced Accounting Analysis for Decision Making 3cr.
Offered each semester. Prerequisite: Accounting 4400 or 2100 and 2130. A study of the analysis of accounting and other data relating to alternative business possibilities as an aid to management decision making. Not open to students in the M.S. in Accounting program or students who have an undergraduate degree in accounting.

ACCT 6131 Accounting in Health Care Settings 3cr.
A survey of the financial and managerial accounting principles and procedures necessary to make strategic and operational decisions in a managed care environment. Topics include financial statement structure and analysis, cost accounting, budgeting, analysis of variances from budget, cost-volume-profit analysis, analysis of non-routine decisions, rate setting and current issues in accounting for health care. Not open to students in the M.S. in Accounting or the M.S. in Accounting-Taxation Option programs.

ACCT 6132 Strategic Cost Management 3cr.
Prerequisite: Accounting 3131 or 6130 or consent of department. An analytical and case approach to the study of the role of cost management information in the management of business and not-for-profit organizations. The use of cost management information is examined in strategic management, planning and decision making, management and operational control, and financial reporting.

ACCT 6133 Studies in Managerial Accounting 3cr.
Prerequisite: Accounting 3131 or 6130. Readings and research in accounting relative to internal management, including cost accumulation and control systems, decision systems, and contemporary issues in management accounting.

ACCT 6143 Seminar in Accounting Information Systems 3cr.
Prerequisites: Accounting 3141 or equivalent. To develop an understanding of the concepts of information systems, their design and operation, and to relate these concepts to the economic information requirements, information flows, decision criteria, and control mechanisms in the business organization.

ACCT 6150 Tax Factors in Management Decisions 3cr.
Prerequisite: consent of department. Credit will not be given for both ACCT 6150 and ACCT 4150. Tax consequences related to business decisions. Designed for students enrolled in the MBA program. Not open to students in the M.S. in Accounting program or students who have an undergraduate degree in accounting.

ACCT 6151 Federal Tax Practice Procedure and Report Writing 3cr.
Fall semester. Prerequisite: ACCT 3152 or consent of department. A course to acquaint the student with the organization of the Internal Revenue Service and its relation to practice, tax research techniques, and ethical tax practice.

ACCT 6153 Taxation of Corporations and Shareholders 3cr.
Fall semester. Prerequisite: ACCT 4152 or consent of department. ACCT 6151 is recommended. Analysis of the tax treatment, tax problems, and tax planning techniques involving transactions between corporations and their shareholders; transfers to a corporation; capital structure; dividends and preferred stock bailouts; and an introduction to corporate divisions and reorganizations.

ACCT 6154 Advanced Taxation of Corporations and Shareholders 3cr.
Prerequisite: ACCT 6153 or consent of department. Advanced analysis of corporate reorganizations and divisions; carryover of tax attributes; limitations; affiliated corporations; personal holding companies and collapsible corporations.

ACCT 6155 Tax Problems of Employee Retirement Plans 3cr.
Prerequisite: consent of department. Provides a working knowledge of the qualification and operating requirements of the various deferred compensation plans available under the current Internal Revenue Code.

ACCT 6156 Adv Taxation of Partners and Partnerships and Professional Corp 3cr.
Prerequisite: ACCT 4152 or consent of department. ACCT 6151 recommended. The study of the tax problems of service partnerships including such topics as dissolution of the partnership, sale of the partnership interest, and retirement provisions. The professional partnership will be compared with the professional corporation as to the advantages and disadvantages of each.

ACCT 6157 Consolidated Tax Returns 3cr.
Prerequisite: ACCT 6153 or consent of department. Federal income taxation of corporations filing consolidated returns. Emphasis will be given to the various provisions affecting the taxable income of the affiliated group of corporations including the treatment of various loss carryovers, credits, specially treated transactions, allocation of consolidated tax liability, earnings and profits, investment in affiliates, dividends, and disposition of stock of a subsidiary.

ACCT 6158 Taxation of Property Transactions 3cr.
Prerequisite: consent of department. Federal income taxation of property transactions including nontaxable exchanges, involuntary conversions, historic structures, equipment leasing, leasebacks, installment sales, tax shelters, and other related topics.

ACCT 6159 International Taxation 3cr.
Prerequisite: ACCT 3152 or consent of department. A study of the major topic areas in U.S. taxation of transnational transactions. Emphasis will be placed on the law affecting individuals and corporations. Some possible topics are the foreign tax credit, source of income rules, subpart F, intercompany pricing, foreign sales corporations, etc.

ACCT 6163 Seminar in Auditing 3cr.
Prerequisite: ACCT 3161. A study of advanced problems and current developments in auditing. Topics include auditing theory, practice, problems, ethics, legal environment, and other current topics.

ACCT 6164 Ethical Issues in Accounting 3cr.
Prerequisite: ACCT 6125 or consent of department. The study of major legal precedents and ethical issues facing the accounting profession utilizing case analyses.

ACCT 6167 Internal Auditing Concepts 3cr.
Prerequisites: ACCT 3122 (with a grade of C or better) and consent of department. A study of the concepts and standards of internal auditing with application to problem areas. Assigned project(s) will involve the use of critical analysis of internal auditing situations. Students should apply a semester in advance for consent of the department. Students cannot receive credit for both ACCT 4167 and 6167.

ACCT 6168 Internal and Operational Auditing 3cr.
Prerequisite: ACCT 3122 (with a grade of C or better) and consent of the department. Internal, operational auditing and internal auditing standards. Practical applications of internal auditing concepts through the use of readings, cases, and projects. Credit will not be given for both ACCT 4168 and 6168.

ACCT 6169 Fraud Examination 3cr.
Prerequisite: Accounting 2100 or 4400 or consent of department. An analytical and case approach to the study of how and why fraud is committed, how fraudulent conduct can be deterred, and how allegations of fraud should be investigated and resolved.

ACCT 6171 Seminar in the Historical Development of Accounting 3cr.
Prerequisite: consent of department. The study of the historical development of accounting, the stakeholders, and philosophies that shaped its past and present and will influence its future.

ACCT 6172 Financial Control of Gov and Other Not-for-Profit Organizations 3cr.
Prerequisite: ACCT 2100 or 4400 or 4171 or consent of department. A study of the management control problems of governmental and not-for-profit organizations. Emphasis will be placed on the use of financial information for controlling the operations of governmental and nonprofit organizations. Topics include: 1) budgeting 2) pricing of services 3) measurement and evaluation of performance and 4) the basic design of an information system.

ACCT 6173 State and Local Taxation 3cr.
Prerequisite: Consent of the department. An examination of the state taxation of multiple-state business entities, including income taxes, sales/use taxes and property taxes. One focus of the class will be the constitutional issue of the nexus and situs, as it applies to income and sales/use taxes. In addition, the apportionment and/or allocation of income between states, as well as the determination of taxable sales and the situs of property will be covered. The taxation of e-commerce will be an area of special concern.

ACCT 6180 Strategic Corporate Tax Planning 3cr.
Prerequisite: Consent of the department. This course introduces future tax professionals to the managerial/organizational decisions in which they may be expected to be involved. This course will highlight the impact of taxes on all aspects of the corporation, from formation to liquidation. This course will be case-driven, with examples taken from actual business scenarios wherever possible. Different tax-planning tools will be discussed, such as timing, negotiating and transforming.

ACCT 6190 Contemporary Tax Accounting Topics 3cr.
Prerequisite: consent of department. This course will be used to offer tax topics of current interest to the student community. Topics such as Real Estate Taxation, Taxation of Natural Resources, Tax Exempt Organizations, Tax Aspects of International Transactions, and others may be offered from time to time. May be repeated for credit when topics vary.

ACCT 6191 Seminar in Contemporary Accounting Topics 3cr.
Prerequisite: consent of department. An examination and discussion of the non-tax accounting topics of current interest. May be repeated for credit when topics vary.

ACCT 6192 Special Topics in Accounting 1-4cr.
An intensive study of selected special topics in Accounting. Topics will vary on the basis of contemporary needs — as dictated by the discipline, interests of the students and interests of the instructor. Section number will correspond with credit to be earned.

ACCT 6194 Internship in Accounting 3cr.
Prerequisite: 15 hours of MBA courses with at least a 3.0 GPA and consent of the department. The student will work a minimum of 150 hours during the semester at the site of a participating organization that directs the intern in a specific Accounting project. Students must in addition engage in extensive outside research in the subject area related to their internship and submit a substantial report on this research reflecting a graduate level of learning. Enrollment is limited. May not be repeated for credit. Students wishing to take this course should apply a semester in advance with their research proposal and obtain approval prior to the internship semester. May not be used for degree credit in the Masters of Science in Accounting programs or as a substitute for the required accounting course in the MBA program.

ACCT 6195 Directed Study 3cr.
Offered each semester. Prerequisite: consent of department. Readings, conferences, reports, and a research project under the direction of a member of the graduate faculty.

Aerospace Studies

AERO 1001 Foundations U.S. Air Force I 1cr.
Fall semester. This course focuses on the basic characteristics of air doctrine; U.S. Air Force mission and organization; functions of the U.S. strategic offensive and defensive, general purpose, and support forces; officership; followership; military customs and courtesies; and an assessment of communicative skills

AERO 1002 Foundations U.S. Air Force II 1cr.
Spring semester. This course focuses on U.S. Air Force installations and professions; introduction to flight; geographical awareness; U.S. defense policy; military balance; terrorism; and a study of the other branches of the Armed Services.

AERO 1201 Air Power History I 1cr.
Fall semester. Traces the development of airpower from the beginning of manned flight through World War II.

AERO 1202 Air Power History II 1cr.
Spring semester. A study of Post-World War II airpower development and employment, including present-day aerospace forces.

AERO 3001 Leadership Skills I 3cr.
Fall semester. Prerequisite: consent of department. The general theory and practice of management applied to Air Force situations.

AERO 3002 Leadership Skills II 3cr.
Spring semester. Prerequisite: consent of department. The theory and application of general concepts of leadership to Air Force situations.

AERO 3401 National Security Forces in Contemporary American Society I 3cr.
Fall semester. Prerequisite: consent of department. Study of the armed forces as an integral element of society. Examines civil-military relations in the formation of defense policy; the evolution of national security policy; the national security policy process; and national security policy issues

AERO 3402 National Security Forces in Contemporary American Society II 3cr.
Spring semester. Prerequisite: consent of department. Political, economic, social, technological, and international developments; their effects upon strategic preparedness and the overall defense policy-making process.

Anthropology

ANTH 1010 Peoples of the World 3cr.
Offered each semester. A topical survey of tribes and cultures of the world past and present. This course is designed to acquaint the beginning student with anthropology and its various subfields. It will examine the background of several cultures at different levels of development which are now undergoing the difficult process of combining their traditional ways of life with the rapid changes imposed on them by the modern world.

ANTH 1020 Fads, Fallacies, and Human Origins 3cr.
A rational examination of numerous supposed ancient "mysteries" and unsolved phenomena relative to human origins using the data and methods of modern archaeology. Topics will include those areas in anthropology and archaeology made popular by sensationalist authors such as lost continents, ancient astronauts, strange stone monuments, pyramids, the Yeti and other monsters, lost races, archaeoastronomy, psychic anthropology, catastrophisms, and others. Major foci will include both the evidence for the actual causes of the phenomena and an examination of the methodology and style of pseudo-scientific sensationalist authors.

ANTH 1030 America as a Foreign Culture 3cr.
America examined as a foreign culture, or set of interrelated cultures, as it might be viewed by anthropologists form other nations. Topics will include an introduction to anthropology, American core values, the concept of national character, a history of ethnic groups in the United States, concepts of class stratification and culture change. The course is designed to encourage interaction between Americans and foreign students through participation in field trips to museums, festivals and other cultural events.

ANTH 1231 World Archaeology: Cultures from the Earth 3cr.
A worldwide survey of prehistoric cultural adaptions from the first use of bone and stone tools to the ancient mysterious civilizations of Asia, Africa, the Americas and Europe including recent archaeological discoveries: the lost cities of the Indus Valley; the megalithic temple builders of Malta; the pyramids of Egypt, Peru, and Mesoamerica; the terra cotta army of China; and the Moundbuilders of North America. Emphasis is placed on the development of technologies, social groups and the patterns of cultural development.

ANTH 1292 Anthropology of Louisiana 1cr.
An examination of particular aspects of Louisiana culture as seen by an anthropologist. Topics will vary each semester, but they will emphasize Louisiana's cultural diversity from the prehistoric background to the contribution of various European and African groups. Two hours of lecture per week for one-half semester. May be repeated once for a total of two credits.

ANTH 2051 Human Origins 3cr.
Offered each semester. The origin and evolution of the human species, primates, modern human variation, prehistoric societies, and linguistic classification.

ANTH 2052 Cultural Anthropology 3cr.
Offered each semester. Cross-cultural, global, comparative, and critical perspectives on human behavior and culture. Diversity of human cultures from hunter-gatherers to industrialized city dwellers. Implications of sociocultural analysis of economic, social, political, symbolic, and religious systems.

ANTH 2151 Forensic Anthropology 3cr.
Prerequisite: ANTH 2051 (or an equivalent course in physical/biological anthropology), graduate status or consent of department. The study of human skeletal material for the determination of basic information (age, race, sex, ancestry, ethnicity, stature, weight). Topics include osteometry, ancestry, and the establishment of specific individual characteristics from skeletal remains. Special lectures on recognition of trauma and common disease processes in bone will also be provided. Laboratory exercises will allow student group to analyze forensic cases to reinforce lecture and reading material.

ANTH 2991 Independent Work 1cr.
Prerequisite: consent of department. Readings, conferences, and reports under the direction of a member of the anthropology faculty.

ANTH 2992 Independent Work 1cr.
Prerequisite: consent of department. Readings, conferences, and reports under the direction of a member of the anthropology faculty.

ANTH 2993 Independent Work 1cr.
Prerequisite: consent of department. Readings, conferences, and reports under the direction of a member of the anthropology faculty.

ANTH 3090 Special Topics in Cultural Anthropology 3cr.
Prerequisite: ANTH 2051 or 2052 or consent of department. The examination of selected societies, culture areas, or social institutions, or theoretical topics to illustrate the anthropological perspectives to problems of applied anthropology, culture process, change, and development. Topic will vary from semester to semester. May be repeated once for credit.

ANTH 3101 Intermediate Physical Anthropology 3cr.
Prerequisite: ANTH 2051. The structural and behavioral background of the human species as revealed by living and fossil primates, ancient forms of humanity, comparative osteology, and the interaction of biological and cultural evolution.

ANTH 3190 Special Topics in Physical Anthropology 3cr.
Prerequisite: Anthropology 2051 or 2052 or consent of department. The in depth study of selected aspects of physical anthropology to illustrate the anthropological approach to problems regarding the biological and/or cultural aspects of man's development. Topic will vary from semester to semester. May be repeated once for credit.

ANTH 3201 Field Methods in Archaeology 3cr.
Prerequisite: consent of department. An introduction to the techniques of excavation, recording, laboratory analysis, and care of archaeological materials. Participation in the excavation of local sites. Two hours of lecture and four hours of laboratory.

ANTH 3207 European Prehistory: Stone Age to Stonehenge 3cr.
An examination of the archaeological sequence in Europe from the first evidence of human occupation to the establishment of urban civilization in the western Mediterranean basin.

ANTH 3215 North American Archaeology 3cr.
The cultural development of the indigenous peoples of the United States and Canada from the earliest settlement until European conquest. Emphasis on archaeological evidence for historical reconstruction and on cultural adaptations to the physical environment.

ANTH 3295 Laboratory Techniques for Field Archaeology 3cr.
Prerequisite: ANTH 3201 or consent of department. Detailed instruction on the cleaning, preservation, description, classification, and curation of artifacts. The comparative analysis of archaeological materials, both historic and pre-historic and the preparation of preliminary and final site reports. Two hours of lecture and four hours of laboratory.

ANTH 3298 Research Problems in Field Archeology 3cr.
Prerequisites: credit or concurrent registration in ANTH 3201 and consent of department. Instruction in the supervision of excavation, conduct of exploratory surveys, planning of laboratory analysis and preparation of excavation reports. Offered summer only.

ANTH 3301 Doing Ethnography 3cr.
Introduction to the theory and practice of ethnographic research methods, including ethnographic interviewing, participant observation, photography, and qualitative approaches to the analysis of cultural data. Special focus on the ethics of ethnographic fieldwork. Student engage in enthographic research.

ANTH 3305 Indigenous Civilizations of Middle America 3cr.
The civilizations of the Aztec, Maya, Mixtec, Zapotec, and their predecessors; neighboring cultures with whom they were in contact; the continuing influence of these societies in modern times.

ANTH 3307 South American Prehistory † 3cr.
The cultural development of the first inhabitants of South America from the initial occupation to the European conquest. Particular attention is devoted to the rise of complex civilizations in the central Andes and adjacent Pacific coast culminating in the Inca empire. The continuing influence of these societies in modern times is also considered.

ANTH 3314 The Indigenous Peoples and First Nations of North American 3cr.
Survey of the sociocultural systems of the indigenous peoples north of Mexico. Histories, ecologies, economies, social relations, kinship, and belief systems, including colonialism, culture contact, change, and cultural survival. Contemporary and applied issues of the First Nations.

ANTH 3315 Caribbean Peoples and Cultures: Colonialism, Creolization, Diaspora 3cr.
This course explores the cultures and societies of the contemporary Caribbean. A critical reading of recent ethnography will be used to examine themes such as colonial and post-colonial social structures, creolization, ethnicity, and the formation of national and pan-Caribbean identities. Particular attention will be given to popular religion, tourism, music, the growing Caribbean diaspora in North America and Europe and to ethnographic research methods in urban and applied contexts.

ANTH 3320 Amazonia: People, Culture, and Nature 3cr.
Ethnographic survey of the sociocultural systems developed by the indigenous peoples of Amazonia and other lowland forests. Ecological factors, subsistence practices, social organizations, politics, cosmology, ethnohistory, myths, and belief systems. Contemporary issues of colonialism, contact, change, continuity, resistance, and cultural survival, as well as issues of human rights and the destruction of the Amazonian rain forest will be examined

ANTH 3325 Peoples and Cultures of Mesoamerica 3cr.
Ethnographic and ethnohistorical survey of the peoples and cultures of Mesoamerica, especially the Maya, Aztec, and their present-day descendents. Texts, narratives, documents, and ethnographic accounts are interpreted in light of critical theory and analysis, employing the approaches of ethnology, ethnohistory, archaeology, and literature. Colonial history, colonialism, representation, indigenous "voices," and strategies of resistance and cultural survival will be examined.

ANTH 3340 Peoples and Cultures of Europe 3cr.
This course explores the cultures and societies of contemporary Europe. A critical reading of recent ethnography will be used to examine themes such as the formation of national identities, ethnicity and migration, rural life and traditionalism, family and kinship, popular religion, urban development and the problem of European unity. Particular attention will be given to ethnographic research methods in urban and applied contexts.

ANTH 3351 Peoples and Cultures of Africa 3cr.
The peoples and cultures of the continent, stressing sub-Saharan groups. Although some attention will be devoted to colonial era and earlier cultures, the major focus will be on the contemporary scene, including the effects of the African diaspora.

ANTH 3370 People and Culture of the Pacific 3cr.
The geographic setting; native cultures of the Melanesians, Polynesians and Malaysians; the influences of Asiatic and Euro-American civilizations.

ANTH 3401 Folklore 3cr.
A survey of traditional tales and oral literature, both in preliterate and peasant communities and in industrialized societies; the role of

folk customs in modern culture. Emphasis on an independent research project on local folklore by each student.

ANTH 3595 Academic Year Abroad: Special Topics in Anthropology 3cr.
This course is only offered through UNO's Academic Year Abroad (AYA) in Innsbruck, Austria and can be repeated once for credit.

ANTH 3737 Women: Cross-Cultural Perspectives 3cr.
An examination of the roles and status of women in selected world cultures with an emphasis on theory and analysis of the relationship of gender roles and behavior to economic, political, and social systems.

ANTH 3750 Food and Culture 3cr.
Examination of human diet and nutrition from an evolutionary and ecological perspective. The sociocultural and biological dimensions of food practices. Topics include the social roles of food: why we eat what we eat and with whom. Also discussed are food taboos and beliefs, food getting and preparation, changing food habits, contemporary problems of food production and malnutrition, and the effect of cultural and environmental influences on nutrient intake.

ANTH 3896 Senior Honors Thesis 1-6cr.
Prerequisite: consent of department and director of the University Honors Program. The preparation under faculty direction of an extended research paper upon some aspect of a topic currently of concern in the field so as to meet the requirements for graduation with University Honors and Honors in Anthropology. May be repeated for up to a total of six credits. Section number will correspond with credits to be carried.

ANTH 4070 Qualitative Research 3cr.
Prerequisite: senior standing or beyond, preferably in an established social science discipline; prior familiarity with research methodology and prior or concurrent registration in quantitative methodology courses are also advisable. Training in applied research techniques in the social sciences. Design, writing, and analysis of research using qualitative methodology with emphasis on directed, applied evaluation research, and related interdisciplinary methods and rationales.

ANTH 4075 Life History, Identity & Autonomy 3cr.
An inquiry into the methods, theories and results of ethnographic life histories in anthropology. Emphasizing culture, cultural context, the "insider's view" (emics), and "native voice," life history texts are mediated representations of individuals created through "informed subjectivity." Critically examining the debates surrounding life history methods and focusing on the concepts of "autonomy," "self," and "identity," this course explores the efficacy of using the individual as a focal unit of analysis, along with issues of representation, agency, and the construction of cultural identities. Students will engage first-hand in life history research.

ANTH 4090 Advanced Topics In Cultural Anthropology 3cr.
Prerequisite: six hours of anthropology or consent of the department. An advanced, in-depth examination of selected societies, culture areas, social institutions, or theoretical topics to illustrate the anthropological perspective. Topics will vary from semester to semester. May be repeated for credit.

ANTH 4155 Human Osteology 3cr.
Prerequisite: ANTH 2151 and 3101 (or an equivalent course in physical/biological anthropology), graduate status or consent of department. A forensic anthropology course focused on the examination of the anatomy and functional mechanics of the human skeleton. Consideration is given to bone histology, skeletal development, muscle attachments, major osteological structures, and articulations of the skeletal system. The course emphasizes skeletal anatomy, bone variations, and some commonly occurring bone anomalies and pathologies. Special laboratory sessions provide opportunities for hands-on experience with skeletal remains.

ANTH 4210 Cultural Adaptation to the Mississippi River Delta 3cr.
An examination of human adaption to the dynamic and highly complex environment of the southeastern Louisiana Deltaic plain. The archaeological and ethnographic record preserves the cultural patterns and settlements of the earliest indigenous groups to occupy the area and extends into the colonial periods of first French, then Spanish, and finally American statehood. Adaptive strategies of each of these groups will be compared, relative to their technology and imported cultural patterns. Different environmental settings will be contrasted to demonstrate the elasticity of human culture as an adaptive device.

ANTH 4440 Religion Magic and Witchcraft 3cr.
Prerequisite: ANTH 2051 or 2052 or consent of department. The comparative and cross-cultural examination of the manner in which religions function within the total cultural systems of which they form a part. Emphasis will be given both to beliefs and practices exotic to the large world religions and also to folk customs and informal interactions within Western and other complex societies.

ANTH 4454 Social Structure 3cr.
Prerequisite: ANTH 2051 or 2052 or consent of department. The social organization and psychological orientation of selected preliterate societies.

ANTH 4455 Contemporary Families and Kinship 3cr.
Prerequisite: Anthropology 2051 or 2052 or consent of department. Cross-cultural and comparative study of families, kinship, and sexuality. Analysis of kinship as core social structure and as source of sentiments and symbols with broader social significance. Emphasis on relationship between kinship and cultural views of biology and reproduction, gender identities and ideologies. Students will learn field methods through self-ethnography and an applied research project.

ANTH 4462 Economic Anthropology 3cr.
Prerequisite: ANTH 2051 or 2052 or consent of department. The comparative analysis of the economic institutions of preliterate peoples with special attention to the technological bases of these institutions.

ANTH 4565 Language and Culture 3cr.
Prerequisite: ANTH 2051 or 2052 or consent of department. Language as the vehicle for culture; the influence of linguistic patterns and cultural configurations upon one another; the utility of various methods of linguistics analysis in the study of these programs.

ANTH 4610 Zoological Research in Comparative Social Organization 3cr.
Prerequisites: Anthropology 2051 or consent of department. Roots of social organization both in human and non-human primates and in other animal species; supervised observational techniques for basic and applied research to coordinate with the scientific program of the Audubon Zoo.

ANTH 4666 Shamanism, Curing and Healing 3cr.
Anthropological examination of shamanism, curing, and healing in cross-cultural perspective. Shamanic practices and belief systems are analytically and critically considered from multiple perspectives, including ethnological, historical, psychological, medical, religious, and neurological. The origins of shamanism, the use of hallucinogens, the underlying premises of curing and healing methods, the nature of shamanic belief systems, and recent trends are all considered.

ANTH 4721 Cultural Resource Management and Preservation Archaeology 3cr.

Prerequisite: six hours of anthropology or consent of department. A problem-oriented presentation of the role of cultural resource management in the larger context of environmental impact studies. Particular attention is focused on accumulative impacts, legislative directions, and avoidance measures. The function of preservation archaeology in adaptive reutilization of standing structures and neighborhood revitalization programs is considered.

ANTH 4723 Historical Site Archaeology 3cr.

The application of the methodology and theory of field archaeology to the investigation of the material culture and settlement patterns of the colonial period and the early nineteenth century particularly in North America; the use of these data in the study of the dynamics of evolving varieties of Euro-American and Afro-American culture.

ANTH 4761 Medical Anthropology 3cr.

Prerequisite: three hours of anthropology or consent of department. Holistic and cross-cultural examination of medical systems as systems knowledge and as theories of reality. Includes ecological, sociopolitical, historical, and comparative analyses of health and disease in human cultures in such areas as ethnomedicine, alternative medicines, shamanism, gender, and the human life cycle.

ANTH 4765 Ethnicity in Contemporary Society 3cr.

Prerequisite: three hours of Anthropology or consent of department. Cross-cultural analysis of concepts of race, ethnicity and national identity. Course draws on theoretical debates within anthropology and on ethnography in Africa, Asia, Europe, North and South America in order to identify cultural contexts and process behind deployment of recent ethnic conflicts around the world and on comparative study of ethnicity, race and racism in American society. Students will develop a field project related to ethnicity in the New Orleans metropolitan area.

ANTH 4766 The Anthropology of Sex and Gender 3cr.

Inquires into the anthropology of sex and gender in historical, evolutionary, critical, and cross-cultural perspective. The course considers anthropological theories of sex and gender in the context of social, political, economic, and biological systems. Drawing on feminist anthropological theory, the significance and meanings of diversities between cultures and within American society is examined. Topics include: the nature/nurture debate; stereotyping; sex and gender roles, erotica, sexuality; homosexuality; gender origins and social change; status and power relationships.

ANTH 4767 Race & Racism: Old Problems, New Approaches 3cr.

Prerequisite: Anthropology 2051 or 2052 or consent of department. Using anthropological perspectives, this course critically focuses on the "concept of race" and the practice of interpreting "races" as natural and real categories for dividing the human species based on perceivable physical differences. It examines the social construction of race in cross-cultural context, and the social, economic, religious, and political (colonial) contexts that shape it. A critical assessment of the essentialist claim that "race" is a self-evident description of physical and socio-cultural reality. Race, racism, and cultural racism examined as ideology, worldview, and cultural myth.

ANTH 4768 Anthropology and Policy 3cr.

Prerequisite: consent of department. This course explores the links between research in cultural anthropology and policy. It will examine areas where ethnographic research has shaped social policy and debates that have defined the relationship between anthropology and government. Particular attention will be paid to research methods and presentation strategies used by anthropologists engaged in policy research. Case studies will be drawn from recent ethnographic research in urban settings including work on health policy and substance abuse housing and homelessness and community development and activism.

ANTH 4770 Contact, Change, and Cultural Survival: the Anth of Colonialism 3cr.

Prerequisite: Anthropology 2051 or 2052 or consent of department. Explores anthropological and ethnohistorical approaches to issues of contact, culture change, resistance, and cultural survival among traditional indigenous societies. Special focus is on early contacts of the colonial era and the impact of the industrial world's economic, political and social order on indigenous peoples and cultures up the the present postcolonial era. The "global" dimension of the anthropological perspective on colonialism is emphasized.

ANTH 4772 Applied Anthropology 3cr.

Prerequisite: six hours of anthropology or consent of department. The relevance of anthropology to business, government and local communities. Application of anthropological theories and research methods to urban social policy and human services, international and domestic development, health care, community organization, education, advocacy, tourism, market research, work environments and product design. Discussion of ethics of applied fieldwork and intervention. Students will design and carry out an applied field project in the New Orleans metropolitan area.

ANTH 4775 Urban Anthropology † 3cr.

Ethnographic approach to life in cities and to the cultures of cities. Popular myths and scholarly theories of urban life will be reviewed in light of recent ethnographic research in African, Asian, European, North and South American cities. Particular attention will be paid to cultural processes in cities, including the making of neighborhoods, the deployment of urban myths and folklore, the linking of cultural ideas about race, ethnicity and class in defining urban space, tourism, urban social policy, travel and images of cities and the making of urban consumers. Students will draw on theories and methods developed in class in order to design and carry out a field project in the New Orleans metropolitan area.

ANTH 4777 Transnational Processes: Migrations, Borderlands, Globalization 3cr.

Prerequisite: six hours of anthropology or consent of department. This course explores transnational processes contributing to the reconfiguration of communities in the contemporary world. Recent ethnographies will be used to examine international migrations, borderlands, the impact of transnational corporations and commodities on local communities and the growth of transnational social and religious movements.

ANTH 4780 Exploring Visual Anth: Critical Perspectives and Interpretations 3cr.

Prerequisite: nine hours of anthropology or graduate status or consent of department. Critical and interpretive exploration of how ethnographic film and filmmakers shape images and visions of human beings, cultures, and the human condition. Included are the history of the genre, film and ethnography in other media, and visual representations in the art and science of anthropology.

ANTH 4790 Internship in Anthropology 3cr.

Prerequisite: Anthropology 2051 or 2052 and consent of department. Each semester the department has internships available with the Audubon Zoo research program and other museums, agencies, or industries who request student interns with a background in anthropology. Interns will meet regularly with their adviser and supervisor, both of whom evaluate the student's work. Students are expected to turn in protocols or field logs, and a research paper as

well as attend appropriate training seminars. This course may be repeated once for credit for a total of six credits.

ANTH 4801 The History of Anthropological Theory 3cr.
Prerequisite: nine hours of anthropology or consent of department. Critical and historical study theories of culture. Historical and contemporary schools of thought and major trends in ethnological theory, along with consideration of seminal theorists. Theoretical approaches in relation to biography, historical era, and sociocultural milieu of theorists, and to the function and purposes of anthropology in Western thought. Successful completion of this course satisfies the general degree requirements for oral competency. (For anthropology majors)

ANTH 4825 Contemporary Archaeological Theory 3cr.
Prerequisite: Anthropology 2051 or History 2301 or consent of department. The application of anthropological theory, statistical procedures, and the analytical techniques of the natural sciences to archaeological research design, stressing contemporary developments. The relationship of archaeological data to general ethnological theory.

ANTH 4888 The Anthropology of the Body 3cr.
Prerequisite: nine hours of anthropology or graduate status or consent of department. Explores the anthropology of the body and and the body as social text. The human body is often taken for granted in the human condition. Drawing on recent interdisciplinary approaches, this course examines the ways in which social meanings and messages are shaped and controlled through the medium of "the body." Dressed, undressed, decorated, scented, mutilated, disabled, controlled, frenzied, etc., in each instance the many, perhaps infinite manifestations of the body are interpreted as providing important clues for sociocultural analysis.

ANTH 4990 Independent Study 3cr.
Prerequisite: consent of department. Readings, conferences, and reports under the direction of a member of the anthropology faculty.

ANTH 4991 Advanced Field Research in Anthropology 1-6cr.
Offered summers only. Prerequisites: prior field research and consent of department. Amount of credit to be determined at the time of registration. Major field research, either independent or participatory, each under faculty guidance. (May be repeated once for a maximum total of six credits.) Section number corresponds to credit to be earned.

ANTH 4995 Anthropology of Contemporary Issues 1cr.
Prerequisite: senior standing. For majors and minors in anthropology, this seminar is devoted to an exploration of issues of the modern world from the perspective of contemporary anthropological methods and theory. Weekly seminar discussions based on core readings, oral presentations and short essays prepared by students.

ANTH 6091 Advanced Research Problems in Urban Anthropology 3cr.
Prerequisite: consent of the department and College of Liberal Arts through the School of Urban Planning and Regional Studies. The application of anthropological methodology and theory in urban settings. Special attention to the analysis of significant theoretical issues, to techniques for the amelioration of critical social problems, and to cultural preservation in the broadest sense of the term. Topics will vary by semester. May be repeated once for credit. (This course is primarily intended for students in the Applied Urban Anthropology concentration of the College of Liberal Arts through the School of Urban Planning and Regional Studies.)

Arts and Sciences

A&S 1100 French Culture and Civilization 3cr.
A study of the political, social, and cultural institutions in France, with an emphasis on contemporary civilization.

A&S 1110 Spanish Culture and Civilization 3cr.
An introduction to the history, art, geography, social organization, and philosophers of Spain.

A&S 1119 Structures of Western Thought: Ancient Greece 3cr.
Prerequisite: concurrent registration in ENGL 1159 or 2279. A study of central features of ancient Greek culture: literature, philosophy, art, and science.

A&S 2219 Biblical Foundations of Western Thought 3cr.
The formation of biblical thought, stressing both the historical and cultural background which gave rise to the distinctively Biblical insights into the human condition and the reasons why these have had such lasting influence on Western society.

A&S 2229 The Renaissance 3cr.
Studies in different aspects of the renaissance(s) in Western Europe during the fourteenth, fifteenth, and sixteenth centuries.

A&S 2310 Rise of the West: the Middle Ages 3cr.
Study of the principal social and cultural events of the Middle Ages as contributions to the formation of Western Civilization.

A&S 2410 Search for Order: Renaissance Reformation Enlightenment 3cr.
Study of the principal social and cultural movements between 1300 and 1800.

A&S 2429 Age of the Enlightenment 3cr.
Studies in different aspects of the Eighteenth Century Enlightenment.

A&S 2529 The Nineteenth Century 3cr.
Studies in different aspects of the romantic and revolutionary movements of the nineteenth century.

A&S 2899 Twentieth Century Issues 3cr.
The topic varies from semester to semester. The course may be repeated once for credit.

A&S 2900 European Civilization: Field-Based Learning 3cr.
Students live and work in a European country, study the language, culture, and history of the country, and analyze the distinctive social practices to be found. Intensive and reflective interaction with the host population is stressed. May be repeated for credit with consent of the Director of the Honors Program. Students should have previous experience with the language of the host country. This course is not to be used for independent study.

A&S 2999 Forms of Inquiry 1cr.
Introduction to various disciplinary perspectives, the current problems, theoretical underpinnings, and methods of procedure that direct diverse forms of inquiry. Scholars from the various departments will display their fields of study while addressing a common theme. May be repeated for up to three credit hours.

A&S 3099 The Honors Colloquium 3cr.
Prerequisites: junior or senior standing and recommendation of a professor or student's dean. The subject varies. Course may be repeated once for credit.

A&S 3110 The End of the Past: Nineteenth Century 3cr.
Study of the principal social and cultural movements between the French Revolution and World War I.

A&S 3595 Academic Year Abroad: European Perspectives of America 3cr.

A study of historical and current European views of American culture as presented in the creative arts, literature, and political writings, and scholarly analyses. This course is only offered through UNO's Academic Year Abroad (AYA) in Innsbruck, Austria and can be repeated once for credit.

A&S 3599 Natural Science 3cr.
Prerequisites: Junior or senior standing and completion of a one-year course in physical science and one in biological sciences, at least one with laboratory. Selective problems illustrative of developing concepts of the natural and physical universe and of living organisms. Readings, discussions, papers.

A&S 3999 Senior Honors Thesis 3cr.
Admission by consent of the Director of the General Studies Degree Program and the Director of the University Honors Program. Directed research culminating in a written thesis to meet the requirements for graduation with University Honors or Honors in General Studies. May be repeated once for a total of six hours credit.

Arts Administration

AADM 4502 Principles of Arts Administration Law 3cr.
An introduction to the concepts of contracts, copyright, agency, facilities liability and other legal principles which affect those who perform or create art and entertainment. Through lecture and readings, the student will learn how the world of culture and entertainment is affected by the law and how the law is affected by the arts. Not open to Arts Administration Graduate Students, and not for graduate credit.

AADM 6501 Development Strategies for Arts Organizations 3cr.
Prerequisite: Consent of the program coordinator. A study of development and fund raising strategies and techniques for nonprofit arts organizations. Topics include financial management and planning; federal, state, and local grants; foundation grants; corporate support; annual fund drives and special events; capital campaigns and deferred giving. Special problems and opportunities in development are explored through case studies and projects with local arts organizations.

AADM 6502 Arts Administration: Legal and Business Applications 3cr.
Prerequisite: consent of program coordinator. The study of several areas of law and business as they apply to the administration of the artistic institution. The subjects covered include government regulations, contracts, taxes, and insurance. This seminar is designed to examine the management of art galleries, theaters, and concert halls with an application of these legal and business considerations. Limited internship or observation opportunity in an arts organization.

AADM 6503 Marketing the Arts 3cr.
Prerequisite: consent of the program coordinator. Application of marketing techniques to nonprofit and commercial arts organizations and products. Topics include special principles in marketing the arts, the marketing audit and marketing plan, market research and target marketing, direct mail and telemarketing, and applications to both visual and performing arts organizations. Special problems in marketing are explored through case studies and projects with local arts organizations.

AADM 6900 Practicum in Arts Administration 1-3cr.
Prerequisite: consent of department. Supervised experience in various fields of Arts Administration. Amount of credit to be stated at the time of registration. May be repeated for a total of up to six hours.

AADM 6990 Internship in Arts Administration 6cr.
Prerequisites: enrollment in the master's program in Arts Administration and satisfactory completion of comprehensive examination. A supervised program for students completing the degree in Arts Administration in which participants gain experience in most aspects of the management of an arts institution ranging from ticket sales to contract negotiations. Objectives are set and evaluation is accomplished jointly by the program coordinator, the student, and the on-site supervisor. A research report on the internship is required.

AADM 7040 Examination or Report Only No credit 0cr
Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

Biological Sciences

General Prerequisites: Students may receive credit for only one course from each of the following pairs: Biological Sciences 1063 and 1073, 1083 and 1053, 1061 and 1071, 1051 and 1081, 2014 and 2553. Students must attain grades of C or higher in any courses serving as prerequisites for higher-level courses.

Some of the biology courses entail dissection of animal or plant material. Such dissection is an essential component in the learning of biological principles and is required of all students majoring in the Biological Sciences at UNO and of all students matriculating in the upper-level biology courses. It is recognized that a significant number of non-major students take only the 1000-level biology courses and do not matriculate toward upper-level biology coursework. It is the policy of the department that, in the 1000-level biology courses (with the exception of Biology 1311), such non-major students who, for ethical reasons, object to dissection, may request of the laboratory instructor to be exempted there from (with the understanding that the student will be held responsible for the course material contained therein).

BIOS 1051 Contemporary Biology Laboratory 1cr.
Prerequisite: eligibility for enrollment in ENGL 1157. Enrollment in BIOS 1053 is recommended. Not offered for credit to fulfill science requirements of students enrolled in the College of Sciences, Allied Health Program, or Science Education. This course is designed to complement material presented in Biological Sciences 1053. Laboratories explore the types of activities occurring in living systems including various aspects of human physiology such as blood pressure, the effects of exercise on the heart and muscle function. The remainder of the course involves a study of how cells reproduce, human genetics, and human reproduction. The course meets for two hours once per week. Credit may not be earned in both BIOS 1051 and 1081.

BIOS 1053 Contemporary Biology 3cr.
Prerequisite: eligibility for enrollment in ENGL 1157. Not offered for credit to fulfill science requirement of students enrolled in the College of Sciences, Allied Health Program, or Science Education. Concurrent enrollment in BIOS 1051 is not required. Credit may not be earned in both BIOS 1053 and BIOS 1083. This course is one of two courses designed to present biology in a manner relevant to the non-science major. This semester consists of a study of form and function of the human body and aspects of health and disease.

BIOS 1054 Introductory Biology 4cr.
Prerequisite: SCI 1012. Introduction to the general principles of biology, including planning and conducting experiments, using data to explain observations, the structure and function of animals and plants, microbiology, ecology, classification and the diversity of organisms, and genetics. Lab will be integrated in a hands-on manner designed to provide future elementary teachers and non-science majors with a firm scientific understanding of Life Sciences. Three hours lecture and three hours lab. Not offered to fulfill science requirements of students enrolled in the College of Science.

BIOS 1061 Contemporary Biology Laboratory 1cr.
Prerequisite: eligibility for enrollment in ENGL 1157. Enrollment in BIOS 1063 is recommended. Not offered for credit to fulfill science requirements of students enrolled in the College of Sciences, Allied Health Program, or Science Education. This course is designed to complement material presented in BIOS 1063. A survey of the five living kingdoms is presented with a focus on basic aspects of their biology and their evolutionary relationships. Principles of behavior are illustrated with student observation of a number of animal groups, and principles of ecology and ecosystem analysis are investigated using the local marsh ecosystem. The course meets for two hours once per week. Credit may not be earned in both BIOS 1061 and BIOS 1071.

BIOS 1063 Contemporary Biology 3cr.
Prerequisite: eligibility for enrollment in ENGL 1157. Not offered for credit to fulfill science requirements of students enrolled in the College of Sciences, Allied Health Program, or Science Education. Enrollment in BIOS 1061 is not required for enrollment in BIOS 1063. This course is part of a two-semester sequence. The course is designed to provide the non-science major with basic information about the principles of ecology and evolution, and the impact of man on the environment. Topics include the origin and evolution of plants and animals, aspects of animal (including human) behavior, evaluation of methods of pest control and pollution. Credit may not be earned in both BIOS 1063 and BIOS 1073.

BIOS 1071 Biodiversity Laboratory 1cr.
Prerequisite: credit or concurrent enrollment in BIOS 1073. Students are given exposure to representatives of the various groups of organisms discussed in BIOS 1073 as well as other lecture topics that can be appropriately considered in the context of a laboratory setting (e.g. cell division and genetics). The course meets for three hours once per week. Credit may not be earned in both BIOS 1071 and BIOS 1061.

BIOS 1073 Biodiversity 3cr.
Prerequisites: eligibility for enrollment in ENGL 1157, MATH 1125 and credit or concurrent enrollment in BIOS 1071. An introduction to organismal biology in the broadest sense. The theory of evolution and its historical development are considered and provide the framework for a survey of diversity encountered in the five kingdoms of living organisms. The course finishes with an introduction to the basic principles of genetics and their relation to the process of evolution. Three hours of lecture. Credit may not be earned in both BIOS 1073 and BIOS 1063.

BIOS 1081 Form & Function Lab 1cr.
Prerequisite: credit or concurrent enrollment in BIOS 1083. This course is designed to demonstrate several of the principles discussed in BIOS 1083. Students are given exposure to the form (structure) of plants and animals at the cell, tissue, and organ levels. Students also perform experiments designed to explore how plants and animals function. Quantitative data are collected and analyzed. Other topics include control of the internal environment, organismic integration, the cell cycle, and animal development. The course meets for three hours once per week. Credit may not be earned in both BIOS 1081 and BIOS 1051.

BIOS 1083 Form & Function 3cr.
Prerequisites: eligibility for enrollment in ENGL 1157 and Math 1125 and credit or concurrent enrollment in BIOS 1081. An introduction to animal and plant structure and function at the level of organ systems. Topics will include digestion, circulation, respiration, excretion, chemical and neural coordination, sensory systems and effectors, reproduction and development. Three hours of lecture. Credit may not be earned in both BIOS 1083 and BIOS 1053.

BIOS 1301 Human Anatomy and Physiology Laboratory 1cr.
Offered each semester. Prerequisite: credit with C or better or concurrent registration in BIOS 1303. Three hours of laboratory each week to accompany BIOS 1303. Practical applications of the basic biological principles and a detailed study of the skeleton, brain, and major sensory organs.

BIOS 1303 Human Anatomy and Physiology 3cr.
Offered each semester. Prerequisites: Eligibility for enrollment in ENGL 1157 and MATH 1115 or 1125, and credit with a C or better or concurrent enrollment in BIOS 1301. This course is primarily designed for nursing and allied health students. An introductory course dealing with structural and functional relationships of the human organism at the cellular, tissue, organ, and system levels. The course covers general principles in biology and a detailed study of the skeletal, muscular, nervous systems of humans.

BIOS 1311 Human Anatomy and Physiology Laboratory 1cr.
Offered each semester. Prerequisites: credit with a C or better or concurrent registration in BIOS 1313. Three hours of laboratory each week to accompany BIOS 1313. A detailed dissection of the cat with correlations made to human anatomy. Selected physiological experiments which demonstrate principles involved in the various body systems. Applications of the basic biological principles and a detailed study of the skeleton, brain, and major sensory organs.

BIOS 1313 Human Anatomy and Physiology II 3cr.
Offered each semester. Prerequisite: credit in BIOS 1301 and 1303 with a C or better or concurrent registration in BIOS 1311. A continuation of 1303 examining the other major systems of the body and some human genetics and growth.

BIOS 2002 Internship in Biology 2cr.
Prerequisite: BIOS 2014 or BIOS 2114 or consent of department. Not offered during the summer session. Off-campus research at various local research facilities and institutions that do not have undergraduate programs. Research internships are designed to provide practical hands-on research experience in the Life Sciences. Students must coordinate an agreement with an off-campus research sponsor from a list of approved sponsors. Students must register during Phase 1 registration. Students are required to submit a written description of their proposed activities prior to approval. Requires commitment to a minimum of 12 contact hours per week at the off-campus facility. May be repeated once for biology elective credit. Additional hours may be taken for university general elective credit.

BIOS 2014 Population Genetics, Evolution, and Ecology 4cr.
Prerequisites: BIOS 1073, 1071 and MATH 1125. An introduction to the ecological and evolutionary processes that shape life on earth. Genetics and population genetics are incorporated with material from the fields of systematics, developmental biology, and paleontology to form a general evolutionary theory. Emphasis is placed on the ecological context, both biotic and abiotic, within which evolutionary changes take place. The laboratory includes field studies and computer simulation exercises of lecture topics that

lend themselves to coverage in a laboratory setting. Three hours of lecture and three hours of laboratory. Successful completion of BIOS 2014, 2114 and 3091 meets the general degree requirement for computer literacy.

BIOS 2092 Sophomore Research 1-3cr.
Prerequisites: BIOS 1073, 1071, 1083, 1081 and statistics. Independent studies by prior written arrangement with the department and professor concerned. An introduction to research methods in biology. May be repeated for a total of three semester hours credits in biology. Section number corresponds with credit to be earned. A field service fee is required in this course when applicable. Additional credit hours may be taken for general elective credit.

BIOS 2114 Cell and Molecular Biology 4cr.
Prerequisites: BIOS 1083, 1081 and CHEM 1018 CHEM 1028. An introduction to cell biology (cell structure and function, including metabolism) and molecular biology (the flow of information from DNA to proteins). The laboratory will involve exercises dealing with the techniques used to characterize proteins, nucleic acids, and cells. Three hours of lecture and three hours of laboratory. Successful completion of BIOS 2014, 2114 and 3091 meets the general degree requirement for computer literacy.

BIOS 2303 Human Biological Issues 3cr.
Prerequisite: BIOS 1053 or 1083 or 1313. An examination of several health-related biological issues including cancer, AIDS, metabolism and dieting, in vitro fertilization, and the uses of genetic engineering. Not available for science credit in bachelor of science curriculum in biological sciences.

BIOS 2313 Nutrition 3cr.
Prerequisites: minimum of three credits in Biological Sciences and CHEM 1012 or 1017. This course is primarily designed for nursing and allied health students. A detailed study of nutrition with emphasis on metabolic pathways and relationships between nutritional intake and normal and pathological changes in the human organism.

BIOS 2344 Physiological Basis of Drug Action 4cr.
Prerequisites: BIOS 1081 1083 or 1051 1053 or consent of department. A description of basic physiological processes with emphasis on drugs of physiological importance and on the physiology and metabolism of dangerous and habit forming drugs. Three hours of lecture and two hours of laboratory demonstration-discussion.

BIOS 2553 Evolution 3cr.
Prerequisites: BIOS 1073, 1071, 1083, 1081 or 1053, 1063. A study of theories, principles, and mechanisms of the evolution of life on earth.

BIOS 2663 Introduction to Environmental Biology 3cr.
Prerequisites: BIOS 1063 and 1061 or BIOS 1073 and 1071. An examination of the relationship between basic biological principles and current environmental problems. The impact of population growth, natural resource utilization, and waste generation and disposal on natural environments and biological diversity will be examined. The ecological, economic, and genetic rationale for conserving biological diversity and biological resources will be discussed.

BIOS 2744 Microbiology and Human Disease 4cr.
Prerequisites: a) consent of department or b) CHEM 1012 or 1017 and either BIOS 1083 and 1081 (or 1303 and 1301) and must have a grade-point average of at least 2.5. A laboratory course designed primarily for allied health majors. A survey of general and pathogenic microbiology including immunity and epidemiology. Three hours of lecture and three hours of laboratory.

BIOS 2813 Economic Botany 3cr.
Prerequisites: BIOS 1073 or 1063. Botanical, horticultural, and economic aspects of plants used as sources of food, fibers, and pharmaceuticals as well as other plants important to contemporary societies; origin and evolution of cultivated plants.

BIOS 2904 Introduction to Marine Zoology 4cr.
Prerequisites: BIOS 1073 1071 and 1083 1081 or consent of department. Field and laboratory survey of marine animals with emphasis on those of Louisiana Gulf Coast, including classification, morphology, physiology, and ecology. Five weeks at a Louisiana Universities Marine Consortium coastal laboratory. Summers only.

BIOS 2914 Introduction to Marine Science 4cr.
Prerequisite: consent of department. Introduction to physical, chemical, geological, and biological processes in oceans and coastal environments and their interactions with humans and the marine environment. Five weeks at a Louisiana Marine Consortium Coastal Laboratory. Summers only.

BIOS 2954 Comparative Anatomy of Chordates 4cr.
Prerequisites: BIOS 1073, 1071 and 1083, 1081. A study of changes in homologous organs in the chordate body and an analysis of the significance of these changes. Two hours of lecture and six hours of laboratory.

BIOS 3091 Undergraduate Seminar 1cr.
Offered each semester. Prerequisites: BIOS 2014, 2114 and one biology course completed at the 3000 level. Open to biological science and education majors only. Students will present seminars on biological topics from the original literature. Preparation and presentation will require the use of computers. Successful completion of this course satisfies the general degree requirement for oral competency. Successful completion of BIOS 2014, 2114 and 3091 meets the general degree requirement for computer literacy.

BIOS 3092 Independent Research 1-3cr.
Prerequisites: BIOS 2014, 2114 and Statistics. Independent studies by prior written arrangement with the department and professor concerned. An introduction to research methods in biology. May be repeated for a total of six semester hours credit in biology. Section number corresponds with credit to be earned. A field service fee is required in this course when applicable. Additional credit hours may be taken for general elective credit.

BIOS 3104 Introduction to Biochemistry 4cr.
Prerequisite: CHEM 2218 and BIOS 2114. An introduction to the fundamental concepts of biochemistry, with a quantitative emphasis. Four hours of lecture. Students in the B.S. Biology curriculum may not receive credit for both BIOS 3104 and CHEM 4510.

BIOS 3113 Immunology 3cr.
Prerequisite: BIOS 2114. A comprehensive survey of the fundamental elements and basic concepts of immunology including the cellular and molecular aspects of the immune response. Three hours of lecture and discussions of assigned reading.

BIOS 3284 Histology and Cytology 4cr.
Prerequisite: BIOS 2114. A study of the structure-function relationship of cells and tissues of the four basic tissue types in animals. Three hours of lecture and three hours of laboratory.

BIOS 3354 Vertebrate Physiology 4cr.
Prerequisite: BIOS 2114 Lectures and laboratory experiments are integrated to enhance the student's understanding of general principles in vertebrate physiology, as well as their skills in scientific methodology, data analysis and in the communication of experimental results. Three hours of lectures and three hours of laboratory.

BIOS 3453 Genetics 3cr.
Prerequisites: BIOS 2014 and 2114. An integration of Mendelian and molecular genetics, population genetics, and molecular evolution.

BIOS 3490 Special Topics in Physiology and Cell Biology 1-4cr.
Prerequisite: BIOS 2114; additional prerequisites may be established for each Special Topics course offered. Prerequisite information must be obtained from the departmental office prior to registration. Treatments of specialized subjects in physiology, biochemistry, cell and molecular biology. Topics will vary. Lecture and/or laboratory. Section number will correspond with credit to be earned.

BIOS 3590 Special Topics in Organismic Biology 1-4cr.
Prerequisite: BIOS 2014; additional prerequisites may be established for each Special Topics course offered. Prerequisite information must be obtained from the departmental office prior to registration. Treatment of specialized subjects in ecology, evolution and systematics. Topics will vary. Lecture and/or laboratory. A field service fee may be required in this course. Section number will correspond with credit to be earned.

BIOS 3653 General Ecology 3cr.
Prerequisite: BIOS 2014. A study of the relationships between organisms and their environment. Three hours of lecture. An independent research project and/or field trips outside of the class may be required.

BIOS 3854 General Botany 4cr.
Prerequisite: BIOS 2014, 2114. A survey of the plant kingdom emphasizing classification, structure, and function. Three hours lecture and three hours of laboratory.

BIOS 3944 Vertebrate Zoology 4cr.
Prerequisite: BIOS 2014 and BIOS 2954. A study of the behavior, classification, distribution, ecology and evolution of the vertebrates. Laboratory will emphasize classification and identification of local vertebrates as well as comparative morphological/skeletal adaptations. Three hours of lecture and three hours of laboratory. A field service fee is required for this course.

BIOS 4003 Biometry 3cr.
Prerequisite: MATH 2314 or an equivalent course. Statistical interference, analysis of variance, regression, correlation, and non-parametric methods. Introduction to multivariate analysis. Examples are chosen to illustrate applications in the biological sciences.

BIOS 4010 Senior Comprehensive Examination 0cr.
Graduating seniors must complete a comprehensive departmental examination and take the ETS Major Field Test, Biology (students pay cost). If a student has taken the GRE Biology Subject Exam, MCAT, DAT, that score may also be submitted. Students will attend an organizational meeting during the second week of class to discuss guidelines for completion of the course.

BIOS 4013 Multivariate Analysis of Biological Data 3cr.
Prerequisites: CSCI 1201 and BIOS 4003 or consent of department. An introduction to the analysis of multivariate data for the biological sciences. Topics include multiple regression and correlation, principal components analysis, factor analysis, ordination and cluster analysis, multivariate analysis of variance, and discriminant analysis. Laboratory emphasizes implementation of multivariate techniques with computer programs. Two hours of lecture and three hours of laboratory.

BIOS 4083 Marine Science for Teachers 3cr.
Prerequisites: BIOS 1073, 1071, 1083, 1081 or consent of department. Available only for free elective credit for students enrolled in the Bachelor of Sciences program in Biological Sciences. Introduction to marine biology and oceanography for teachers with little or no background in marine studies: methods for infusing marine science into existing elementary, middle, and high school curricula: emphasis on Louisiana environments and resources. Three weeks at a Louisiana Universities Marine Consortium coastal laboratory or an affiliated university campus with one field trip to coastal Louisiana. Summers only.

BIOS 4090 Special Topics for Biology Teachers 1-4cr.
Prerequisites: completion of 8 hours of biological sciences and consent of department. Course provides prospective and in-service teachers with experience in specialized subjects in the biological sciences appropriate for secondary education. Available for students enrolled in the B.S. program in Biological Sciences as free elective credit only. Lecture and/or laboratory. Not available for credit for students in the M.S. program in Biological Sciences. Section number will correspond with credit to be earned.

BIOS 4091 Senior Honors Thesis 1-3cr.
Prerequisites: 15 hours of biology credits and prior written arrangement with the department and professor(s) concerned. Students who wish to write a Senior Honors Thesis in order to graduate With Honors in Biological Sciences also need the approval of the director of the Honors Program. Limited to outstanding undergraduate students who have a minimum of a 3.50 grade point average in biological sciences. Independent research conducted in conjunction with biology faculty. A written report must be submitted and defended at the completion of the project. Not available for graduate credit, nor may

BIOS 4091 credit be used to satisfy the departmental requirement for 4000-level biology credit. May be repeated for a total of six credits in biology. Additional credit hours may be taken for general elective credit.

BIOS 4093 Laboratory Skills for Biology Teachers 3cr.
Prerequisites: completion of 8 hours of biological sciences and three hours of chemistry and consent of department. Available only for free elective credit for students enrolled in the B.A. or B.S. program in Biological Sciences. Not available for credit for students in the master of science program in biological sciences. Course provides prospective and in-service teachers with experiences in laboratory skills and techniques used in the teaching of biological sciences at the secondary level. Emphasis placed on scientific methodology, data collection, and analysis.

BIOS 4114 Biochemistry and Molecular Biology Laboratory 4cr.
Prerequisites: BIOS 3453 or BIOS 3104. An introduction to biochemical and molecular biological laboratory techniques including enzymology, electrophoresis, column chromatography, tissue fractionation, restriction mapping, and DNA sequencing. Two hours of lecture and four hours of laboratory.

BIOS 4153 Molecular Biology 3cr.
Prerequisite: BIOS 3453. Structure and organization of DNA and chromatin, DNA replication, repair, transcription and RNA processing, protein biosynthesis and turnover, transcriptional and post-transcriptional control mechanisms. Examples of the above topics from eucaryotic and procaryotic cells and viruses.

BIOS 4334 Cell Physiology 4cr.
Prerequisites: BIOS 2114 and MATH 2314. BIOS 3104 is recommended. The function of cells and cell organelles interpreted in terms of ultrastructure, biochemistry, and biophysics. Three hours of lecture and four hours of laboratory.

BIOS 4343 Endocrinology 3cr.
Prerequisites: BIOS 3354. Comparative endocrinology of vertebrates.

BIOS 4353 Comparative Animal Physiology 3cr.
Prerequisites: BIOS 3354. A comparative study of physiological mechanisms and specialization of invertebrates and vertebrates as related to homeostasis, ecology, and phylogeny. Three hours of lecture.

BIOS 4373 Biology of Aging 3cr.
Prerequisite: BIOS 3453 or BIOS 3104. An examination of current ideas of the causes and effects of biological aging at the organismic and cellular levels. Topics will include population dynamics, evolution, and cellular genomic and stochastic processes.

BIOS 4384 Plant Physiology 4cr.
Prerequisite: BIOS 2114. A study of plant functions, including hormonal systems, photosynthesis, water relations, adaptations to environment stress, photomorphogenesis and photoperiodism. Three hours of lecture and four hours of laboratory.

BIOS 4414 Animal Development 4cr.
Prerequisite: Three biology credit hours at or above the 3000 level. A detailed examination of the evolutionary patterns and mechanisms of animal development. The underlying cellular and molecular mechanisms of development are emphasized in lecture. The laboratory portion of the course emphasizes the developmental anatomy of vertebrates. Three hours lecture, three hours laboratory.

BIOS 4490 Special Topics in Physiology and Cell Biology 1-4cr.
Prerequisites:BIOS 2114; additional prerequisites may be established for each Special Topics course offered. Prerequisite information must be obtained from the departmental office prior to registration. Treatment of advanced specialized subjects in physiology, biochemistry, cell and molecular biology. Topics will vary each semester. Lecture and/or laboratory. Section number will correspond with credit to be earned.

BIOS 4513 Population Genetics and Evolution 3cr.
Prerequisites: BIOS 2014 and MATH 1125. An introduction to the mathematical and quantitative theory of evolutionary processes. Topics include, but are not confined to, mutation, natural selection, genetic drift, quantitative variation, and speciation.

BIOS 4523 Evolutionary Ecology 3cr.
Prerequisite: credit in BIOS 2014 and either PSYC 1310 or MATH 2314. An application of basic principles of population genetics and ecology to a series of contemporary topics in evolutionary ecology. Discussion sections (one hour) based on assigned readings in the primary literature presentations (two hours).

BIOS 4590 Special Topics in Organismic Biology 1-4cr.
Prerequisites: BIOS 2014; additional prerequisites may be established for each Special Topics course offered. Prerequisite information must be obtained from the departmental office prior to registration. Treatment of advanced specialized subjects in ecology, evolution, and systematics. Topics will vary each semester. Lecture and/or laboratory. A field service fee may be required in this course. Section number will correspond with credit to be earned.

BIOS 4624 Limnology and Oceanography 4cr.
Prerequisite: BIOS 2014. Physiochemical and biological dynamics of fresh and estuarine waters. Two hours of lecture and four hours of laboratory. A field service fee is required in this course.

BIOS 4634 Marine Ecology 4cr.
Prerequisite: BIOS 3653 or consent of department. Relationships of marine and estuarine organisms to environmental factors; interactions among organisms; ecological processes of energy and materials flow; field studies of communities and ecosystems of Louisiana coastal zone. Five weeks at a Louisiana Universities Marine Consortium coastal laboratory. Summers only.

BIOS 4644 Animal Behavior 4cr.
Prerequisite: BIOS 2014 and either BIOS 3654 or 3354. An examination of ethological methods and theory, including historical and comparative aspects, the evolution of social behavior and societies, and the theory of sociobiology. An independent research project on some aspect of behavior, with a paper and an oral presentation summarizing the results of the project, is required. Three hours lecture and three hours of laboratory.

BIOS 4713 Advanced Microbiology 3cr.
Prerequisites: BIOS 2014 and BIOS 2114. Either BIOS 3104 or 3453 is recommended. A study of the three domains of life: Bacteria, Archea, and Eukarya, emphasizing the diversity and evolution of these organisms. This course will also stress the topics of Microbial cell structure, metabolism, ecology, genetics, virology, and pathogenesis with emphasis on our current understanding of how microorganisms communicate with and adapt to their environment on a molecular level. This course is designed for students interested in post-graduate work in medicine, biotechnology, or research in molecular and cell biology as well as microbiology.

BIOS 4714 Microbial Physiology 4cr.
Prerequisites: BIOS 3754 and 3104 or consent of department. Concepts of microbial nutrition, metabolism, adaptation, and cellular control. Three hours of lecture and three hours of laboratory.

BIOS 4724 Marine Microbiology 4cr.
Prerequisite: Consent of department. Introduction to the estuarine and marine microbes, especially bacteria and fungi; covers classification, methodology, role in marine ecosystems, biogeochemical cycles, and diseases of marine animals. Five weeks at a Louisiana Universities Marine Consortium coastal laboratory. Summers only.

BIOS 4814 Marine Botany 4cr.
Prerequisite: BIOS 3854 or consent of department. Study of marine and coastal algae and vascular plants including classification morphology life cycles and ecology; emphasis on field and laboratory studies. Five weeks at a Louisiana Universities Marine Consortium coastal laboratory. Summers only.

BIOS 4833 Terrestrial Plant Ecology 3cr.
(BIOS 4833 and GEOG 4833 are cross-listed). Prerequisite: Consent of department. A broad overview of the specialized branches of plant ecology which will examine the essential interactions between plants and their environment. The focus of the course will be threefold: first, theoretical considerations providing students a solid background from which to examine plant environment interactions; second, the dynamic processes that continually shape the structure of plant communities; third, methodologies for sampling and analyzing plant communities. At least two field trips can be anticipated.

BIOS 4844 Plant Taxonomy 4cr.
Prerequisite: BIOS 2014. Identification and ecology of local flora as well as the classification and evolution of vascular plants. Numerous field trips will be scheduled. Two hours of lecture and four hours of laboratory. A field service fee is required in this course.

BIOS 4913 Zoogeography 3cr.
Prerequisite: BIOS 3653 or consent of department. Global patterns of animal distribution: present and past.

BIOS 4914 Biology of Fishes 4cr.
Prerequisite: BIOS 2014. In addition, BIOS 2954 and 3653 recommended. Life histories, adaptations, and ecology of fishes. Three hours lecture and four hours of laboratory. A field service fee is required in this course.

BIOS 4924 Herpetology 4cr.
Prerequisite: BIOS 2014. Introduction to the study of morphology, adaptation, classification, distribution, and ecology of amphibians and reptiles. Field work and identification of North American groups and field studies of local fauna. Two hours of lecture and six hours of laboratory. A field service fee is required.

BIOS 4934 Marine Invertebrate Zoology 4cr.
Prerequisite: consent of department. General study of the classification, structure, function, and ecology of marine and estuarine invertebrates, emphasizing field studies on the Louisiana Gulf Coast. Five weeks at a Louisiana Universities Marine Consortium coastal laboratory. Summers only.

BIOS 4944 Invertebrate Zoology 4cr.
Prerequisites: BIOS 2014 and 2114. Emphasis on morphology, systematics, physiology, embryology, evolution, and ecology. Three hours of lecture and three hours of laboratory. A field service fee is required in this course.

BIOS 4954 Biology of the Higher Vertebrates 4cr.
Prerequisite: BIOS 2014 and three additional hours of biological sciences credit above the 1000-level. A study of morphology, adaptation, classification, distribution, and ecology of birds and mammals. Field work and identification of North American species. Three hours of lecture and four hours of laboratory. A field-service fee is required in this course.

BIOS 4974 Entomology 4cr.
Prerequisite: BIOS 1081, BIOS 1083, and BIOS 2014. Morphology, physiology, and control (physical, biological, and chemical) of common insects. Three hours of lecture and three hours of laboratory. A field service fee is required in this course.

BIOS 4994 Marine Vertebrate Zoology 4cr.
Prerequisite: BIOS 2954 or consent of department. General study of the marine chordates with particular emphasis on the fishes, including classification, structure, function, and ecology. Five weeks at the Louisiana Marine Consortium Coastal Laboratory. Summers only.

BIOS 6003 Practicum In Conservation Biology 3cr.
Prerequisite: consent of department. This course will expose students to hand-on problem-solving as part of an interdisciplinary team. Students will do projects in conservation management in small groups working with other appropriate team members from outside the department and/or the community. Team members can include other scientists such as geologists and geographers or professionals, land use planners, and curators.

BIOS 6005 Contemporary Plant Science for Biology Teachers 3cr.
Prerequisite: consent of department. Not available as credit for students enrolled in the graduate program in Biological Sciences. A series of lectures, demonstrations, discussions, and student projects designed to expose students to new areas of plant science and update participants in the classical aspects of botany. Topics will include: tissue culture, economic botany, microtechnique histology, and regulation of growth and development. Three hours of lecture.

BIOS 6007 Cell and Molecular Biology for Teachers 3cr.
Prerequisite: consent of department. Not available as credit for students enrolled in the graduate program in Biological Sciences. A series of lectures and demonstrations designed to expose students a basic background in the areas of cell and molecular biology using biochemical explanations when necessary. Topics will include cellular organelles and metabolism, biological macromolecules, construction and function of DNA, transcription and translation of proteins.

BIOS 6013 Topics in Biochemistry and Physiology 1-4cr.
Prerequisite: consent of department. In-depth lectures and literature-based discussions on selected topics of current interest in biochemistry and physiology. Selected topics may include protein structure and function, metabolic pathways, regulation of enzyme activity, nucleic acids, endocrinology, osmoregulation and comparative biochemistry and physiology.

BIOS 6022 Scientific Communication 2cr.
Review of techniques for effective oral and written communication of scientific information, such as data, data analysis, conclusions, and hypotheses. Topics include organization and preparation of oral and poster presentations, data presentation in abstracts and manuscripts, and writing, revising, and editing abstracts, grants, and manuscripts. One hour of lecture and two hours of laboratory.

BIOS 6023 Topics in Cellular and Molecular Biology 1-4cr.
Prerequisite: consent of department. In-depth lectures and literature-based discussions on selected topics in cellular and molecular biology. Selected topics may include regulation of cell cycle, cell-to-cell communication, cytoskeleton, cellular organelles, cell sorting, membrane function, structure and functions of nucleic acids, DNA replication, transcription and translation, and immunology.

BIOS 6032 Reproductive Biology Seminar 2cr.
Prerequisite: Consent of department. Students and faculty will discuss timely topics in reproductive biology. Graduate students will select current journal articles with the advice of the instructor and lead the discussion of those articles in the seminar. Two hours of discussion. May be repeated with the consent of the department.

BIOS 6033 Topics in Marine Science 1-4cr.
Prerequisite: consent of department. In-depth lectures and literature-based discussions on selected topics of current interest in marine science. Credit given for Louisiana Marine Consortium (LUMCOM) courses which are offered for graduate credit only. Students should request a list of proposed offerings from the Department of Biological Sciences in the spring semester.

BIOS 6043 Topics in Genetics and Development 1-4cr.
Prerequisite: consent of department. In-depth lectures and literature-based discussions on selected topics in genetics and development biology. Selected topics may include cytogenetics, structure and function of chromosomes, genetic recombination, microbial genetics, gamete structure and function fertilization, organogenisis and embryology.

BIOS 6052 Systematics & Evolution Seminar 2cr.
Prerequisite: Consent of the department. Students and faculty will discuss timely topics in systematics and evolution. Graduate students select current journal articles with the advice of the instructor and lead the discussion of those articles in the seminar. Two hour of discussion. May be repeated with consent of the department.

BIOS 6053 Topics in Systematics and Evolution 1-4cr.
Prerequisite: consent of department. In-depth lectures and literature-based discussions on selected topics of current interest in systematics and evolution. Selected topics may include historical biogeography, evolutionary processes, population genetics, macroevolution, biochemical systematics and molecular evolution.

BIOS 6062 Ecology and Evolution Seminar 2cr.
Prerequisite: consent of department. Students and faculty will discuss timely topics in ecology and evolution. Graduate students will select current journal articles with the advice of the instructor and lead the discussion of those articles in the seminar. Two hours of discussion. May be repeated for credit with permission of the Department.

BIOS 6063 Topics in Ecology and Environmental Science 1-4cr.
Prerequisite: consent of department. In-depth lectures and literature-based discussions on selected topics of current interest in ecology and environmental biology. Selected topics may include limnology and oceanography, environmental pollution, conservation biology, population ecology, physiological ecology and community ecology.

BIOS 6073 Special Topics in Organismal Biology 1-4cr.
Prerequisite: consent of department. In-depth lectures and literature-based discussions on selected topics in organismal biology. Selected topics may include ichthyology, phylogenetic analysis, multivariate analysis, biological nomenclature and evolution of sexual reproduction.

BIOS 6082 Conservation Biology Seminar 2cr.
Prerequisite: consent of department. Students and faculty will discuss timely topics in Conservation Biology. Graduate students will select current journal articles with the advice of the instructor and lead the discussion of those articles in the seminar. Two hours of discussion. May be repeated for credit with permission of the Department.

BIOS 6083 Topics in Conservation Biology 1-4cr.
Prerequisite: consent of department. In-depth lectures, literature based discussions, and laboratory or field exercises on selected topics on current interest and application in conservation biology. Topics may include endangered species, parasitic organisms and conservation biology, conservation of aquatic communities, conservation of plant biodiversity, and wetland restoration.

BIOS 6090 Biological Problems 1-4cr.
Offered each semester. Independent studies by written approval of the departmental graduate program committee and the supervising professor. This course may not be taken under the direction of the student's thesis advisor. Students enrolled in the M.S. or Ph.D. programs in Biological Sciences may earn a maximum of four credit hours in this course.

BIOS 6091 Graduate Seminar 1cr.
Offered each semester. Students and faculty will discuss their research work or timely topics in biological sciences. One hour of lecture-discussion to be taken four times for credit.

BIOS 6103 Molecular Biology 3cr.
Prerequisites: consent of the department. A study of the molecular biology of gene expression in both prokaryotes and eukaryotes. This course will explore details of DNA replication, recombination, mutagenesis, DNA repair, the structure of viral, prokaryotic and eukaryotic genes, and the transcriptional control of gene expression. Selected examples from literature will be discussed.

BIOS 6303 Cryobiology 3cr.
Prerequisites: BIOS 4334, 4413, and CHEM 1017, 1018. Fundamental physiology as it applies to cells and tissues exposed to near-zero and sub-zero temperatures and to non-physiological solutions and to crystalline and vitrified solutions. Spring semester and even years.

BIOS 6313 Reproductive Biology 3cr.
Prerequisites: BIOS 3104 and one of the following: BIOS 4334, BIOS 4353, BIOS 4413, or consent of department. A study of the mechanisms regulating reproductive biology with an emphasis on mammalian species. Topics include, but are not limited to endocrine function, male and female reproduction physiology, spermatogenesis, oogenesis, fertilization, implantation, paturition and assisted reproductive techniques.

BIOS 6353 Environmental Physiology of Animals 3cr.
Prerequisite: BIOS 3354 or equivalent. An examination of physiological mechanisms animals employ to cope with environmental challenges. Mechanisms and their controls will be studied at multiple levels of organization. Topics may include physiological and biochemical responses to energetic, osmotic and thermal stress as they occur in natural and altered environments.

BIOS 6513 Systematics 3cr.
Prerequisite: consent of the department. A review of the principles, practices, and applications of systematics. Topics may include systematic theory, species concepts, speciation, phylogeny reconstruction, principles and practices of classification, conservation units, and historical biogeography. Three hours of lecture and discussion.

BIOS 6603 Conservation Ecology 3cr.
Prerequisite: General Ecology and consent of the department. Selected topics in advanced ecology and their application to conservation. Topics may include demography, population declines and disappearances, metapopulations, habitat fragmentation, factors affecting biodiversity, effects of biodiversity on stability and ecosystem function, invasive species, disease ecology, global change, and restoration ecology. Three hours of lecture and discussion.

BIOS 6653 Ecology for Teachers 3cr.
Prerequisite: Consent of the department. Not available for credit for students enrolled in the graduate program in Biological Sciences. An exploration of major concepts in modern ecology for middle- and high-school science teachers. Each concept is introduced with a lecture/discussion covering its theoretical background and significance, followed by practical exercises that provide the basis for developing grade-appropriate exercises that can be implemented in the classroom. Topics include adaptation to the environment, population dynamics, community ecology, and energy flow in ecosystems.

BIOS 6953 Entomology for Teachers 3cr.
Prerequisite: Consent of the department. Not available for credit for students enrolled in the graduate program in Biological Sciences. A course for science teachers designed to develop expertise in entomology and the use of insects for illustrating a range of concepts in biology. Topics covered will include insect structure, function, diversity, ecology, and behavior, and will include practical exercises that can provide the basis for grade-appropriate exercises to be implemented in the classroom.

BIOS 7000 Thesis Research 1-9cr.
Offered each semester. By arrangement with the graduate adviser. To be repeated for credit until thesis is accepted. Three hours of laboratory work per credit hour. Section number will correspond with credit to be earned.

BIOS 7040 Examination or Thesis Only No credit 0cr.
Open to students in the thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

BIOS 7050 Dissertation Research 1-9cr.
Prerequisite: Approval of the candidate's guidance committee. Preparation of dissertation under the direction of the major professor and guidance committee. Section number will correspond with credit to be earned. May be repeated for credit until dissertation is accepted.

Business Administration

BA 1000 Introduction to Business Administration 3cr.
An elementary survey of business administration. Introduces the business or non-business major to basic concepts of economics, business management and decision-making in the functional areas of production, marketing, and finance. Emphasis on the effects of social, ethical, economic, technological, political, and economic environmental factors upon business operation. Not open to students enrolled in a degree program in the College of Business Administration who have completed 30 hours of University credit or more.

BA 1001 Introduction to Entrepreneurship 3cr.
Prerequisite: junior standing or consent of instructor. This course will focus on the development of managerial skills and behaviors of successful entrepreneurs in small organizations and intrepreneurship in large organizations. Students will examine major internally-orientated topics (e.g goal setting, leadership) and external topics (e.g, networking, negotiating.) The course will be taught by extensive use of diagnostic instruments, experiential exercises, case discussions, and guest lectures by successful and unsuccessful practitioners.

BA 3080 Corporate Social Responsibility 3cr.
Offered each semester. Investigates the elements which form the ethical standards of the United States corporate community and the philosophical, religious, and cultural roots of such standards. Reading in ethical problems of advertising, pricing, automation, and business involvement in solution of social problems. Includes case studies and simulations.

BA 3090 Internship in Entrepreneurship 3cr.
Prerequisite: Consent of department. This course will permit undergraduates to be engaged in at least ten hours per week at the site of a private sector organization that directs interns in specific projects or job duties relating to entrepreneurial activities. There are no textbooks and no formal class meetings, although students are required to meet one-on-one with the instructor to review their progress. Students prepare a major written report on their experience.

BA 3091 Independent Study in Entrepreneurship 3cr.
Prerequisite: consent of department. This tutorial is arranged individually in order to provide the opportunity for specialized study and research on topics in entrepreneurship. The faculty member will arrange a study/research proposal with each student in the initial meeting. Weekly project reports, meetings, and a research paper are required.

BA 4048 International Business Law 3cr.
Prerequisite: BA 3010. Law as it relates to international business organizations and commercial transactions. Among the subjects covered are sovereign immunity and international treaties and agreements; foreign antitrust laws and unfair trade practices; protection of property rights of American subsidiaries abroad; alien investment in the United States; foreign relations law; trade liberalization; and international arbitration.

BA 4056 Entrepreneurship and New Business Ventures 3cr.
Prerequisite: senior standing or consent of instructor. An examination of the crucial factors involved in the conception, initiation, and development of new business ventures. The elements of a business plan for a new venture are examined. Topics include the nature of entrepreneurs and entrepreneurship, market and feasibility analysis, sources of money, financial analysis and planning, ownership forms and tax considerations, and staffing and organization of the firm. A major requirement will be the development of a business plan for a new venture.

BA 4076 Small Business Consulting 3cr.
Prerequisite: MANG 3401 and MKT 3501 or consent of department. A supervised learning practicum where students can apply academic knowledge in a small business situation. Hands-on experience through a consulting assignment with a small business client. Participating businesses and student teams must develop jointly a proposal which identifies factors of success in this industry, addresses the areas (problems) of concern to the entrepreneur, and specific plan of action. The student team is required to submit a written and an oral report at the end of the semester to the faculty advisor and the client. Both parties will evaluate the team report and presentation. Students are guided by the instructor but are expected to provide most of the initiative to complete the project. Small business clients will be procured through the UNO Small Business Development Center, the U.S. Small Business Administration and other local sources.

BA 4400 The Legal and Ethical Environment of Business 3cr.
A survey of basic legal and ethical topics in the areas of Constitutional law, torts, administrative agency law, contract law, international law, commercial paper law, agency law, business organizations law, antitrust and securities laws. Provides an introduction to fundamental legal and ethical concepts for pre-MBA students who have not had prior course work in these areas. Not open to undergraduate College of Business Administration majors. A student may not receive credit for both BA 3010 and BA 4400. May not be taken for graduate credit.

BA 6001 Research in Business and Economics 3cr.
Prerequisite: Math 2314. An intensive study of concepts, tools, methods, and theory of research in business and economics. Procurement and evaluation of data for use as a basis for planning, control, and operation of the business.

BA 6010 Health Care Management 3cr.
A survey of the effective management of health care organizations. Classical managerial functions and principles are examined in the light of the latest contingency theories and findings of the behavioral scientists.

BA 6011 Human Resource Management in Health Care Settings 3cr.
A broad study of the theories, techniques and legal environment pertaining to modern personnel management in health care settings. A student may not receive credit for both BA 6011 and MANG 6467.

BA 6012 Organization Behavior in the Health Care Realm 3cr.
The study of organizational behavior and enhancement of interpersonal competence in health care settings.

BA 6013 Strategic Issues in Health Care Organizations 3cr.
Prerequisite: Final semester in Health Care Management Program. A survey of strategic management and situational analysis of health care organizations. The need and rationale for strategic management in today's turbulent health care environment and how strategy is translated to practical solutions of health care industry problems.

BA 6014 Business Topics in Health Care Management 3cr.
A survey of various topics in Accounting and Finance relevant to students in the M.S. program in Health Care Management who do not have a business background. The course is not open to students in the MBA program.

BA 6040 Survey of International Business Part I 3cr.
An integrated study of management, culture, economics, finance, marketing, law, accounting, and strategy in the international business arena. Part one of a two-course sequence consisting of BA 6040 and 6041.

BA 6041 Survey of International Business II 3cr.
Prerequisite: Successful completion of BA 6040 in the immediately preceding semester or consent of MBA program director. An integrated preceding semester or consent of MBA program director. An integrated study of management, culture, economics, finance, marketing, law, accounting, and strategy in the international business arena. This course is a continuation of BA 6040.

BA 6080 Business and Society 3cr.
A review of the major ethical questions of business. Discusses the

structures of society upon business action and the place of social responsibility in corporate objectives.

BA 6097 Special Topics in Business Administration 1-4cr.
An intensive study of selected special topics in Business Administration. Topics will vary based on contemporary needs as dictated by the discipline as well as the interests of the students and the instructors. Section number will correspond with credit to be earned.

BA 6780 A Survey of Decision Making Tools for Managers 3cr.
Prerequisite: QMBE 4400 or consent of department. This course is a survey of decision making tools for business managers and students. Emphasis is on applying basic analytical, qualitative tools in the decision making process.

BA 7040 Examination or Thesis Only No credit 0cr.
Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

Chemistry

CHEM 1012 Intoductory Chemistry 3cr.
Prerequisite: Eligibility for enrollment in MATH 1115 or 1125. An introduction to basic chemistry concepts based on issues relevant to society. Intended for non-science majors, including education majors not specializing in science. Credit for both CHEM 1012 and 1017 will not be allowed.

CHEM 1014 General Chemistry for Engineers 4cr.
Spring and Fall semester. Prerequisite: successful completion of (or exemption from) MATH 1115 or 1125; or, a minimum math ACT score of 23. Also, students are expected to have had chemistry in high school. A course in the fundamentals of chemistry of particular interest to students in engineering programs. Credit cannot be earned for CHEM 1014 and either CHEM 1017 or 1018.

CHEM 1017 General Chemistry 3cr.
Offered each semester. Prerequisite: successful completion of (or exemption from) MATH 1125 or 1115; or a minimum math ACT score of 23. Corequisite: Students who register in Chemistry 1017 must also register in Chemistry 1097, a one hour, non-credit recitation section. Chemistry 1017 is a course in the fundamentals of chemistry. Students whose curricula require only one year of college chemistry will normally take CHEM 1018 and 1023 or CHEM 1018 and 1028 following satisfactory completion of this course. Three hours of lecture; the required recitation is Chemistry 1097. A portion of the grade in Chemistry 1017 will be based on participation in Chemistry 1097.

CHEM 1018 General Chemistry 3cr.
Offered each semester. Prerequisite: CHEM 1017. A continuation of CHEM 1017. Inorganic chemistry with selected topics in organic chemistry.

CHEM 1023 Introductory Chemistry Laboratory 2cr.
Offered each semester. Prerequisite: Credit in CHEM 1014, credit for or concurrent enrollment in CHEM 1018, or consent of department. Introductory lab for students who will not continue to more advanced chemistry labs. A study of basic principles of laboratory investigations and illustrations of the chemical behavior described in General Chemistry. One hour of lecture and three hours of laboratory. Credit cannot be earned for both CHEM 1023 and CHEM 1028.

CHEM 1028 General Chemistry Laboratory 3cr.
Offered each semester. Prerequisite: Credit for or concurrent enrollment in CHEM 1018 or consent of department. Introductory chemistry laboratory for students who will be taking more advanced chemistry laboratory courses or for those who wish a more rigorous course. A study of basic principles of laboratory investigations and illustrations of the course content of general chemistry courses. One hour of lecture and six hours of laboratory. Credit cannot be earned for both CHEM 1023 and CHEM 1028.

CHEM 1097 General Chemistry Recitation 0cr.
Offered each semester. Corequisite: Students who register in Chemistry 1097 must also register in Chemistry 1017. One hour of guided study in significant issues related to Chemistry 1017. A portion of the grade in Chemistry 1017 will be based on participation in Chemistry 1097.

CHEM 2025 Quantitative Analysis Laboratory 3cr.
Offered each semester. Prerequisites: CHEM 1028 and credit or concurrent registration in CHEM 2117 or permission of department. Explorations of quantitative analysis with emphasis on separation procedures, chromotography, and spectroscopy. One hour of lecture and six hours of laboratory.

CHEM 2026 Organic Synthesis Laboratory 2cr.
Offered all semesters. Prerequisites: CHEM 1028 and credit or concurrent enrollment in CHEM 2218. Emphasis on synthesis of organic compounds and analysis of products. Six hours of laboratory.

CHEM 2117 Quantitative Analysis 3cr.
Offered each semester. Prerequisite: CHEM 1018. A course in the theory of gravimetric, titrimetric, colorimetric, chromatographic, and spectrometric separations and analysis.

CHEM 2217 Organic Chemistry 3cr.
Offered each semester. Prerequisite: CHEM 1018. CHEM 2217 is an introduction to the chemistry of carbon with emphasis on the nomenclature and reactions of alkanes, alkenes, and alkynes. Emphasis is placed on the mechanistic interpretation and the stereochemical outcome of the major organic reaction pathways. Infrared and nuclear magnetic resonance spectroscopy are also introduced. Three hours of lecture and one hour of recitation.

CHEM 2218 Organic Chemistry 3cr.
Offered each semester. Prerequisite: CHEM 2217. CHEM 2218 is the continuation of CHEM 2217. Emphasis is placed on the reactivity of the major functional groups encountered in organic chemistry. Topics will include the reactions of aromatic compounds, carbonyl compounds and amines. The course will also introduce the organic chemistry of amino acids and proteins, lipids carbohydrates, and nucleic acids. Three hours of lecture and one hour of recitation.

CHEM 3027 Advanced Synthesis Laboratory 3cr.
Fall Semester. Prerequisites: CHEM 2026 2218 and completion of or registration in CHEM 3411. A Laboratory course of techniques and skills beyond those learned in CHEM 2026 including an examination of principles and approaches used in the practice of synthetic chemistry. One hour of lecture and six hours of laboratory.

CHEM 3094 Undergraduate Research 3cr.
Offered each semester. Prerequisites: consent of department and departmental approval of research arrangements prior to registration. Individual research under the guidance of a departmental faculty member. A written report of the work carried out will be submitted by the student to the faculty of the departmental division in which the research is done. The student may also be requested to present a seminar on higher research. May be taken twice for credit.

CHEM 3099 Senior Honors Thesis 1-6cr.
Offered each semester. Prerequisite: consent of department and Honors Program director. Senior honors thesis research in chemistry under the direction of a faculty member. To be repeated until thesis is accepted. Section number will correspond with credit to be earned.

CHEM 3411 Descriptive Inorganic Chemistry 3cr.
Prerequisite: CHEM 1018. CHEM 2218 is recommended. A survey of modern inorganic chemistry as it relates to the periodic table in general, emphasizing the reactivity, mechanisms, and structure of elements and their compounds.

CHEM 4010 Marine Environmental Chemistry 4cr.
Prerequisite: Eight semester hours of introductory chemistry or consent of instructor. Chemical composition of the oceans; chemical, biological, and geological precesses in marine and estuarine environments. Offered summers only. Five weeks at a Louisiana Universities Marine Consortium Coastal Laboratory.

CHEM 4028 Physical Chemistry Laboratory 3cr
Spring semester. Prerequisites: CHEM 1028 and at least one of the following: CHEM 4317 or CHEM 4310, and CHEM 4311. A laboratory course concentrating on the experimental study of thermodynamics and kinetics of chemical reactions, as well as spectroscopic, magnetic, and electric properties of substances. This course contains a core component in oral communication. Satisfactory performance in this core will satisfy the requirement of demonstrating competence in oral communication. One hour of lecture and six hours of laboratory per week.

CHEM 4030 Laboratory Methods in Instrumental Analysis 3cr.
Fall semester. Prerequisite: Credit in CHEM 2025 and credit or registration in CHEM 4110. One hour of lecture and six hours of laboratory. Successful completion of this course satisfies the general degree requirement for oral competency.

CHEM 4110 Instrumental Analysis 3cr.
Prerequisite: Credit in CHEM 2117. An introduction to physiochemical and industrial methods of analysis.

CHEM 4121 Introduction to Modern Instrumentation 4cr.
Prerequisite: consent of department. A discussion of and laboratory exercises in hardware, software, and computer interfacing principles applicable to modern (computer interfaced) scientific instrumentation from the point of view of a practicing scientist. Two hours of lecture and six hours of laboratory per week.

CHEM 4210 Intermediate Organic Chemistry 3cr.
Spring semester. Prerequisite: CHEM 2218. A broad selection of topics such as stereochemistry, reaction mechanisms, synthesis, spectroscopy, literature searching, and nomenclature.

CHEM 4310 Physical Chemistry 4cr.
Fall semester. Prerequisites: CHEM 1018, PHYS 1062 and MATH 2112. Principles of theoretical chemistry. Four hours of lecture.

CHEM 4311 Physical Chemistry 4cr.
Spring semester. Prerequisites: CHEM 1018, PHYS 1062 and MATH 2112. Principles of chemical thermodynamics and kinetics. Four hours of lecture.

CHEM 4317 Principles of Physical Chemistry 3cr.
Spring semester. Prerequisites: CHEM 1011 or 1018, MATH 2111 and credit or concurrent registration in PHYS 1062 or 1032. An introduction to those principles and techniques of physical chemistry most applicable to studies of an interdisciplinary nature. CHEM 4311 and 4317 may not both be used for degree credit.

CHEM 4410 Advanced Physical Inorganic Chemistry 3cr.
Prerequisite: CHEM 4310. A study of the fundamental physical concepts and theory of atomic structure, group theory, bonding, magnetism, and spectroscopy essential to a concrete understanding of modern inorganic chemistry.

CHEM 4411 Descriptive Inorganic Chemistry 3cr.
Prerequisites: CHEM 2218. A survey of modern inorganic chemistry as it relates to the periodic table in general, emphasizing the reactivity, mechanisms, and structure of elements and their compounds.

CHEM 4510 Chemistry of Biological Molecules 3cr.
Prerequisite: CHEM 2218. This course is a selected survey of biochemistry, placing particular emphasis on mechanistic aspects (physical and chemical) of the highly specific molecular interactions characteristic of the chemistry found in living systems. Students may not receive credit for both CHEM 4510 and BIOS 3104. Three hours of lecture.

CHEM 6005 Experimental Chemistry for Teachers I 3cr.
Prerequisite: consent of department. A course for science teachers in the development and utilization of demonstration experiments for teaching principles of chemistry including laboratory experience with materials and techniques necessary for such experimentation. Two hours of lecture and two hours of laboratory.

CHEM 6006 Experimental Chemistry for Teachers II 3cr.
Prerequisite: consent of department. A course for science teachers in the development and utilization of demonstration experiments for demonstrating the properties of the chemical elements and their compounds including laboratory experience with materials and techniques necessary for such experimentation. Two hours of lecture and two hours of laboratory.

CHEM 6007 Experimental Chemistry for Teachers III 3cr.
Prerequisite: consent of department. A course for science teachers that provides an opportunity to participate in contemporary scientific research in chemistry and materials science. Includes individual laboratory research under the guidance of a UNO faculty member and teaching resource meetings which develop methods of incorporating modern research concepts into classroom curricula. A written report and seminar presentation are required. With departmental consent, this course may be taken twice for credit.

CHEM 6090 Specialized Readings in Advanced Chemistry 1cr.
Offered each semester. Prerequisite: consent of department. Individually directed readings in specialized areas of chemistry with frequent consultations with the instructor. When sufficient enrollment permits a seminar and/or lecture format may be utilized. Credit for this course is not acceptable toward an M.S. degree in chemistry. A maximum of four credits may be obtained but no more than two credits per semester.

CHEM 6091 Specialized Readings in Advanced Chemistry 1cr.
Offered each semester. Prerequisite: consent of department. Individually directed readings in specialized areas of chemistry with frequent consultations with the instructor. When sufficient enrollment permits a seminar and/or lecture format may be utilized. Credit for this course is not acceptable toward an M.S. degree in chemistry. A maximum of four credits may be obtained but no more than two credits per semester.

CHEM 6092 Specialized Readings in Advanced Chemistry 1cr.
Offered each semester. Prerequisite: consent of department. Individually directed readings in specialized areas of chemistry with frequent consultations with the instructor. When sufficient enrollment permits a seminar and/or lecture format may be utilized. Credit for this course is not acceptable toward an M.S. degree in chemistry. A maximum of four credits may be obtained but no more than two credits per semester.

CHEM 6093 Specialized Readings in Advanced Chemistry 1cr.
Offered each semester. Prerequisite: consent of department. Individually directed readings in specialized areas of chemistry with frequent consultations with the instructor. When sufficient enrollment permits a seminar and/or lecture format may be utilized. Credit for this course is not acceptable toward an M.S. degree in chemistry. A maximum of four credits may be obtained but no more than two credits per semester.

CHEM 6095 Seminar 1cr.
Offered each semester. All graduate students will be expected to participate in a report and discussion group in the field of chemistry of particular interest to them. May be taken for credit a maximum of six times.

CHEM 6110 Advanced Chemical Analysis 3cr.
Prerequisite: CHEM 4110 or equivalent. A discussion of the fundamental principles of analytical chemistry.

CHEM 6111 Advanced Analytical Chemistry 3cr.
Prerequisite: consent of department. A discussion of modern techniques of chemical analysis of inorganic and organic compounds, including spot tests, functional group analysis, biochemical methods, and less common volumetric techniques.

CHEM 6112 Physical Methods in Analytical Chemistry 3cr.
Prerequisite: CHEM 4110 or consent of department. Recent advances in physiochemical methods of analysis. CHEM 6112 covers electroanalytical techniques, including discussion of polarography, chronopotentiometry, coulometry, voltammetry, amperometry, electrode reactions, and electrode processes.

CHEM 6113 Physical Methods in Analytical Chemistry 3cr.
Prerequisite: Chemistry 4110 or consent of department. Recent advances in physiochemical methods of analysis. CHEM 6113 includes a discussion of spectroscopic methods, such as IR, UV, Visible, X-rays, Mass Spectrometry, Mossbauer, EPR, NMR, Fluorescence, and Atomic Absorption.

CHEM 6115 Special Topics in Analytical Chemistry 1-3cr.
In-depth study of various topics of current importance in Analytical Chemistry. Hours of credit will be specified each semester. A student may accumulate a maximum of six credit hours for this course.

CHEM 6116 Advanced Techniques in NMR Spectroscopy 3cr.
Prerequisite: CHEM 6112 or 6113 or consent of the department. Theoretical and experimental study of modern NMR spectroscopy. Topics include instrumentation, data acquisition and interpretation theory of chemical shifts, spin-spin coupling phenomena, nuclear Overhauser effects, relaxation equations and measurements, multidimensional experiments for molecular structural identification, techniques of solid samples and recent development these areas.

CHEM 6117 Advanced Mass Spectrometry 3cr.
Prerequisite: CHEM 4110 or consent of department. A detailed examination of the theory, principles, and instrumentation of modern mass spectrometry. Three hours of lecture.

CHEM 6210 Advanced Organic Chemistry 3cr.
Prerequisite: CHEM 4210 or equivalent. An advanced treatment of selected areas of organic chemistry, including the literature of organic chemistry, structural concepts, analysis, reactions, and theory.

CHEM 6211 Synthetic Organic Chemistry 3cr.
Prerequisite: CHEM 6210 or equivalent. A study of the scope and limitations of useful reactions, including strategy for the design of multistep syntheses of complex molecules.

CHEM 6212 Structural Organic Chemistry 3cr.
Prerequisite: CHEM 6210 or equivalent. The elucidation of the three-dimensional structure of organic compounds; theory and practice.

CHEM 6213 Physical Organic Chemistry 3cr.
Prerequisites: CHEM 4311 and 6210 or equivalents. The study of the energy relationships and mechanistic principles by which organic reaction processes are described and understood.

CHEM 6214 Advances in Organic Chemistry 3cr.
Prerequisite: CHEM 6210 or equivalent. An examination of recent trends in various areas of organic chemistry.

CHEM 6215 Organic Laboratory Preparations 2cr.
Prerequisites: CHEM 2027 or its equivalent and consent of department. Training in advanced synthetic techniques of organic chemistry.

CHEM 6310 Advanced Thermodynamics and Kinetics 3cr.
Prerequisite: CHEM 4311 or equivalent. An advanced treatment of the fundamental principles of thermodynamics and chemical kinetics.

CHEM 6311 Statistical Mechanics 3cr.
Prerequisites: CHEM 6310 and 6312 or equivalent. Methods of statistical mechanics and the application of these methods to the theoretical treatment of chemical problems.

CHEM 6312 Chemical Bonding and Molecular Spectroscopy 3cr.
Prerequisite: CHEM 4310 or equivalent. Introduction to quantum chemistry, theoretical and applied treatment of rotational, vibrational, electronic, and resonance spectroscopy.

CHEM 6314 Quantum Chemistry 3cr.
Prerequisites: CHEM 6310 and 6312 and consent of department. The basic principles and methods of quantum mechanics. Applications to atomic and molecular systems.

CHEM 6316 Special Topics in Physical Chemistry 3cr.
Various topics of current interest will be presented each semester. Three credits per semester; may be taken twice for credit.

CHEM 6410 Advanced Comprehensive Inorganic Chemistry 3cr.
Prerequisites: CHEM 4310, 4311 and 4410 or equivalents approved by department. A comprehensive treatment of general bonding theory, the chemistry of the nontransitional elements, and the chemistry of the transition elements including the chemistry and theoretical aspects of coordination compounds.

CHEM 6411 Advanced Comprehensive Inorganic Chemistry 3cr.
Prerequisites: CHEM 4310, 4311 and 4410 or equivalents approved by department. A comprehensive treatment of general bonding theory, the chemistry of the nontransitional elements, and the chemistry of the transition elements including the chemistry and theoretical aspects of coordination compounds.

CHEM 6412 Modern Asp Bonding Theory 3cr.
Prerequisites: at least one semester of basic quantum theory, applied group theory (or its equivalent), and consent of department. A comprehensive course in which the advanced student is instructed in the quantitative aspects of ligand field and molecular orbital theories.

CHEM 6496 Special Topics in Advanced Inorganic Chemistry 1-3cr.
Various topics of special interest will be presented each semester. Section number will correspond with credit to be earned. A student may accumulate a total of six credit hours for various offerings of this course.

CHEM 6510 Structural Biochemistry 3cr.
One-Time Waiver Prerequisite: Chemistry 4510 or Biological

Sciences 3104, or equivalents approved by the department of chemistry. A comprehensive treatment of protein/enzyme structure and function, including catalysis, mechanisms of regulation, sequence/function relationships, and structural determination.

CHEM 6511 Industrial Chemistry: Principles 3cr.
Prerequisite: applicancy status in Ph.D. program or consent of department. Extensive examination of four or five case studies of authentic industrial processes from conception to commercial viability. The course will orient students to the various developmental phases involved in industrial scale-up and will provide a vehicle for illustrating the transformation of basic chemical principles into economically feasible industrial chemical processes.

CHEM 6512 Industrial Chemistry: Polymers 3cr.
Prerequisite: applicancy status in Ph.D. program or consent of department. A comprehensive review of the synthesis and physical properties of organic, inorganic, and biochemical macromolecules with particular emphasis on modern commercial applications.

CHEM 6610 Characterization of Materials 3cr.
Prerequisites: 4310 and 4410 or with consent of the department. Comprehensive treatment of the various characterization methods used in modern materials chemistry including crystallography, diffraction methods, electron and probe microscopies, bulk magnetic, transport, optical and thermal properties, surface characterization, and methods for compositional analysis.

CHEM 6611 Materials Processing 3cr.
Prerequisites: 2218, 3411, and 4410 or with consent of the department. Comprehensive treatment of the various synthetic methods used in modern materials chemistry including coprecipitation, microemulsions, sol-gel processing, electrochemical deposition, hydrothermal technique, organic solution growth, surfactant template technique, molten salt method, VLS growth and other methods for the preparation of advanced materials.

CHEM 6696 Special Topics in Materials Chemistry 1-3cr.
Prerequisites: CHEM 6610 or with consent of the department. In-depth study of various topics of current importance to Materials Chemistry.

CHEM 7000 Thesis Research 1-9cr.
Offered each semester. To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

CHEM 7025 Procedures and Problems in Chemical Research 1-9cr.
Offered each semester. Students who receive six hours of credit in Chemistry 7000 cannot obtain more than nine hours credit in this course. Open only to students of proven ability or exceptional potential. A study of experimental research methods, the design and execution of experiments, and the analysis of experimental data. Section number will correspond with credit to be earned.

CHEM 7040 Examination or Thesis Only 0cr.
No credit. Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

CHEM 7050 Dissertation Research 1-9cr.
Offered each semester. Prerequisite: six credits in CHEM 7000 or 7025. Section number will correspond with credit to be earned. To be repeated for credit until dissertation is accepted.

Chinese

CHIN 1001 Basic Chinese 3cr.
A sequence of courses for beginners that aims at the acquisition of the four basic language skills: speaking, understanding, reading, and writing. The mastery of the basic language structures will be achieved through aural-oral exercises and practice. The Chinese writing system will be introduced from the beginning.

CHIN 1002 Basic Chinese 3cr.
A sequence of courses for beginners that aims at the acquisition of the four basic language skills: speaking, understanding, reading, and writing. The mastery of the basic language structures will be achieved through aural-oral exercises and practice. The Chinese writing system will be introduced from the beginning.

CHIN 2001 Intermediate Chinese 3cr.
Prerequisite: CHIN 1002 or consent of instructor. Continuation of all four basic language skills: speaking, understanding, reading, and writing. This course includes the presentation and discussion of cultural material such as magazines, films, records, and other audio-visual items.

CHIN 2002 Intermediate Chinese 3cr.
Prerequisite: CHIN 2001 or consent of instructor. Continuation of the development of all four basic language skills: speaking, understanding, reading, and writing. The course includes the presentation and discussion of cultural material such as magazines, films, records, and other audio-visual items.

Civil Engineering

ENCE 2301 Civil Engineering Computing and Graphics 4cr.
Prerequisite: MATH 1126 and credit or registration in ENCE 2310. Introduction to Fortran programming and spreadsheet design for civil engineering applications. Fundamental graphical concepts and related material as they apply to the technologies utilized in the field of civil engineering. Two one-hour lectures and two three-hour labs.

ENCE 2310 Elementary Surveying Measurements 3cr.
Prerequisites: MATH 1126 and credit or registration in ENCE 2301. Practical surveying measurement techniques are presented with suitable office computation methods for boundary, construction, and topographic surveys. State coordinate systems are introduced with proper use of geodetic datums (NAD 1927 to NAD 1983). Two hours of lecture and three hours of laboratory.

ENCE 2311 Mechanics of Materials Laboratory 1cr.
Offered each semester. Prerequisite: credit or registration in ENCE 2351. Selected experiments in mechanics of materials: mechanical extensometers, electric strain gauges, photoelasticity, stress concentration, surface hardness. Three hours of laboratory.

ENCE 2312 Advanced Surveying 3cr.
Prerequisite: ENCE 2310 or consent of department. Elementary vertical and horizontal control surveying with least-squares adjustment and analysis. Practical geodetic transformations are used as well as instrument adjustments and calibration. Two hours of lecture and three hours of laboratory.

ENCE 2350 Statics 3cr.
Offered each semester. Prerequisites: MATH 2108 or 2111 and PHYS 1061; credit or registration in ENCE 2301 or CSCI 1201. Vectors; two-dimensional and three-dimensional force systems; equilibrium; friction; centroids; mass moments of inertia; second moments of areas.

ENCE 2351 Mechanics of Materials 3cr.
Offered each semester. Prerequisite: ENCE 2350. Simple stress and

strain; shear, moments, stresses and deflections in beams; combined stresses; thermal stresses; statically indeterminate members; columns.

ENCE 2355 Engineering Mechanics 3cr.
Prerequisites: CSCI 1201, MATH 2108 or 2111, and PHYS 1061. Vectors; equilibrium of force systems; friction; centroids; moment of inertia; kinematics and kinetics; work and energy; impulse and momentum.

ENCE 3093 Special Problems in Civil Engineering 1cr.
Prerequisite: senior standing in engineering. Seminar, independent study, and research participation in civil engineering.

ENCE 3094 Special Problems in Civil Engineering 1cr.
Prerequisite: senior standing in engineering. Seminar, independent study, and research participation in civil engineering.

ENCE 3095 Special Problems in Civil Engineering 1cr.
Prerequisite: senior standing in engineering. Seminar, independent study, and research participation in civil engineering.

ENCE 3300 Computational Methods in Civil Engineering 3cr.
Prerequisites: Credit or registration in MATH 2221 or consent of department. Samples and populations, measures of the distribution of data, normal or Gaussian and other distributions, regression and correlation, hypothesis testing, modeling, computers and error analysis; interpolation, numerical differentiation and integration; and function approximation and data fitting for problems in civil and environmental engineering.

ENCE 3318 Principles of Hydraulics 3cr.
Prerequisites: ENME 2750 and PHYS 1062. An introductory course to the fundamentals of hydraulics and environmental water resources engineering. Fluid properties, conservative equations, flow resistance in pipes and open channels, dimensional analysis, pipe flow and pipe measurements.

ENCE 3323 Introduction to Environmental Engineering 4cr.
Prerequisites: CHEM 1018 credit or registration in ENCE 3318 or credit or registration in both ENME 3720 and ENME 3716. Topics include: water quality, water and wastewater treatment processes, air pollution control, and solid and hazardous waste management. Laboratory provides hands-on analytical experience with various pollution parameters. Three hours of lecture and three hours of lab.

ENCE 3340 Geotechnical Engineering 3cr.
Fall semester. Prerequisites: GEOL 1001, ENCE 2351 and 3318 or ENME 3720; credit or registration in ENCE 3300 and ENCE 3341. Properties and behavior of soils as engineering materials; the origin and classification of soils; permeability of soils; compressibility and strength characteristics of soils; elementary treatment of consolidation, earth pressure, and bearing capacity. Determination of engineering properties of soils in the laboratory. Two hours of lecture and three hours of laboratory.

ENCE 3341 Soil Mechanics Laboratory 1cr.
Prerequisite: credit or registration in ENCE 3340 or consent of department. Properties and behavior of soils as engineering materials. Data collection, computations, and presentation of results.

ENCE 3356 Structural Analysis 4cr.
Prerequisites: ENCE 2351 and 2301. Analysis of structures using manual and computer methods. Analysis of determinate and indeterminate structures subjected to static loads by the following methods: moment-area principles, virtual work, conjugate beam, moment distribution, displacement method.

ENCE 3390 Basic Project Management 3cr.
Prerequisites: Junior standing. Civil engineering economic analysis including equivalence, cash flow diagrams, present worth, decision analysis, estimating economic life, project definition, the project manager, planning, scheduling, critical path analysis, and project evaluation and review techniques.

ENCE 3900 Senior Honors Thesis 1-6cr.
Prerequisites: admission to the Honors Program, and approval by the director of the Honors Program and the chair of the department. Senior level research and/or design project in civil engineering. Thesis and oral examination required. May be repeated for credit with total hours not to exceed six.

ENCE 4096 Special Topics in Civil Engineering 3cr.
Prerequisite: junior standing in engineering. Courses may be taken for credit three times. No student may earn more than nine hours degree credit in courses ENCE 4096 and 4097.

ENCE 4097 Special Topics in Civil Engineering 3cr.
Prerequisite: junior standing in engineering. Courses may be taken for credit three times. No student may earn more than nine hours degree credit in courses ENCE 4096 and 4097.

ENCE 4310 Photogrammetry and Control Surveying 3cr.
Prerequisite: ENCE 2310 or consent of department. Photographic measurements and refinement, vertical and tilted photographs, planning for aerial photography, conformal coordinate systems and grids, horizontal and vertical control for photogrammetric mapping, ellipsoidal datum shifts, stereoscopic plotting instruments, orthophotos, panoramic and orbital photography, terrestrial and close-range photogrammetric control extension, and analytical rectification by single ray.

ENCE 4312 Topographic Engineering Design 3cr.
Prerequisite: ENCE 2310 or consent of department. Design of projects requiring advanced topics in surveying and mapping disciplines. Coordinate systems, horizontal and vertical control, geodetic astronomy, inertial Surveying, geodetic satellites, and photogrammetry.

ENCE 4318 Hydraulic Engineering Systems 3cr.
Prerequisite: ENCE 3318 or ENME 3720 and 3716 or consent of the department. Flow in pipe networks open channel flow; design of rigid and erodible boundary open channels; similitude and hydraulic modeling; design of hydraulic structures. Two hours of lecture and three hours of laboratory/tutorial.

ENCE 4319 Fluid Mechanics & Hydraulic Engineering Laboratory 1cr.
Co-requisite: ENCE 4318. The time will be equally split between laboratory experiments in the Hydraulics laboratory and design tutorials. The physical experiments are designed to demonstrate the continuity, energy and momentum principles; flow in hydraulic structures such as culverts, weirs, spillways, and stilling basins; steady and unsteady flow including gravity waves; rigid and mobile bed flows. The tutorials will cover: the use of applicable software for hydraulic systems and the design of hydraulic structures or components of hydraulic structures (3-hr laboratory).

ENCE 4320 Water Resources Engineering Systems 3cr.
Prerequisite: ENGL 2152, ENCE 2301 and 4318. Hydrological processes and computations; groundwater flow and hydraulics of wells;probability concepts in hydraulic design; reservoirs; hydromachinery; drainage and urban collection systems; flood mitigation; navigation; water law; economics of water resources; water resources development and systems approach. Two hours of lecture and three hours of laboratory.

ENCE 4321 Hydrology 3cr.
Prerequisite: ENCE 3318 or ENME 3720 and credit or registration in ENCE 3300. The hydrologic cycle, runoff relations, unit hydro-

graphs, flood routing, probability in hydrology, hydrologic simulation, and stochastic methods in hydrology.

ENCE 4322 Design of Water Supply and Sewer Systems 3cr.
Prerequisite: ENCE 3320. Design of water supply systems including surface water intakes, groundwater wells, pumping, pipelines, storage reservoirs, and water distribution systems. Design of urban drainage systems including: sanitary sewer systems, storm water collection systems, sewage pumping stations, and appurtenances and special structures.

ENCE 4323 Design of Water and Wastewater Treatment Systems 3cr.
Prerequisite: ENCE 3323. Design and analysis of unit operations and processes for water and wastewater treatment processes. Topics include physical, chemical, and biological unit processes. Course will focus on water and wastewater treatment plant design including comparisons of alternate treatment processes.

ENCE 4325 Waste Management 3cr.
Prerequisite: Senior standing in science or engineering or consent of the department. Solid waste management principles and practices including engineering design of integrated solid waste systems. Methods of predicting waste generation, composition, and characterization are covered. Collection, handling, treatment, and disposal of solid waste is also addressed. Recycling and reuse, engineering cost estimation, and regulatory/legal aspects of waste management are included.

ENCE 4328 Air Pollution Control 3cr.
Prerequisites: ENCE 3318 or ENME 3720, and ENME 3770 or equivalent. Air pollutants and their sources, air pollution meteorology, effect of air pollution on man, vegetation and materials, air quality standards, atmospheric sampling and analysis, dispersion of pollutants, technology of air pollution control, and combustion evaluation.

ENCE 4329 Modeling and Design in Environmental Hydraulics 3cr.
Prerequisite: Senior standing and approval of department. The hydrologic cycle and water quality; systems engineering and environmental pollution control; mathematical and statistical concepts; optimization techniques; and applications in surface subsurface water waste treatment and environmental management.

ENCE 4330 Groundwater Engineering 3cr.
Prerequisite: senior classification in Civil Engineering or Geology or consent of department. Fundamentals of fluid mechanics and geotechnical engineering applied to flow in porous media. Elements of the hydrologic cycle. Occurrence of groundwater. Hydraulics of aquifers and groundwater development.

ENCE 4340 Foundation Engineering 3cr.
Spring semester. Prerequisite: ENCE 3340 or consent of department. Application of soil mechanics principles to the design of footings, foundations, embankments, and retaining walls. Subsurfaces investigations, dewatering, deep excavations, piles, caissons and cofferdams. Case histories will be cited.

ENCE 4358 Structural Steel Design 3cr.
Prerequisite: ENCE 3356 or consent of department. Concepts of and introduction to elastic and plastic design of steel structures. Elastic design of structural elements, i.e. tension members, columns, beams, beam-columns and connections, incorporating AISC design specifications and manual. Critical comparisons of specifications with theories.

ENCE 4359 Structural Concrete Design 3cr.
Fall semester. Prerequisite: ENCE 3356 or consent of department. Theory and design of reinforced concrete beams, girders, slabs, columns, floor systems, and footings incorporating ACI Code provisions for working stress and ultimate strength design. Consideration of deflection, torsion, creep, and shrinkage. Review of experimental data and current design specifications.

ENCE 4363 Structural Design with Wood, Masonry, Aluminum and Plastics 3cr.
Prerequisites: ENCE 3356, 4358, and 4359. Introductions to structural design with wood, masonry, aluminum, and plastics; material behavior, loading, analysis, design codes.

ENCE 4364 Steel Bridge Design & Construction 3cr.
Prerequisite: ENCE 4358 and previous Work on Steel Bridge Competition. Design concepts, loadings, codes for steel bridges. Steel bridge design and construction in compliance with AISC current year competition rules.

ENCE 4386 Principles of Transportation and Highway Engineering 3cr.
Prerequisites: ENCE 3300, 3340 and credit or current enrollment in ENCE 2310, 4318, and 4321. An examination of the principles and concepts which influence transportation system performance and the analytical techniques which are employed to solve problems in transportation design, operations, and planning.

ENCE 4387 Traffic Engineering 3cr.
Prerequisites: ECNE 3386 and MATH 2314. Definition and measurement of traffic stream variables, statistical distributions, traffic stream models, and capacity of roadway and intersections.

ENCE 4390 Senior Civil Engineering Design Project 3cr.
Prerequisites: Credit or registration in ENCE 3390, 4318, 4323, 4340, 4386, and 4359. Individual or team study and evolution of a project, involving engineering design, synthesis or systems in civil engineering. Using basic information provided, a design will be developed for a comprehensive civil engineering project. The design process will consist of the following phases: information collection; generation of alternate solutions; preliminary evaluation; analysis; synthesis; review and implementation. A comprehensive written report and oral presentation are required. Not open to graduate students.

ENCE 4399 Civil and Environmental Seminar 2cr.
Prerequisite: Senior standing in degree program. Not for credit in CEE graduate program. This course addresses professional, licensure, and ethical responsibilities of the civil engineer, as well as communication concepts. Contemporary issues will be included to further develop an understanding of the impact of engineering solutions from a global and/or societal context. The ability of students to apply the fundamental knowledge of mathematics, sciences, and engineering will be tested. Passing this course is a requirement for graduation. Weekly meeting will include a one-hour lecture and a three-hour laboratory.

ENCE 4723 Ocean and Coastal Engineering 3cr.
(ENCE 4723, ENME 4723, and NAME 4723 are cross-listed). Prerequisite: ENME 3720 or ENCE 3318 or consent of the department. Elements of wind and wave generation and forecasting, tidal phenomena, hurricanes, storm surge, tsunamis, interaction of waves and wind with coastal and offshore structures, coastal and estuary processes. Design aspects of various topics are discussed and analyzed: e.g., offshore structures, spar buoys, underwater pipelines, oil production risers, coastal protection, mooring cables, vortex shedding, gas flares, beach formation, harbor resonance, structure resonance, etc. A design project is required.

ENCE 6095 Advanced Civil Engineering Problems 1-6cr.
Individual projects in selected fields of civil engineering. Independent work under the direction of a faculty member on a

subject of mutual interest. Students must find faculty sponsor. A written report will usually be required. Course may be repeated for credit but no more than a total of six credit hours may be applied towards a degree. Section number will correspond with credit to be earned.

ENCE 6096 Advanced Special Topics in Civil Engineering 3cr.
Prerequisite: consent of department. Special lectures or independent study on subjects of current interest in the various fields of civil engineering. May be taken for credit three times. No student may earn more than a total of nine hours of degree credit in courses ENCE 4096, 4097, 6096, 6097, and 6098.

ENCE 6097 Advanced Special Topics in Civil Engineering 3cr.
Prerequisite: consent of department. Special lectures or independent study on subjects of current interest in the various fields of civil engineering. May be taken for credit three times. No student may earn more than a total of nine hours of degree credit in courses ENCE 4096, 4097, 6096, 6097, and 6098.

ENCE 6098 Advanced Special Topics in Civil Engineering 3cr.
Prerequisite: consent of department. Special lectures or independent study on subjects of current interest in the various fields of civil engineering. May be taken for credit three times. No student may earn more than a total of nine hours of degree credit in courses ENCE 4096, 4097, 6096, 6097, and 6098.

ENCE 6312 Coordinate Systems in Cartography and Geodesy 3cr.
Prerequisite: consent of department. Geometric Geodesy and ellipsoidal transformations. Conformal mapping of the ellipsoid, Gauss-Kruger Transverse Mercator, Lambert Conformal Conic, Normal Mercator, Oblique Stereographic, Rectified Skew Orthomorphic, Laborde, and conformal variations. Authalic, Aphylactic, and Azimuthal Projections with computation of the geodesic. Grids and Datums of the world are covered with emphasis on Lease-Block computation legal requirements in foreign nations for geophysical and mineral exploration. Advanced theory and design computations for senior cartographers, surveyors, and civil engineers.

ENCE 6317 Stormwater Management 3cr.
Prerequisites: consent of department. Basic principles of stormwater engineering and management; widely used best management practices including stormwater detention and retention; facility analysis and design.

ENCE 6318 Water Quality Simulations 3cr.
Prerequisite: ENCE 3320. Water quality modeling from a perspective of practicality and reliability; emphasis on model calibration and verification procedures and methodologies for quantifying uncertainties associated with model predictions.

ENCE 6319 Hydraulics of Free Surface Flow 3cr.
Prerequisite: ENCE 3320. Natural and artificial open channels, steady and unsteady flow, water surface profiles, channel transitions, hydraulic jump, secondary flow, and application of energy and momentum principles.

ENCE 6320 Design of Hydraulic Structures and Systems 3cr.
Prerequisite: ENCE 3320 or equivalent. Design of hydraulic structures including consideration of types and functions of dams; hydraulic design of spillways, crest gates, outlet works, and stilling basins; design considerations for hydraulic machinery, hydroelectric power, canals, and navigation locks.

ENCE 6321 Advanced Hydrology 3cr.
Prerequisites: ENCE 4321 or equivalent CSCI 1201 or knowledge of computer programming. Application of hydrologic model simulation and stochastic methods in hydrology. Computer application for modeling of large scale problems. Emphasis upon problems of local interest such as flood control and urban drainage with examination of design alternatives.

ENCE 6322 Hydraulics and Environmental Modeling 3cr.
Prerequisite: ENME 3020 or equivalent. Hydraulic and environmental variables; dimensional analysis; design of experiments and physical models; formulation of numerical models for flow problems; and application of numerical and mathematical methods to surface and subsurface flow and environmental problems.

ENCE 6323 Sediment Transport 3cr.
Prerequisite: ENCE 3320 or consent of department. Particle size analysis, fluid-particle systems, incipient motion. Suspended and total loads, bedforms, sediment measurements. Physical and numerical modeling of sediment transport. Transport of liquid-solid mixtures in pipes.

ENCE 6324 Groundwater Hydraulics 3cr.
Prerequisite: ECNE 3340 and 4330 or equivalent. Groundwater systems and groundwater flow relationships; well hydraulics. Environmental aspects of groundwater. Hydraulic modeling of groundwater systems. Management models in groundwater.

ENCE 6325 Solid Waste Management 3cr.
Prerequisite: consent of department. Solid waste management practices, including generation, composition, collection, handling, and disposal. Recycling and reuse together with costs, marketing, and legal regulatory aspects are included.

ENCE 6327 Hazardous Waste Management 3cr.
Prerequisite: consent of department. Hazardous waste management practices: including identification and classification of waste; regulations; treatment, storage, and disposal techniques; and facilities parameters.

ENCE 6328 Advanced Hazardous Waste Materials Management 3cr.
Prerequisite: ENCE 6327. Management methods for treatment storage and disposal of hazardous materials and wastes with emphasis on current industry practices. Six field trips to commercial hazardous waste treatment and disposal facilities possibly including superfund sites.

ENCE 6330 Treatment Plant Process Microbiology 4cr.
Prerequisites: ENCE 4323; Consent of the Department. An advanced lecture and laboratory course for the biological process design engineer which will focus upon cellular microbiology and biochemistry as it directly relates to biological treatment and stabilization processes. It will address aerobic treatment anaerobic treatment and stabilization of toxic and hazardous wastes.

ENCE 6331 Treatment Plant Process Chemistry 4cr.
Prerequisites: CHEM 1011 or 1018; ECCE 4323; consent of the department. An advanced lecture and laboratory course for the process of design engineer which focuses upon aquatic chemistry as it directly relates to engineered water and wastewater treatment and stabilization processes. It includes chemical equilibria, thermodynamics, acid-base equilibria, solubility equilibria, oxidation-reduction equilibria, process kinetics, surface and colloidal chemistry, water treatment, stabilization, softening and neutralization, ion exchange, carbon adsorption, and applications of redox chemistry.

ENCE 6332 Water Treatment Processes and Design 3cr.
Prerequisites: ENCE 4322, 4323, and 6331. A comprehensive presentation of water treatment processes with their application to treatment plant design. Laboratory experiments on the principal water treatment processes. Three hours of lecture and two hours of laboratory.

ENCE 6333 Waste Water Treatment Processes and Design 3cr.
Prerequisites: ENCE 4322, 4323, and 6330. A comprehensive presentation of wastewater treatment processes with their application to treatment plant design. Laboratory experiments on biological wastewater treatment processes. Three hours of lecture and two hours of laboratory.

ENCE 6335 Pollution Prevention 3cr.
Prerequisite: ECON 2000. Identification of pollution prevention opportunities and implementation of proven methodology as defined by the United States Environmental Protection Agency. Emphasis on economic evaluation of pollution prevention practices and investments for various manufacturing and post-consumer processes.

ENCE 6336 Air Quality Monitoring 3cr.
Prerequisites: ENCE 4328 or consent of the department. Principles of measurement for ambient air quality, source testing and fugitive emissions. Both grab sampling & continuous sampling techniques and analysis methods will be studied. Standard instruments used in air quality monitoring including continuous & ambient emissions monitoring instruments/systems and regulatory aspects will be covered in the course.

ENCE 6337 Air Pollution Meteorology and Atmospheric Dispersion Modeling 3cr.
Prerequisites: ENCE 4328 or consent of the department. Fundamentals of air pollution meteorology and atmospheric dispersion of pollutants. Mathematical models including Gaussian model, use of PC-based dispersion models to predict ambient concentrations of pollutants due to point, line, area and volume source emissions. Regulatory aspects of modeling and guidelines.

ENCE 6340 Mechanical Behavior of Soils 3cr.
Prerequisite: ENCE 3340 or equivalent. Re-examination of basic principles of soil mechanics; detailed study of physicochemical nature of soils; stress states and stress-strain-time behavior; advanced theories and detailed study of shear strength of cohesionless and cohesive soils; in-depth evaluation of the strength compressibility and permeability of natural soils.

ENCE 6341 Earth Structures 3cr.
Prerequisite: ENCE 3340 or equivalent. Design of projects involving earth dams, embankments, and natural slopes; site investigation, soil properties and compaction, analysis of seepage and slope stability; seepage control and landslide prevention; performance observations and practical consideration in design and construction; and case studies of types of failures.

ENCE 6342 Dewatering and Groundwater Control 3cr.
Prerequisites: ENCE 3340 or equivalent. The study of the seepage through earthen dams, construction excavations and hydraulic structures. Properties of phreatic surfaces. Seepage pressures, piping and boiling. Construction and utilization of flow nets. Groundwater mechanics applications including flow characteristics and changes in flow due to pump and drain systems.

ENCE 6343 Advanced Soil Mechanics Laboratory 1cr.
Prerequisite: ENCE 3340 or equivalent. Laboratory measurement of soil properties from introductory to advanced techniques. Emphasis on strength, compressibility, and permeability tests.

ENCE 6344 Geotechnical Engineering for Waste Management 3cr.
Prerequisites: ENCE 3320, 3340 or equivalent. An overview of the theoretical and practical aspects of the site selection, design, construction, and performance of waste disposal facilities, state and federal regulations governing solid and hazardous waste.

ENCE 6345 Numerical Methods in Geotechnical Engineering I 3cr.
Prerequisite: ENCE 4340, ENME 3020 or consent of department. Re-examination of basic concepts from solid mechanics; constitutive models, strain-displacement relations; and use of finite difference methods, finite element methods and other numerical methods, with application to beams, slabs, and pavements.

ENCE 6346 Numerical Methods in Geotechnical Engineering II 3cr.
Prerequisite: ENCE 6345. Consolidation, flow through porous media, advanced methods applied to design and analysis of soil-structure systems; shallow and pile foundations, earth retaining structures, and limit design.

ENCE 6347 Ground Improvement 3cr.
Overview of recent methods of placement and improvement of soils for engineering construction practice. Compaction methods including vibro techniques, dynamic compaction and compaction grouting. Use of preloading and acceleration of consolidation settlement. Application of electro-kinetics in construction practice. Various methods and applicability of in-situ earth reinforcement. Excavation support methods and groundwater lowering and drainage techniques.

ENCE 6348 Numerical Methods in Civil Engineering 3cr.
Prerequisites: Computer programming skills ENME 3020 or equivalent; or consent of instructor. Numerical techniques for the formulation and solution of both discrete and continuous systems of equilibrium propagation eigenvalue and optimization problems.

ENCE 6349 Deep Foundations 3cr.
Prerequisite: ENCE 3340 and ENCE 4340. Review of pile materials, equipment and installation. Evaluation of the soil parameters for pile foundation by laboratory and field tests. Analysis and design of piles for vertical and lateral loads. Application of design procedures for drilled shafts. Use and interpretation of pile load tests. Principles of pile foundations under dynamic loads.

ENCE 6350 Matrix Methods in Structural Engineering 3cr.
Prerequisites: ENCE 3356 or equivalent, CSCI 1201 or knowledge of computer programming. Review of basic matrix operations; classical methods of structural analysis in matrix formulation; work and energy principles; analysis of structures by the flexibility and stiffness methods; development and application of computer programs for matrix methods of analysis; introduction to finite element method.

ENCE 6351 Advanced Design of Structural Systems 3cr.
Prerequisite: consent of department. Advanced design course offered on a demand basis with registration only by demonstration of adequate preparation. Design of pressure vessels, tanks, folded plates, and shell roofs; design of advanced bridge systems including orthotropic decks, box-girder bridges, and post-tensioned sectional bridges; selected advanced design topics.

ENCE 6352 Reliability Analysis in Civil Engineering 3cr.
Prerequisites: ENCE 3356, 3320,and 3340, and MATH 2314. Analysis of failure probability for civil engineering systems. Construction of load and capacity probability distributions from data. Introduction to decision theory. Applications to structures, soils, planning, hydraulics, and other civil subareas.

ENCE 6353 Advanced Mechanics of Materials 3cr.
Prerequisite: ENCE 2351. Advanced topics in mechanics of materials, including torsion of non-circular prismatic bars, shear center, unsymmetrical bending, curved beams, flat plates, elastic strain energy, and theories of failure and application to machine and structural design. One-third of course is devoted to analysis and two-thirds to synthesis and design.

ENCE 6355 Theory of Plates and Shells 3cr.
(ENCE 6355 and ENME 6355 are cross-listed) Prerequisites: ENCE 6353 and MATH 2221. Laterally loaded plates with various boundary conditions; elastic stability of plates; differential geometry of surfaces; equilibrium and strain equations; membrane theory of shells; shells of revolution with emphasis on cylindrical and spherical shells.

ENCE 6357 Geosynthetics 3cr.
Prerequisites: ENCE 3340. Functions and mechanisms of geotextiles. Design procedures using geotextiles for drainage, reinforcement and other functions. Design procedures for geogrid reinforcement. Design methods for drainage systems using geonets. Use and application of geomembranes in landfill liners. Design and construction methods using geosynthetic clay liners. Uses and design applications of geopipes and geocomposites.

ENCE 6358 Advanced Steel Design 3cr.
Prerequisites: ENME 3356 and 4358. Design of plate girders, composite beams, and connections; plastic hinges and introduction to plastic analysis of steel structures; and computer-aided design of steel space frame and introduction to steel bridge design.

ENCE 6359 Advanced Concrete Design 3cr.
Prerequisite: ENCE 3356 and 4359. Structural systems for buildings; lateral load analysis and design of shear walls; design of two-way slabs; design of biaxially loaded columns; torsion in concrete beams; introduction of prestressed concrete design; and general aspects of design.

ENCE 6360 Plastic Design of Steel Structures 3cr.
Prerequisite: ENCE 4358. Collapse mechanism and plastic analysis; stability and deformation considerations; plastic design and methods of optimization; shakedown analysis; introduction to load and resistance factor design.

ENCE 6361 Prestressed Concrete Design 3cr.
Prerequisite: ENCE 4359. Principles and methods of prestressing; design for flexure, shear, temperature, and fatigue; roof and floor framing systems, bridge construction, columns, and piles; connections and erection methods for precast members; pretensioning and posttensioning systems and procedures; and special design topics.

ENCE 6371 Structural Stability 3cr.
Prerequisites: ENCE 4358 and MATH 2221. Review of elastic column buckling; basic consideration of bifurcation; stability of frames; analysis of lateral torsional stability of beams and columns; and inelastic buckling of columns.

ENCE 6375 Design of Fixed Offshore Platforms 3cr.
(ENCE 6375 and NAME 6175 are cross-listed) Prerequisites: ENCE 3356 (or NAME 3120), ENCE 4358 (or NAME 3120), ENCE 4340, or permission of Department. Design of fixed offshore platform structures and their foundations; loadings, materials, design codes; design examples.

ENCE 6384 Traffic System Analysis 3cr.
Prerequisite: ENCE 4387. Basic concepts in traffic flow theory; generalized demand, price, and capacity relationships applied to traffic flow prediction; flow in transportation networks; and the evaluation of alternative highways and traffic engineering designs.

ENCE 6385 Design of Highways 3cr.
Prerequisite: ENCE 3386. Location of routes, vertical and horizontal alignment, mass curve computations, design of drainage structures, intersection design, pavement design, and computer applications. Each student will complete a design project.

ENCE 6386 Mass Transportation 3cr.
Prerequisite: ENCE 6384. A study of the different public transportation systems and technologies, comparison of different modes, mass transit operations, models for basic operational parameters, optimal model choice.

ENCE 6390 Engineering Project Management 3cr.
ENCE 6390, ENMG 6120, and MANG 6472 are cross-listed) Prerequisite:consent of department. Encompasses project organization structure, project planning and control. Discussions will include performance analysis based on earned value. Emphasis will be given to project management information systems. Human behavior in the project setting will be discussed.

Computer Science

General prerequisite: students may not enroll in any Computer Science course unless they have received credit for, or are eligible to enroll in, English 1157.

CSCI 1000 Introduction to Computers 3cr.
Prerequisite: eligibility for enrollment in MATH 1115. Majors in the College of Sciences may not use this course for science elective credit. Other majors should consult with their colleges concerning use of this course toward degree credit. This course is an introduction to what computers are and how they can be used. A major emphasis is on providing hands-on laboratory experience using software packages such as word processing, spreadsheets, and database management systems. Lecture topics include history of computers, organization of a computer system, computer terminology, input-output devices and media, software development and programming, future trends, and effects on human society.

CSCI 1001 Introduction to Information Systems & Technology 3cr.
Introduction to three foundational disciplines of the information technology age: electrical and computer engineering, computer science, and management information systems (MIS). Students will be provided with an overview of the three disciplines and how they interact to form a new discipline-information systems and technology. This course will be cross-listed with ENEE 1001 and MANG 1001. Students taking CSCI 1001 cannot receive credit for ENEE 1001 and MANG 1001. Also, this course may not be used to satisfy UNO's general degree requirement for computer literacy and may not be taken for credit in the Electrical Engineering program. Prerequisite: None

CSCI 1060 Introduction to Programming 3cr.
Offered each semester and summer session. Prerequisite: MATH 1115 with a grade of C or better recommended or consent of department. Introduces and applies computer techniques needed to solve problems in a procedure-oriented language. Develops programming skill necessary for students to utilize the digital computer in carrying out computational assignments for other courses. Except as provided for in individual college policies a student may receive credit in only one of CSCI 1060, 1201, and 1583.

CSCI 1201 Introduction to Programming in Fortran 3cr.
Prerequisite: MATH 1115 or MATH 1125 with a grade of C or better recommended, or consent of department. Offered each semester and summer session. Introduces and applies computer techniques needed to solve problems in a high-level programming language such as Fortran. Develops programming skills necessary for students to utilize the digital computer in carrying out computational assignments for other courses. Except as provided for in individual college policies, a student may receive credit in only one of Computer Science 1060, 1201, 1203, 1205, and 1583. Not intended for Computer Science majors.

CSCI 1203 Introduction to Programming in C 3cr.
Prerequisite: MATH 1115 or MATH 1125 with a grade of C or better

recommended, or consent of department. Offered each semester and summer session. Introduces and applies computer techniques needed to solve problems in a procedure-oriented language such as C. Develops programming skills necessary for students to utilize the digital computer in carrying out computational assignments for other courses. Except as provided for in individual college policies, a student may receive credit in only one of Computer Science 1060, 1201, 1203, 1205, and 1583. Not intended for Computer Science majors.

CSCI 1205 Introduction to Programming in C++ 3cr.
Prerequisite: MATH 1115 or MATH 1125 with a grade of C or better recommended, or consent of department. Offered each semester and summer session. Introduces and applies computer techniques needed to solve problems in a high-level programming language such as C++. Develops programming skills necessary for students to utilize the digital computer in carrying out computational assignments for other courses. Except as provided for in individual college policies, a student may receive credit in only one of Computer Science 1060, 1201, 1203, 1205, and 1583. Not intended for Computer Science majors.

CSCI 1581 Software Design and Development I Laboratory 1cr.
Prerequisite: Concurrent registration in CSCI 1583 is required. Two hours of laboratory each week to accompany CSCI 1583. Applications, exercises, and explorations in methodologies, software design, and development.

CSCI 1583 Software Design and Development I 3cr.
Prerequisite: MATH 1125 with a grade of C or better or consent of department; concurrent registration in CSCI 1581 is required. An introduction to software design and development using an object-oriented approach. Topics include designing specifying implementing and testing elementary classes; developing simple algorithms in an object-oriented programming language; programming by contract; implementing fundamental structural relations between classes. Intended primarily for Computer Science majors. Three hours of lecture. Except as provided for in individual college policies a student may receive credit in only one of CSCI 1060, 1201, and 1583.

CSCI 2025 Data Structures and Applications 3cr.
Prerequisite: Computer Science 1205. Offered each semester. A continuation of Computer Science 1205. Data structures using an object-oriented language for solving scientific and engineering problems. Topics also include linear data structures, trees, graphs, and algorithm analysis. Not allowed for credit for computer science majors.

CSCI 2103 Introduction to Object Orientation 3cr.
Prerequisite: CSCI 1060, 1201, or 1583 with a grade of C or better. May not be used for degree credit by Computer Science majors. An introduction to object orientation in programming. The topics are: object orientation as a software design methodology, objects and their implementation using classes, canonical specification of classes, generic structures, inheritance, polymorphism, and application development using objects.

CSCI 2120 Software Design and Development II 3cr.
Prerequisites: CSCI 1583 and 1581; concurrent registration in CSCI 2121 is required. (The successor course CSCI 2125 has MATH 2721 as a prerequisite; credit or concurrent registration in MATH 2721 is therefore recommended). A continuation of CSCI 1583 and 1581 with emphasis on algorithmic techniques and the structuring of larger systems. Topics include sorting and searching, recursion, inheritance and polymorphism, composition, abstract classes and interfaces, exception handling, and the model-view-controller structure. Three hours of lecture.

CSCI 2121 Software Design and Development II Laboratory 1cr.
Prerequisite: Concurrent registration in CSCI 2120 is required. Two hours of laboratory each week to accompany CSCI 2120. Applications, exercises, and explorations in methodologies for software design and development.

CSCI 2125 Data Structures 3cr.
Prerequisites: CSCI 2120, 2121, and MATH 2721. A continuation of CSCI 2120 and 2121 with emphasis on the design and implementation of structured data objects such as lists, stacks, queues, trees, and graphs; storage allocation for structured data objects.

CSCI 2450 Machine Structure and Assembly Language Programming 3cr.
Offered each semester. Prerequisites: CSCI 1060, 1201, or 1583. Assembly language programming and a survey of computer organization; structure of assemblers and loaders; introduction to operating systems.

CSCI 2467 System Programming Concepts 3cr.
Prerequisites: CSCI 2125, 2150, and 2450 or consent of department. Introduction to the concepts and tools used in systems programming. Detailed examination of computer architecture and computer system services from a user's point of view. Topics include use of operating system services such as process control services and the file management system, memory management, input-output, and command languages.

CSCI 3080 Ethics in the Computing Profession 1cr.
Prerequisites: CSCI 2125 and any CSCI 4000-level course or consent of department. Professional societies; codes of ethics; accreditation and certification; liability; software piracy; information and property; copyright; computer crime; data bank privacy; the Data Protection Act; monopoly and anti-trust questions; robotics and employment issues; VDT's and public health issues; and Trans-National Data Flow.

CSCI 3090 Undergraduate Seminar 1cr.
Offered each semester. Prerequisite: CSCI 2125 and any 4000-level CSCI course or consent of department. A seminar with topics presented by students, faculty, and guests. Students registering for the course must normally make a presentation to satisfy credit requirements. May be repeated for credit.

CSCI 3097 Problems in Computer Science 1-3cr.
Offered each semester and summer session. Prerequisites: CSCI 2467 an average of B in all CS courses attempted, and the consent of the department. May be repeated up to a maximum of six credits but only three may be counted towards satisfying CS elective requirements. Directed effort on some relatively complex computer science projects. Section number will correspond with credit to be earned.

CSCI 3099 Senior Honors Thesis 1-6cr.
Prerequisite: consent of department and Director of University Honors Program. Senior honors thesis research in computer science under the direction of a faculty member. May be repeated for a total of six credits. May not be used as a computer science elective.

CSCI 3102 Introduction to the Theory of Computation 3cr.
Prerequisites: CSCI 2125 and MATH 2721, or consent of department. An introduction to the theory of computation, including automata; computability, and complexity. Topics include automata and languages: decidability, reducability, and the Church-Turing thesis; complexity and intractability.

CSCI 3150 File Structures and Network Programming 3cr.
Programming Prerequisite: CSCI 2125. An introduction to file structures, information models, and simple network programming. Topics include physical and logical organization of files, file

processing, external data indexes such as B-trees, structured document/data formats such as XML, input/output models such as streams, and networking models such as sockets.

CSCI 3301 Computer Organization 3cr.
Prerequisites: CSCI 2120 and 2450 or consent of department. Basic sequential circuits; data representation and transfer; digital arithmetic; digital storage and accessing; control functions; input-output facilities; system organization. Students will be required to carry out digital circuit laboratory assignments.

CSCI 3601 Introduction to Database Management Systems 3cr.
Prerequisites: CSCI 2103 or 2120 and MATH 1140 or 2107 or 2111 or 2721. May not be used to satisfy the computer science elective requirement for the curriculum in Computer Science. A study of the modeling, design, and implementation of database systems. Topics include the entity-relationship model, the relational database model, object-priented database models, also data normalization, data description, and retrieval using query languages such as SQL, and database software development using current CASE tools.

CSCI 3611 Systems Analysis and Software Design 3cr.
Prerequisite: CSCI 2120 or consent of department. Introduction to the analysis, design, and implementation of large software systems. Topics include methods and tools for the structuring and modular design of large systems; organization and techniques of team programming; design evaluation and validation. Computer Science majors may only take this course for free elective credit.

CSCI 4101 Analysis of Algorithms 3cr.
Prerequisite: CSCI 2125 or consent of department. Precise definition of the concept of an algorithm; techniques for algorithm verification; analyzing algorithm performance; applications to practical algorithms.

CSCI 4125 Data Models and Database Systems 3cr.
Prerequisite: CSCI 3150 or consent of department. Methods, structures, and algorithms used for the organization, representation, and manipulation of large data bases; design and implementation of data base management systems.

CSCI 4208 Developing Advanced Web Applications 3cr.
Prerequisite: CSCI 3150 or consent of the department. Design and implementation of advanced web-based applications. Topics covered typically include: HTTP protocol, multi-tier architectures, technologies for server-side and client-side implementation, database connectivity, XML, session handling, web services, scalability and security in the web context. Substantial programming project involving the development of a database-backed web application.

CSCI 4210 Introduction to Software Engineering 3cr.
Prerequisite: CSCI 2125. Study of the software life-cycle that different applications go through, from conception to release and maintenance. Topics include: discovery of appropriate software life cycle for a given project: analysis, design and testing methods; risk management; tool support; process and product management; discussion of CMM and ISO-9003. Students will be required to develop a large project in a team setting.

CSCI 4302 Computer System Design I 3cr.
(ENEE 3583 and CSCI 4302 are cross-listed) Prerequisites: Credit or registration in ENEE 3582 and ENEE 3512, or credit in CSCI 3301 and 3401. The design process of digital computer systems is studied from the instruction set level, system architecture level, and digital logic level. Topics include machine organization, register transfer notation, processor design, memory design, and input/output considerations. Includes semester project.

CSCI 4311 Computer Networks and Telecommunications 3cr.
Prerequisites: CSCI 2125 and 2450 or consent of department. Overview of modern computer communication networks covering the theoretic multi-layered model from the top down with an emphasis on working protocols and algorithms. Topics include client-server model, common application protocols, connectionless and reliable transport, flow and congestion control, routing, switching, shared medium protocols, transmission media and network hardware.

CSCI 4350 Distributed Software Engineering 3cr.
Prerequisite: CSCI 2467 or consent of the department. A study of the concepts, the methodology, the models, and methods that address problems in the development of distributed-software applications with emphasis on distributed-object models and components.

CSCI 4401 Principles of Operating Systems I 3cr.
Prerequisites: CSCI 2467 or consent of department. An introduction to the organization of various types of operating systems; machine structure and the functions of an operating system; multiprogramming and time-sharing environments; memory management and resource allocation; virtual memory concepts; the file system and IO device handling; protection and error recovery.

CSCI 4402 Principles of Operating Systems II 3cr.
Prerequisite: CSCI 4401 or consent of department. A continuation of CSCI 4401 with emphasis on time-sharing, multiprocessing, and virtual system environments; performance measurement and evaluation; system simulation; developments in Operating System theory.

CSCI 4460 Introduction to Network and System Administration 3cr.
Prerequisite: CSCI 4401 or consent of the department. An introduction to network and system administration. Topics include processes and files; scripting; system installation; boot and shutdown; process management; daemons and services; devices and drivers; network fundamentals; network file systems; network services. Topics may also include kernel configuration; performance analysis; accounting and system logging; security. The course requires lab projects on dedicated departmental equipment.

CSCI 4501 Programming Language Structure 3cr.
Prerequisite: CSCI 2125 or consent of department. A study of the concepts of programming languages as realized in a variety of commonly used languages, with emphasis on language definition and structure.

CSCI 4510 An Introduction to Translator Construction 3cr.
Prerequisites: CSCI 4103 and 4501 or consent of department. The design and implementation of translators for programming languages. The course will cover the topics of lexical and syntactic analysis, translation, code generation, and code optimization, as well as the design and actual implementation of a compiler for a simple block-structured language such as a subset of Pascal or Ada.

CSCI 4525 Introduction to Artificial Intelligence 3cr.
Prerequisite: CSCI 2125 or consent of department. Introduction to the problem domain of artificial intelligence and the methods used to solve those problems. Topics include knowledge representation, search strategies, and surveys of principal subareas of artificial intelligence such as expert systems, natural language processing, reasoning systems, games, learning, and vision. Programming assignments in a current artificial intelligence language will be required.

CSCI 4601 Data Base Management Systems 3cr.
Prerequisite: CSCI 2120 or 2601 or consent of department. A study of the use, design, and implementation of data bases using data base management systems. Topics include current DBMS implementations and data description, manipulation, and inquiry languages.

CSCI 4620 Advanced Database Techniques 3cr.
Prerequisite: CSCI 4125 or consent of department. The scope of the basic materials presented in CSCI 4125, Data Models and Database Systems, is expanded to include advanced theoretical aspects, design methodologies, implementation, and specialized applications. The materials presented include higher-order dependencies, object-relational and object-oriented data models, implementation techniques of Database systems and Java Database Connectivity (JDBC). On the applications side, the specific requirements imposed by Deductive DBS, Geographic Information Systems, Genome Data Management, Data Warehousing and Data Mining are discussed.

CSCI 4621 Computer Security 3cr.
Prerequisites: CSCI 2125 and any one of the following: CSCI 4401 or 4125 or consent of department. Overview of security problems; physical security methods; security in multi-user systems; password mechanisms; terminal security; file security; encryption major approaches including both private- and public-key encryption methods; security in data bases access control methods and encryption; statistical databases; operating systems security; security kernels; and the Bell-Lapadula Model.

CSCI 4623 Introduction to Computer Forensics 3cr.
Prerequisite: CSCI 4621 or consent of the department. An introduction to the theory and application of computer forensics, an important area of computer security concerned with the preservation and recovery of digital evidence. Topics include: types of digital evidence, obfuscation methods used to hide digital evidence, such as steganography and encryption, tools for data preservation and recovery, techniques for ensuring data security, and legal issues in the preservation, recovery, and presentation of digital evidence. The course will include a substantial lab component.

CSCI 4631 Principles of Computer Graphics 3cr.
Prerequisite: CSCI 2125 and MATH 2511. Types of graphics hardware point plotting vector and raster technologies; techniques for defining images point vector and raster-based approaches; graphical data and program structures; image manipulation two- and three-dimensional transformations; techniques for producing perspective; hidden line removal; shading; clipping; and windowing. Applications in several fields.

CSCI 4632 Principles of Image Processing 3cr.
Prerequisite: Computer Science 2125 and Mathematics 2511. Introduction to the analysis, implementation and application of digital imaging enhancement and restoration algorithms including fundamental gray-level processing procedures, spatial and frequency-domain filtering, color image processing, methods and transforms for multi-resolution image processing and compression, and elementary image analysis techniques such as segmentation, morphology, and object representation and recognition.

CSCI 4690 Topics in Applied Computing 3cr.
Prerequisite: consent of department. Topics will vary from semester to semester. Offerings are of topical, pragmatic interest to computing practitioners. May not be used to satisfy the computer science elective requirement for the curriculum in Computer Science. (May be repeated for credit.)

CSCI 4990 Special Topics in Computer Science 3cr.
Prerequisite: Consent of department. This is an advanced course whose topic changes from semester to semester.The prerequisites change as dictated by the topic. This course may be repeated once for credit.

CSCI 6001 Software Development 6cr.
Prerequisites: acceptance into the computer science graduate program; completion of an introductory computer programming course and MATH 2107 or 2111; and consent of instructor. This course is intended for students who have been accepted into the computer science graduate program but who arrive with limited course work in computer science. An intensive course with six contact hours a week plus programming assignments. Numerous topics are covered with a general emphasis on data structures and their application toward the modular development of large software systems. CSCI 6001 will not be counted toward fulfillment of degree requirements.

CSCI 6090 Advanced Problems in Computer Science 1-3cr.
Prerequisite: consent of department. A projects course of independent work under the direction of a faculty supervisor whose sponsorship must be obtained in advance. May be repeated for up to a total of three credits. Cannot be used for degree credit by students who elect to fulfill the thesis degree requirements. Section number will correspond with credit to be earned.

CSCI 6101 Theory of Algorithms and their Complexity 3cr.
Prerequisites: CSCI 4101 or consent of department. Advanced study of algorithms and their complexity; the notions of time and space complexity; design methods, including divide and conquer, and the greedy method; polynomial and nondeterministic polynomial algorithms; the class of NP-complete algorithms.

CSCI 6110 Applied Combinatorics and Graph Theory 3cr.
Prerequisites: CSCI 4101 or consent of department. A study of combinatorial and graph theoretic techniques for complexity analysis. Includes generating functions, recurrence relations, Polya's theory of counting, planar directed and undirected graphs, and NP-complete problems of combinatorial or graph-theoretic nature. Application of techniques to analysis of algorithms in graph theory, as well as more general problems, such as sorting and searching.

CSCI 6120 Theory of Computation 3cr.
Prerequisites: CSCI 3102 or consent of department. A survey of formal models for computation. Includes Turing machines, partial recursive functions, recursive and recursively enumerable sets, the recursion theorem, Church's thesis, Godel numbering, computational complexity, uncomputability, intractability, and unsolvability.

CSCI 6130 Data Encryption and Cryptology 3cr.
Prerequisites: CSCI 4101 and MATH 2511 or consent of instructor. A study of the methods used in data encryption and related cryptologic problems. The history of early cryptography, including the Caesar shift, Vigenere table, Playfair square, and Enigma machines. Modern cryptographic problems, including the Data Encryption Standard, the key management problem, the public-key encryption, knapsack methods, number-theoretic methods, and the Rivest-Shamir-Adelman public-key cryptosystem, digital signature, the Digital Signature Standard, and cryptanalysis of knapsacks. Other cryptologic problems, including threshold schemes, zero-knowledge protocols, mental poker, and implementations on uniprocessor machines, networks, and parallel machines.

CSCI 6140 Formal Languages 3cr.
Prerequisite: CSCI 4103 or consent of department. Theory and application of formal language systems and automata. Emphasis will be placed on formal systems, the languages they generate, and techniques used to parse strings in those languages.

CSCI 6230 Distributed Database Systems 3cr.
Prerequisites: CSCI 4125 and 4311 or consent of department. A consideration of the problems and opportunities inherent in distributed databases on a network computer system. Includes distributed database design, optimization of access strategies, distributed con-

currency control, recovery in distributed databases, distributed database administration, commercial systems.

CSCI 6330 VLSI Circuit Design 3cr.
Prerequisite: CSCI 4302 and 4401. A review of microelectronics and an introduction to MOS technology, basic electrical properties of MOS circuits, MOS circuit design processes, subsystem design and layout, scaling of MOS circuits, aspects of system design and timing, structured design and testing, MOS design projects.

CSCI 6331 Advanced VLSI Design 3cr.
Prerequisite: CSCI 6330 or consent of department. Design of large digital VLSI (Very Large Scale Integration) systems using modern CAD tools and state-of-the-art testing and characterization systems.

CSCI 6340 Parallel Machines and non-von Neumann Architectures 3cr.
Prerequisite: CSCI 4401 and 4302 or consent of department. An investigation of modern parallel processing computers and generally those designed on non-von Neumann architectures.

CSCI 6350 Development of Distributed Software 3cr.
Prerequisite: CSCI 4401 or consent of the department. This course provides a systematic study of concepts, methodologies, models and methods that specifically address problems in the development of distributed software. The topics include architectural design for distributed applications, distributed object models, interface definition languages, concurrent task structuring, modeling for dynamic behavior, and static analysis and debugging for distributed programs.

CSCI 6361 Topics in Mobile Computing 3cr.
Prerequisite: CSCI 4401 or consent of department. This course provides an introduction to major topics in mobile computing, including software engineering issues for resource-constrained devices (e.g. cellular phones, palmtops), mobile databases, fault tolerance, service discovery, and wireless networking. The course has substantial theoretical and applied components. Students will be required to develop a non-trivial mobile application and prepare a class presentation on a topic in mobile computing.

CSCI 6401 Concurrent Programming 3cr.
Prerequisite: CSCI 4401 or consent of department. A systematic study of concepts, theories, methods and algorithms that specifically address problems in distributed programming. Topics include concurrency, interference, monitors and distributed programming issues, such as: synchronous and asynchronous message passing, remote procedure call, and rendezvous.

CSCI 6410 Performance Analysis of Computer Systems 3cr.
Prerequisite: CSCI 4401 or consent of the department. This course will examine models for the analysis of performance of computer systems. Topics include stochastic processes, discrete and continuous Markov chains, queuing models, and stochastic Petri models. These models will be applied to uni- and multiprocessor systems, including crossbar multiprocessor architectures, single- and multibus multiprocessors with external and distributed common memory.

CSCI 6411 Topics in Fault Tolerance and Reliability 3cr.
Prerequisite CSCI 4401 or consent of department. This course provides an introduction to major topics in fault tolerance and reliability, concentrating on distributed systems. These topics include failure modes, failure detection, logical time systems for distributed systems, N-version programming, checkpointing, optimistic and pessimistic logging schemes, software engineering issues in designing fault tolerant and reliable software, and schemes for reliable communication. Students will be required to develop a non-trivial reliable distributed application and prepare a class presentation on a topic in reliability.

CSCI 6450 Principles of Distributed Systems 3cr.
Prerequisite: CSCI 4401. A study of the concepts and design principles used in the construction of distributed computer systems. Topics include architecture and design goals; distributed time management; state and deadlock detection; name resolution; synchronization, mutual exclusion, and communication; collaborating servers; protection and security; error recovery.

CSCI 6501 Formal Methods in Programming Languages 3cr.
Prerequisite: CSCI 4501. Formal definitions and specifications for the semantics of programming languages including lambda-calculus, domain theory, and denotational descriptions of common programming language concepts.

CSCI 6510 Compiler Construction 3cr.
Prerequisite: CSCI 4510 or consent of department. Emphasis will be placed on the implementation of programming languages. Review of lexical, syntactic and semantic analysis. Topics will include code generation, optimization, run-time structures and support, attribute grammars, table-driven code generators, and data flow analysis.

CSCI 6520 Visual Programming Languages 3cr.
Prerequisite: CSCI 4101 or CSCI 4103 or CSCI 4501 or CSCI 4510 or consent of the department. An introduction to the theory, design and application of visual programming languages. Topics include: basic theory of such languages; overview of existing visual languages and their tools; visual grammars; design of graphical language elements; generalized spreadsheet language; applications and examples.

CSCI 6601 Advanced Artificial Intelligence 3cr.
Prerequisite: CSCI 4525. The area of artificial intelligence is one of the most diverse in the computing field. This course will go in-depth into one or more core AI sub-areas, as chosen by the instructor. Example sub-areas of study are machine learning, planning, natural language processing, automated deduction, etc.

CSCI 6602 Expert Systems 3cr.
Prerequisite: CSCI 4525 or consent of department. A study of the techniques, tools, and applications of expert systems. Topics include the architecture of expert systems, knowledge representation, drawing inferences, expert system tools, developing small and large knowledge systems, difficulties with expert system development, and the expert systems market. This course will also involve the design and implementation of a small expert system using a commercially available expert system shell.

CSCI 6610 Automated Deduction 3cr.
Prerequisite: Computer Science 2125, or consent of department. The course has two distinct parts. The first is mathematical logic, including Zero-Order Logic, First-Order Logic, semantic approaches and interpretations, and syntactic approaches and deductive apparati. The second part concentrates on the algorithms for performing logic, and covers resolution refutation proofs in Zero-and First-Order Logics.

CSCI 6621 Topics in Network Security and Forensics 3cr.
Prerequisite: CSCI 4621 and CSCI 4623 or consent of department. A graduate course in advanced network security and computer forensics, emphasizing the development and application of tools and techniques for securing computer networks and preservation and recovery of digital evidence in networked environments. Topics include: basic issues in network security, network intrusion detection, honeypots and honeynets, and network forensics analysis. The course will include a substantial lab component.

CSCI 6631 Advanced Computer Graphics 3cr.
Prerequisite: CSCI 4631. Commonly-used data structures for graphics displays and raster scan graphics algorithms for line and circle

drawing; polygon filling; antialiasing; curve fitting; surface fitting; two- and three-dimensional clipping, including clipping to arbitrary convex volumes; hidden-line and hidden-surface removal, including ray tracing; rendering, including local and global illumination models, texture shadows, transparency, and color effects.

CSCI 6633 Computer Vision 3cr.
Prerequisite: CSCI 4632. This course provides an overview of fundamental techniques for representing and recognizing visual patterns in two or three dimensions. Topics covered include segmentation and morphology, pattern recognition and classification, color- and text-based measures, motion analysis and optical flow, three-dimensional models from stereo imaging, knowledge-based systems and scene understanding.

CSCI 6634 Data Visualization 3cr.
Prerequisite: CSCI 4631 or consent of department. An introduction to standard techniques for displaying, exploring, and understanding non-visual data from medical, scientific, engineering, financial, or other domains. Topics covered will include visualization models, data representation, color-mapping and contouring, volume rendering, data transformations, modeling, image processing techniques, animation and user interaction.

CSCI 6635 Theory & Computer Applications for Pattern Recognition 3cr.
Prerequisites: CSCI 4525 and MATH 2511 or consent of the instructor. A study of the concepts behind pattern recognition and classification with applications in the analysis of various types of data. Topics include: design of a pattern recognition system, Bayesian decision theory, Maximum-likelihood estimation, nonparametric techniques, linear discriminant analysis, multilayer neural networks, non-metric techniques, stochastic methods, unsupervised learning and clustering (including hierarchical and online clustering, component analysis, low dimensional representations).

CSCI 6640 Computational Geometry 3cr.
Prerequisite: CSCI 4101 or consent of department. Using the fields of pattern recognition, computer graphics, image processing, and algorithm design for source material, this course will concentrate on algorithms and techniques for geometric computations. Topics include: computation of convex hulls, decomposition of polygons, polygon approximation, planar visibility, and other current topics of research. Students will be required to design and analyze a number of algorithms.

CSCI 6650 Intelligent Agents and Multi-Agent Systems 3cr.
Prerequisite: CSCI 4525 or consent of the department. An investigation of computational systems in which several intelligent agents or agents and humans, interact. Includes architectures for building intelligent agents, design and implementation of multi-agent systems, inter-agent communication languages and protocols, problem-solving, planning, learning and adaptation techniques in multi-agent systems.

CSCI 6990 Topics In Advanced Computer Science 3cr.
Prerequisite: consent of department. This is an advanced graduate-level course whose topics change from semester to semester. The prerequisites change as dictated by the topic. This course may be repeated once for credit.

CSCI 7000 Thesis Research 1-9cr.
To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

CSCI 7040 Examination or Thesis Only No Credit 0cr.
Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

Cooperative Education - Business Administration

COBA 1 Cooperative Education For Business Administration Majors 0cr.
Prerequisites: acceptance into the Cooperative Education Program and by an employing organization.

Cooperative Education - Education

COED 1 Cooperative Education For Education Majors 0cr.
Prerequisites: acceptance into the Cooperative Education Program and by an employing organization.

Cooperative Education - Engineering

COEN 1 Cooperative Education For Engineering Majors 0cr.
Prerequisites: acceptance into the Cooperative Education Program and by an employing organization.

Cooperative Education - General Studies

COGS 1 Cooperative Education For General Studies Students 0cr.
Prerequisites: acceptance into the Cooperative Education Program and by an employing organization.

Cooperative Education - Liberal Arts

COLA 1 Cooperative Education for Liberal Arts Majors 0cr.
Prerequisites: acceptance into the Cooperative Education Program and by an employing organization.

Cooperative Education - Sciences

COSC 1 Cooperative Education for Science Majors 0cr.
Prerequisites: acceptance into the Cooperative Education Program and by an employing organization.

Education

EDUC 1000 Careers in Education 1cr.
This course is taken prior to admission to the teacher education program. It is an introduction to the teacher education program. It focuses on several topics: teaching as a career, key roles assumed by educators, effective teaching, school effectiveness, critical issues associated with schooling in the 21st century, and the framework of the UNO Teacher Education Program.

EDUC 1100 Effective Teacher Communication 1cr.
This course is designed to provide opportunities for students interested in careers in education to demonstrate effective oral, written, and technological communication skills. Consideration of accommodation of differences and relationships in languages, dialects, and cultural backgrounds will also be included.

EDUC 2000 Meeting Needs of All Learners I 3cr.
Prerequisites: EDUC 1000 or concurrent enrollment in EDUC 1000. This course, the first in a three-course series (EDUC 2000, 3000, and 4000), serves to introduce education majors to a broad range of topics designed to facilitate their work as teachers of diverse learners in diverse settings. This course, as well as the two courses that follow in this series, will be presented in three modules: 1) School Structures and Educational Philosophy, 2) Diversity, and 3) Technology. Field experience is required in this course.

EDUC 2100 Children & Adolescent Development for Teachers 3cr.
This course is taken prior to admission to the teacher education

program. This course presents a balance of research findings, theory, and application relevant to the study of child development from infancy through adolescence, as developmental stages and tasks are relevant to classroom teachers. The emphasis throughout the course is on the implications and use of developmental information in classrooms.

EDUC 2200 Principles of Teaching Learning 3cr.
Prerequisites: EDUC 2000 or concurrent enrollment in EDUC 2000. This course will engage teacher candidates in discussions and activities dealing with fundamental aspects of educational philosophies, learning styles and theories, classroom management, assessment, curriculum development and lesson planning, and Louisiana state benchmarks and standards. Attention will focus on adapting instruction to meet the needs of diverse learners and the roles of educators in effective schools.

EDUC 3000 Meeting the Needs of All Learners II 3cr.
Prerequisites: EDUC 2000 and acceptance into Tier III of the teacher education program. This course, the second in a three-course series, serves to give education majors an opportunity to improve and apply the skills required for addressing the needs of diverse learners in diverse settings. This course, as well as the two other courses in this series, will be presented in three modules: 1)School Structures and Educational Philosophy, 2) Diversity, and 3) Technology. Field experience is required in this course.

EDUC 3100 Differentiated Curriculum & Instruction 3cr.
Prerequisites: Admission into Tier III. This course focuses on differentiating strategies to diagnose learner needs, adapt and modify curriculum materials, plan and implement instruction, develop assignments, and evaluate learning outcomes.

EDUC 3110 Behavior Support and Classroom Management 3cr.
Prerequisites: Acceptance into Tier III. This course focuses on classroom management within school settings. It includes procedures for group behavior management, strategies for assessing and responding to individual student behavior, using a problem-solving approach for changing behavior, and supporting appropriate behaviors in learning activities and settings.

EDUC 4000 Meeting the Needs of All Learners III 3cr.
Prerequisites: EDUC 3000 and acceptance into Tier IV of the Teacher Education Program. This course, the third in a three-course series, serves to give education majors an opportunity to advance the skills required for addressing the needs of diverse learners in diverse settings. This course, as well as the two other courses in the series, will be presented in three modules: 1) School Structures and Educational Philosophy, 2) Diversity, and 3) Technology. Field experience is required in this course, which must be taken concurrently with the student teaching experience (either EDUC 4910, EDUC 4920, EDUC 4940, or EDUC 4950). This course may not be taken for graduate credit.

EDUC 4001 Meeting the Needs of All Learners 2cr.
Prerequisite: Acceptance into the Non-degree (Post-Baccalaureate) Teacher certification Program. This course, serves to introduce post-baccalaureate certification candidates to a broad range of topics designed to facilitate their work as teachers of diverse learners in diverse settings. Topics to be covered include: diversity in the classroom (cultural, social, racial, gender, ability, ethnicity, etc.), school structure, and educational philosophy. Skills in basic computer technology (i.e., computer presentation software, word processing software, internet use and research, etc.) are required prior to enrolling in this course. Field experience is also required in this course.

EDUC 4100 Differentiated Curriculum & Instruction 2cr.
Prerequisite: Admission to Level 2 of the Non-degree (Post-Baccalaureate) Teacher Certification program or consent of department. This courses focuses on differentiating strategies to diagnose learner needs, plan instruction, deliver instruction, develop assignments, and evaluate learning outcomes. Offered for graduate credit only.

EDUC 4110 Behavior Support and Classroom Management 2cr.
Description: This course is designed to assist undergraduate teacher education students in applying principles of classroom management within school settings. The course also includes a focus on the use of effective strategies to assess individual student behavior and support appropriate behaviors in learning activities and settings.

EDUC 4200 Principles of Assessment, Teaching and Learning 2cr.
Prerequisite: Acceptance into the Non-degree (Post-Baccalaureate) Teacher Certification Program or consent of the Department. This course engages students in discussions and activities dealing with fundamental aspects of educational philosophies, learning styles and theories, an introduction to basics of school organization and governance, classroom management, curriculum development and lesson planning, benchmarks and standards, and principles of assessment. Attention is focused on adapting instruction to meet the needs of diverse learners and the roles of educators in effective schools. Offered for graduate credit only.

EDUC 4210 Human Development 2cr.
Prerequisite: Admission to Non-degree Teacher Certification program. This course presents a balance of research findings, theory, and application relevant to the study of child development from infancy through adolescence as the developmental stages are relevant to the classroom teacher. The emphasis throughout the course is on the implication and use of developmental information in providing effective classroom instruction.

EDUC 4301 Post-Baccalaureate Teaching Seminar and Internship 1cr.
This course must be taken concurrently with other specified coursework in the certification-only (non-Masters) teacher education program of study. Content of this course is performance-based and is aligned with that of the specific course in which the student is co-enrolled. Candidates will work in classroom settings with students within the age/grade level for the certification to be attained.

EDUC 4700 Practicum in the Core Block 3cr.
Prerequisite: Admission into the Practitioner Teacher Certification Program. This course addresses the key knowledge and skills necessary for new teachers to meet the needs of students in today's classrooms. Offered for graduate credit only.

EDUC 4701 Practitioner Teacher Internship I 3cr.
Prerequisites: Admission into the Practitioner Teacher Education program. This course provides the candidate with support during the first semester of their initial teaching year. Candidates complete a set of field experiences aligned with demonstrating the Louisiana Components of Effective Teaching. Candidates document their professional development via an electronic professional portfolio using artifacts resulting from the internship. Not offered for graduate credit.

EDUC 4702 Practitioner Teacher Internship II 3cr.
Prerequisites: Admission into the Practitioner Teacher Education program and EDUC 4701. This course provides the candidate with support during the second semester of their initial teaching year. Candidates complete a set of field experiences aligned with demonstrating the Louisiana Components of Effective Teaching. Candidates document their professional development via an elec-

tronic professional portfolio using artifacts resulting from the internship. Not offered for graduate credit.

EDUC 4810 Internship I - Grades PK-3 1cr.
Prerequisites: Admission into Non-degree (Post-Baccalaureate) Teacher Certification Program and enrollment in first semester of coursework in the program of study. This course provides the candidate with an initial set of field experiences aligned with targeted performance competencies. Candidates begin the development of an electronic professional portfolio using artifacts resulting from their field work. Course credit may not be applied to Masters of Education degree.

EDUC 4811 Internship II - Grades PK-3 1cr.
Prerequisites: Admission into Non-degree (Post-Baccalaureate) Teacher Certification Program and enrollment in final semester of Level I coursework in the program of study. This course provides the candidate with a set of field experiences aligned with targeted performance competencies in Level I coursework. Candidates continue documenting their professional development via an electronic professional portfolio using artifacts resulting from their field work. This course is not available for graduate credit.

EDUC 4812 Internship III - Grades PK-3 1cr.
Prerequisites: Admission into Non-degree (Post-Baccalaureate) Teacher Certification Program and enrollment in final semester of Level II coursework in the program of study. This course provides the candidate with a set of field experiences aligned with targeted performance competencies in Level II coursework. Candidates continue documenting their professional development via an electronic professional portfolio using artifacts resulting from their field work. This course is not available for graduate credit.

EDUC 4813 Capstone Internship - Grades PK-3 3cr.
Prerequisites: Admission into Non-degree Teacher (Post-Baccalaureate) Certification Program and completion of all coursework in the program of study. This course provides the candidate with a capstone experience of full time teaching. Candidates complete a set of field experiences aligned with demonstrating the Louisiana Components of Effective Teaching. Candidates document their professional development via an electronic professional portfolio using artifacts resulting from the internship. This course is not available for graduate credit.

EDUC 4820 Internship I - Grades 1-5 1cr.
Prerequisites: Admissions into Non-degree (Post-Baccalaureate) Teacher Certification Program and enrollment in first semester of coursework in the program of study. This course provides the candidate with an initial set of field experiences aligned with targeted performance competencies. Candidates begin the development of an electronic professional portfolio using artifacts resulting from their field work. This course is not available for graduate credit.

EDUC 4821 Internship II - Grades 1-5 1cr.
Prerequisites: Admissions into Non-degree (Post-Baccalaureate) Teacher Certification Program and enrollment in final semester of Level I coursework in the program of study. This course provides the candidate with a set of field experiences aligned with targeted performance competencies in Level I coursework. Candidates continue documenting their professional development via an electronic professional portfolio using artifacts resulting from their field work. This course is not available for graduate credit.

EDUC 4822 Internship III - Grades 1-5 1cr.
Prerequisites: Admissions into Non-degree (Post-Baccalaureate) Teacher Certification Program and enrollment in final semester of Level II coursework in the program of study. This course provides the candidate with a set of field experiences aligned with targeted performance competencies in Level II coursework. Candidates continue documenting their professional development via an electronic professional portfolio using artifacts resulting from their field work. This course is not available for graduate credit.

EDUC 4823 Capstone Internship - Grades 1-5 3cr.
Prerequisites: Admissions into Non-degree (Post-Baccalaureate) Teacher Certification Program and completion of all coursework in the program of study. This course provides the candidate with a capstone experience of full time teaching. Candidates complete a set of field experiences aligned with demonstrating the Louisiana Components of Effective Teaching. Candidates document their professional development via an electronic professional portfolio using artifacts resulting from the internship. This course is not available for graduate credit.

EDUC 4830 Internship I - Grades 4-8 1cr.
Prerequisites: Admission into Non-degree (Post-Baccalaureate) Teacher Certification Program and enrollment in first semester of coursework in the program of study. This course provides the candidate with an initial set of field experiences aligned with targeted performance competencies. Candidates begin the development of an electronic professional portfolio using artifacts resulting from their field work. Course credit may not be applied to Masters of Education degree.

EDUC 4831 Internship II - Grades 4-8 1cr.
Prerequisites: Admissions into Non-degree Post-Baccalaureate) Teacher Certification Program and enrollment in final semester of Level I coursework in the program of study. This course provides the candidate with a set of field experiences aligned with targeted performance competencies in Level I coursework. Candidates continue documenting their professional development via an electronic professional portfolio using artifacts resulting from their field work. This course is not available for graduate credit.

EDUC 4832 Internship III - Grades 4-8 1cr.
Prerequisites: Admission into Non-degree (Post-Baccalaureate) Teacher Certification Program and enrollment in final semester of Level II coursework in the program of study. This course provides the candidate with a set of field experiences aligned with targeted performance competencies in Level II coursework. Candidates continue documenting their professional development via an electronic professional portfolio using artifacts resulting from their field work. This course is not available for graduate credit.

EDUC 4833 Capstone Internship - Grades 4-8 3cr.
Prerequisites: Admission into Non-degree (Post-Baccalaureate) Teacher Certification Program and completion of all coursework in the program of study. This course provides the candidate with a capstone experience of full time teaching. Candidates complete a set of field experiences aligned with demonstrating the Louisiana Components of Effective Teaching. Candidates document their professional development via an electronic professional portfolio using artifacts resulting from the internship. This course is not available for graduate credit.

EDUC 4840 Internship I - Grades 6-12 1cr.
Prerequisites: Admission into Non-degree (Post-Baccalaureate) Teacher Certification Program and enrollment in first semester of coursework in the program of study. This course provides the candidate with an initial set of field experiences aligned with targeted performance competencies. Candidates begin the development of an electronic professional portfolio using artifacts resulting from their field work. Course credit may not be applied to Masters of Education degree.

EDUC 4841 Internship II - Grades 6-12 1cr.
Prerequisites: Admission into Non-degree (Post-Baccalaureate) Teacher Certification Program and enrollment in final semester of Level I coursework in the program of study. This course provides the candidate with a set of field experiences aligned with targeted performance competencies in Level I coursework. Candidates continue documenting their professional development via an electronic professional portfolio using artifacts resulting from their field work. This course is not available for graduate credit.

EDUC 4842 Internship III - Grades 6-12 1cr.
Prerequisites: Admission into Non-degree (Post-Baccalaureate) Teacher Certification Program and enrollment in final semester of Level II coursework in the program of study. This course provides the candidate with a set of field experiences aligned with targeted performance competencies in Level II coursework. Candidates continue documenting their professional development via an electronic professional portfolio using artifacts resulting from their field work. This course is not available for graduate credit.

EDUC 4843 Capstone Internship - Grades 6-12 3cr.
Prerequisites: Admission into Non-degree (Post-Baccalaureate) Teacher Certification Program and completion of all coursework in the program of study. This course provides the candidate with a capstone experience of full time teaching. Candidates complete a set of field experiences aligned with demonstrating the Louisiana Components of Effective Teaching. Candidates document their professional development via an electronic professional portfolio using artifacts resulting from the internship. This course is not available for graduate credit.

EDUC 4850 Internship I-Special Education 1cr.
Prerequisites: Admission into Non-degree (Post-Baccalaureate) Teacher Certification Program and enrollment in first semester of coursework in the program of study. This course provides the candidate with an initial set of field experiences aligned with targeted performance competencies. Candidates begin the development of an electronic professional portfolio using artifacts resulting from their field work. Course credit may not be applied to Masters of Education degree.

EDUC 4851 Internship II - Special Education 1cr.
Prerequisites: Admission into Non-degree (Post-Baccalaureate) Teacher Certification Program and enrollment in final semester of Level I coursework in the program of study. This course provides the candidate with a set of field experiences aligned with targeted performance competencies in Level I coursework. Candidates continue documenting their professional development via an electronic professional portfolio using artifacts resulting from their field work. This course is not available for graduate credit.

EDUC 4852 Internship III - Special Education 1cr.
Prerequisites: Admission into Non-degree (Post-Baccalaureate) Teacher Certification Program and enrollment in final semester of Level II coursework in the program of study. This course provides the candidate with a set of field experiences aligned with targeted performance competencies in Level II coursework. Candidates continue documenting their professional development via an electronic professional portfolio using artifacts resulting from their field work. This course is not available for graduate credit.

EDUC 4853 Capstone Internship - Special Education 3cr.
Prerequisites: Admission into Non-degree (Post-Baccalaureate) Teacher Certification Program and completion of all coursework in the program of study. This course provides the candidate with a capstone experience of full time teaching. Candidates complete a set of field experiences aligned with demonstrating the Louisiana Components of Effective Teaching. Candidates document their professional development via an electronic professional portfolio using artifacts resulting from the internship. This course is not available for graduate credit.

EDUC 4901 Extended Practice Opportunity 1cr.
Prerequisites: Recommendation for enrollment following candidate performance review. This course provides the teacher candidate with guided practice and field support to address targeted performance competencies aligned with a certification area. Candidates document their professional development via an electronic professional portfolio using artifacts resulting from their field work. This course is not available for graduate credit. May be repeated but total credit may not exceed 3 semester hours.

EDUC 4903 Extended Practice Opportunity 3cr.
Prerequisites: Recommendation for enrollment following candidate performance review. This course provides the teacher candidate with guided practice and field support to address targeted performance competencies aligned with a certification area. Candidates document their professional development via an electronic professional portfolio using artifacts resulting from their field work. This course is not available for graduate credit. May be repeated but total credit may not exceed 9 semester hours.

EDUC 4910 Student Teaching Grades 1 - 5 3cr.
Prerequisites: Acceptance into Tier IV of the Teacher Education Program and concurrent enrollment in EDUC 4000. This course is designed to provide the candidate with an opportunity to apply competencies essential for effective teaching and to assume the role of an educator within a total school program. The goal of student teaching is to have candidates operationalize the theory-practice interaction model while implementing, over an extended period of time, the principles, methods, and knowledge and materials acquired in previous coursework. Candidates seeking certification for grades 1-5 enroll in this course. Candidates also concurrently enroll in EDUC 4000, Meeting the Needs of All Learners (3 credit hours). This course is not offered for graduate credit.

EDUC 4920 Student Teaching Grades 6 - 12 3cr.
Prerequisites: Acceptance into Tier IV of the Teacher Education Program and concurrent enrollment in EDUC 4000. This course is designed to provide the candidate with an opportunity to apply competencies essential for effective teaching and to assume the role of an educator within a total school program. The goal of student teaching is to have candidates operationalize the theory-practice interaction model while implementing, over an extended period of time, the principles, methods, and knowledge and materials acquired in previous coursework. Candidates seeking certification for grades 6-12 enroll in this course. Candidates also concurrently enroll in EDUC 4000, Meeting the Needs of All Learners (3 credit hours). This course is not offered for graduate credit.

EDUC 4930 Student Teaching - Grades K-12 3cr.
Prerequisites: Acceptance into Tier IV of the Teacher Education Program and concurrent enrollment in EDUC 4000 or acceptance into Level 3 of the non-degree (Post-Baccalaureate) Teacher Education Program. This course is designed to provide the candidate with an opportunity to apply competencies essential for effective teaching and to assume the role of an educator within a total school program. The goal of student teaching is to have candidates operationalize the theory-practice interaction model while implementing, over an extended period of time, the principles, methods, and knowledge and materials acquired in previous coursework. Candidates seeking certification for grades K-12 enroll in this course. Undergraduate candidates also concurrently enroll in EDUC 4000, Meeting the Needs of All Learners III (3 credit hours). The

number of credit hours taken depends on the certification plan pursued. This course may not be taken for graduate credit.

EDUC 4940 Student Teaching Grades 4 - 8 3cr.
Prerequisites: Acceptance into Tier IV of the Teacher Education Program and concurrent enrollment in EDUC 4000. This course is designed to provide the candidate with an opportunity to apply competencies essential for effective teaching and to assume the role of an educator within a total school program. The goal of student teaching is to have candidates operationalize the theory-practice interaction model while implementing, over an extended period of time, the principles, methods, and knowledge and materials acquired in previous coursework. Candidates seeking certification for grades 4-8 enroll in this course. Candidates also concurrently enroll in EDUC 4000, Meeting the Needs of All Learners (3 credit hours). This course is not offered for graduate credit.

EDUC 4950 Student Teaching Grades PK - 3 3cr.
Prerequisites: Entry into Tier IV, concurrent enrollment in EDUC 4000. This course is designed to provide the candidate with an opportunity to apply competencies essential for effective teaching and to assume the role of an educator within a total school program. The goal of student teaching is to have candidates operationalize the theory-practice interaction model while implementing the principles, methods, and knowledge and materials acquired in previous coursework. Candidates seeking certification for grades PK-3 enroll in this course. This course is not offered for graduate credit.

EDUC 4960 Student Teaching: Special Education 3cr.
Prerequisites: Acceptance into Tier IV of the Teacher Education Program and successful completion of EDUC 4910, EDUC 4920, EDUC 4940, or EDUC 4950. This course is designed to provide the candidate with an opportunity to apply competencies essential for effective teaching and to assume the role of an educator within a total school program. The goal of student teaching is to have candidates operationalize the theory-practice interaction model while implementing, over an extended period of time, the principles, methods, and knowledge and materials acquired in previous coursework. Candidates seeking certification in Special Education enroll in this course. This course is not offered for graduate credit.

Counselor Education

EDGC 6090 Independent Research in Educational Foundations 1cr.
(EDFR 6090 and EDGC 6090 are cross-listed) Prerequisites: consent of department and major professor. Independent research under the supervision of a graduate faculty member. The course may be repeated but total credit may not exceed six semester hours. Section number will correspond with credit to be earned.

EDGC 6330 Career Counseling and Life Planning 3cr.
Prerequisite: admission to degree program or consent of department. The theory, nature, and principles of career development and counseling.

EDGC 6340 Career Counseling Techniques 3cr.
Prerequisites: EDGC 6330, 6430 and admission to degree program or consent of department. The study of techniques for delivering and integrating career development and guidance services through a variety of methods including individual and group counseling workshops, self-study programs, computer programs, and telephone hotlines. Students practice career counseling techniques within a structured setting. This course combines lecture and lab work.

EDGC 6400 Theories of Counseling 3cr.
Examination of the major theoretical approaches to counseling and their relationship to the counseling process. Analysis and evaluation of the function of theoretical constructs and their impact on counseling practice.

EDGC 6430 Counseling Techniques 3cr.
An analysis of the theory, dynamics, and practice of counseling clients. Lab experience required.

EDGC 6435 Substance Abuse Counseling 3cr.
Prerequisites: EDGC 6400, 6430 and admission to a degree program or consent of department. Theories and techniques of counseling substance abusing clients, as well as an examination of the physiological and psychological aspects of substance abuse, will be covered in this course designed for students in counseling related fields. The course will also include practice in various counseling techniques utilized in the treatment of alcohol and drug abusing clients.

EDGC 6439 Advanced Counseling Theories 3cr.
Prerequisite: admission to degree program or consent of the department. This course provides advanced instruction in the major counseling theories introduced in EDGC 6400. Students examine the original works of major theorists and develop professional expertise in several approaches to the practice of counseling.

EDGC 6440 Advanced Counseling Techniques 3cr.
Prerequisites: EDGC 6400, 6430 and admission to a degree program or consent of department. This course includes an experiential approach to the development of counseling skills and the conceptualization of client concerns. The application of principles and techniques of major counseling theories will be presented. Skill practice will be included. Lab experience required.

EDGC 6450 Group Work 3cr.
Prerequisite: EDGC 6430 and admission to degree program or consent of department. An examination of the history, contemporary research findings, and conceptual models, process issues, and ethics involved in the effective practice of group work. Participation in a group experience required.

EDGC 6452 Introduction to Multicultural Counseling 3cr.
Prerequisite: EDGC 6430 and admission to a degree program or consent of department. The application of counseling techniques to special populations with culturally different backgrounds. The course is designed to help counselors maximize their effectiveness by understanding both similarities and differences of a multicultural population.

EDGC 6460 Supervised Experience in Group Work 3cr.
Prerequisite: doctoral standing or consent of department. Through supervised experience, examination of contemporary conceptual model, and research findings which emphasize process and content issues, students will learn to lead interpersonal problem solving and task groups effectively.

EDGC 6500 Contemporary Urban Problems in Counseling 3cr.
Prerequisite: admission to degree program or consent of department. The identification and investigation of contemporary counseling problems and the examination of trends and innovations particularly adaptive to the resolution of these problems.

EDGC 6525 Employee Assistance Counseling 3cr.
Prerequisites: EDGC 6330, 6400, 6430 and admission to a degree program or consent of department. Theories and techniques of counseling employees in business and industrial settings are covered in this course designed for students in counseling and counseling related fields. Additionally, this course will acquaint students with

the history, development, functions and current research on employee assistance programs.

EDGC 6530 Student Services in Higher Education 3cr.
(EDAD 6530 and EDGC 6530 are cross-listed) A study of student personnel programs in colleges and universities. The history, philosophy, and organization; student rights and responsibilities; discipline; and administration of these programs within the context of the purpose of higher education institutions.

EDGC 6535 Human Services Counseling 3cr.
Prerequisites: EDGC 6400 and admission to degree program or consent of department. The theory and practice of counseling as applied to human services agencies. The role and function of the counselor in human services agencies are emphasized. A study of the diagnosis and treatment of mental and emotional disorders is required.

EDGC 6540 Counseling in the Community 3cr.
This course provides an overview of the theory and practice of counseling in human services agencies and other community settings. Emphasis is given to the role, function, and professional identity of community counselors, and to principles and practices of community outreach, intervention, education, consultation, and client advocacy.

EDGC 6550 School Counseling 3cr.
Prerequisite: EDGC 6400 and admission to degree program or consent of department. This course will provide an introduction to current concepts relative to the school counseling profession. Practical application of concepts within the diverse range of school environments will be covered. Structuring and implementation of a feasible comprehensive counseling program will be emphasized.

EDGC 6630 Analysis of the Individual 3cr.
Prerequisites: admission to degree program or consent of department. Qualitative and quantitative assessment of the individual in various phases of development, traits, potentialities, and accomplishments. Assessment techniques are examined with regard to health development. Developing a case study and planning treatment are included.

EDGC 6660 Crisis Intervention Counseling 3cr.
Prerequisites: EDGC 6430 and admission to a degree program or consent of department. The theory and practical application of crisis intervention techniques. Special attention is given to counseling approaches for use with circumstantial and developmental life crises.

EDGC 6810 Introduction to Supervision in Counseling 3cr.
The theories and techniques counselor supervisors utilize in providing clinical supervision to counselors. The process of administrative supervision utilized by counselor in work settings.

EDGC 6820 Organization and Administration of Guidance Services 3cr.
The organization and administration of guidance programs.

EDGC 6830 Counseling Children and Adolescents 3cr.
Prerequisites: EDGC 6400, 6430, and admission to degree program or consent of department. The study of counseling children and adolescents in elementary, middle, and high schools or community agencies. Focus on counseling theories, techniques, concepts, interventions, and skills appropriate for children and adolescents.

EDGC 6840 Family Counseling 3cr.
Prerequisite: admission to a degree program or consent of department. An introduction to the theoretical models and practitioner skills for counseling with families. The course includes specific emphasis on short-term approaches for family-related counseling problems.

EDGC 6850 Ethical and Professional Issues in Counseling 3cr.
Prerequisite: admission to degree program or consent of department. This course provides an overview of the critical professional issues in counseling with emphasis on current ethical and values-related questions and their relationship to the counselor's role in training, supervision, consultation, appraisal, and research.

EDGC 6852 Advanced Multicultural Counseling 3cr.
Prerequisites: EDGC 6452, doctoral standing or consent of department. An advanced exploration of issues involved in culturally competent counseling, counseling supervision, and counselor education. Current social and cultural issues, social change theory, oppression models, and advocacy action planning for counselors, supervisors, and counseling faculty members are addressed. All types of human diversity and equity issues in counseling, counseling supervision, and counselor education are reviewed. Students examine their own cultural heritage and racial identity development in relation to the counseling relationship, counseling supervision, and counselor education.

EDGC 6860 Introduction to Play Therapy 3cr.
Prerequisites: EDGC 6400 (Theories of Consulting), 6430 (Counseling Techniques), admission to degree program, or consent of the department. Introduction to major theories and counseling techniques specifically designed for children ages 2-15. This will include play and creative techniques applicable with various populations in numerous settings and adaptable to individual, family, and group modalities.

EDGC 6870 Advanced Play Therapy 3cr.
Prerequisites: EDGC 6400, 6430, 6860, and admission to degree program or consent of department. Advanced instruction in play therapy. Strategies for successful practice. Development of specific play therapy skills.

EDGC 6880 Advanced Counseling Interventions 3cr.
Prerequisites: EDGC 6430, 6440, 6990, master's level internship, doctoral standing or consent of department. The study of advanced interventions utilized by experienced professional counselors in providing counseling services to clients. Models and methods of assessment and use of data in evaluating client problems. Application of theory to practice.

EDGC 6895 Internship in Counseling 3cr.
Prerequisite: approved application and admission to degree program or consent of department. Observation and participation in counseling in schools, central offices, special projects, hospitals, community agencies, and other controlled clinical settings. Three hundred hours of supervised fieldwork is required. Course must be repeated for a total of six credits.

EDGC 6990 Practicum in Counseling 1cr.
Prerequisite: EDGC 6400, 6430, 6440 and admission to a degree program or consent of department. Observation and counseling in school, higher education, community, and controlled laboratory settings. Lectures, seminars, field work, and related research projects where applicable. One hundred hours of supervised fieldwork is required. Course may be repeated once for a total of six credits.

EDGC 6993 Special Topics in Counselor Education 1cr.
Prerequisite: consent of department. Topic will vary from semester to semester. Section number will correspond with the credit to be earned. Course may be repeated for a maximum of six semester hours within a particular degree program.

EDGC 6995 Independent Study in Counselor Education 1cr.
Prerequisites: consent of department and major professor. Investigation of pertinent problems under the direction of a grad-

uate faculty member. This course may be repeated but total credit may not exceed six semester hours. Section number will correspond with credit to be earned.

EDGC 6996 Advanced Supervision in Counseling 3cr.
Prerequisites: EDGC 6810 and doctoral standing or consent of department. Advanced clinical techniques of supervising counselors. Theory, research, and experience in monitoring and evaluating counselor performance during stages of the counseling process are emphasized. Ethical and legal issues in counseling supervision and counselor education. Field experience required.

EDGC 6997 Research Seminar in Counselor Education 3cr.
Prerequisite: consent of department. Doctoral students will complete their dissertation proposals under faculty supervision. Course must be completed for credit until dissertation proposal has been accepted by the student's committee. A maximum of three semester hours of credit may be counted in a degree program.

EDGC 6998 Doctoral Seminar: Consultation in Counselor Education 3cr.
Prerequisite: doctoral standing or consent of department. Discussion and analysis of the approaches and procedures of consultation services in counselor education with emphasis on applying skills to consultation problems in various counseling settings.

EDGC 7000 Thesis Research 1cr.
To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

EDGC 7040 Examination or Thesis Only No credit 0cr.
No credit. Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

EDGC 7050 Dissertation Research 1cr.
To be repeated for credit until the dissertation is accepted. Section number will correspond with credit to be earned.

Curriculum and Instruction

EDCI 3140 Materials and Methods in Elementary School Mathematics 2cr.
Prerequisites: Acceptance into Tier III and concurrent enrollment in EDCI 3141, the one-hour field component. The course is designed to develop competencies in planning, conducting, and evaluating instruction and learning in elementary school mathematics.

EDCI 3141 Field Experience: for EDCI 3140 1cr.
Prerequisite: Concurrent enrollment in EDCI 3140. This is a required one-credit-hour Field Experience that supports candidates in applying the content of EDCI 3140 within the classroom. Candidates must spend two hours weekly in preschool and school settings to implement required field activities. Candidate field work will generate artifacts to document performance of required competencies.

EDCI 3150 Materials and Methods in Elementary School Science 2cr.
Prerequisites: Acceptance into Tier III and concurrent enrollment in EDCI 3151, the one-hour field experience. The course is designed to develop competencies in planning, conducting, and evaluating instruction and learning in elementary school Social Studies.

EDCI 3151 Field Experience: for EDCI 3150 1cr.
Prerequisite: Concurrent enrollment in EDCI 3150. This is a required one-credit-hour Field Experience that supports candidates in applying the content of EDCI 3150 within the classroom. Candidates must spend two hours weekly in preschool and school settings to implement required field activities. Candidate field work will generate artifacts to document performance of required competencies.

EDCI 3160 Materials and Methods in Elementary School Social Studies 2cr.
Prerequisites: Acceptance into Tier III and concurrent enrollment in EDCI 3161, the one-hour field experience. The course is designed to develop competencies in planning, conducting, and evaluating instruction and learning in elementary school social studies.

EDCI 3161 Field Experience: for EDCI 3160 1cr.
Prerequisite: Concurrent enrollment in EDCI 3160. This is a required one-credit-hour Field Experience that supports candidates in applying the content of EDCI 3160 within the classroom. Candidates must spend two hours weekly in preschool and school settings to implement required field activities. Candidate field work will generate artifacts to document performance of required competencies.

EDCI 3240 Materials and Methods in Secondary School Mathematics 3cr.
Offered fall semester only. Prerequisite: Acceptance into Tier III. This course is designed to develop competencies in planning, conducting, and evaluating instruction in secondary school mathematics. Appropriate field experiences may be required.

EDCI 3250 Materials and Methods in Secondary School Science 3cr.
Offered fall semester only. Prerequisite: Acceptance into Tier III. This course is designed to provide experiences with programs and instructional strategies oriented toward the teaching of biological and physical science by inquiry. Appropriate field experiences may be required.

EDCI 3260 Introduction to Secondary School Social Studies 3cr.
Offered fall semester only. Prerequisite: Acceptance into Tier III. This course is designed to investigate the definition and purposes of social studies, understand recent research, trends and issues related to social studies, and introduce instructional approaches practiced in social studies education. Appropriate field experience may be required.

EDCI 3265 Teaching Social Studies Education 3cr.
Offered spring semester only. Prerequisites: Acceptance into Tier III and Curriculum and Instruction 3260 or consent of department. This course is designed to develop the skills necessary for effective social studies classroom instruction. Included are skills related to planning instruction, using instructional strategies, dealing with classroom issues and problems, and assessing student achievement and teacher performance. Field experience will be required.

EDCI 3310 Developmentally Responsive Curriculum and Instruction for Young Adolescents 2cr.
Prerequisite: acceptance into Tier III and concurrent enrollment in EDCI 3311, the field experience component. This course lays the foundation for teachers of students in the middle grades. It addresses physical, emotional, cognitive, social characteristics, and development of the young adolescent, with emphasis on psychological and physical wellness. Components of exemplary middle schools, and developmentally responsive curricular and instructional strategies.

EDCI 3311 Field Experience: for EDCI 3310 1cr.
Prerequisite: Concurrent enrollment in EDCI 3310. This is a required one-credit-hour Field Experience that supports candidates in applying the content of EDCI 3310 within the classroom. Candidates must spend two hours weekly in preschool and school settings to implement required field activities. Candidate field work will generate

artifacts to document performance of required competencies.

EDCI 3320 Engaging Young Adolescents in Middle School Science & Social Studies 2cr.
Prerequisites: EDCI 3310 (Developmentally Responsive Education for Young Adolescents) and concurrent enrollment in EDCI 3321 (1cr.), Field 8. The course introduces participants to perspectives on teaching and learning grounded in standards based curriculum and multiple instructional and assessment strategies. General principles are applied to the specifics of teaching and learning of middle school science and social studies as a part of an integrated and interdisciplinary middle school teaching approach. There is a focus on using the local community as a resource for conducting cultural, historical, and environmental inquiries.

EDCI 3321 Field Experience: for EDCI 3320 2cr.
Prerequisite: Concurrent enrollment in EDCI 3320. This is a required two-credit-hour Field Experience that supports candidates in applying the content of EDCI 3320 within the classroom. Candidates must spend four hours weekly in school settings to implement required field activities. Candidate field work will generate artifacts to document performance of required competencies.

EDCI 3330 Engaging Adolescents in Middle School Mathematics 2cr.
Prerequisites: EDCI 3310 (3cr.) and concurrent enrollment in EDCI 3331, the two-credit-hour Field Experience. Teachers develop competence in middle grade curriculum and instructional practice with a content focus on mathematics. General principles of standards-based curriculum, diverse instructional strategies are applied to the specific techniques of teaching and learning of middle school mathematics as a part of an integrated and interdisciplinary middle school teaching approach with a focus on using real life examples.

EDCI 3331 Field Experience: for EDCI 3330 2cr.
Prerequisite: Concurrent enrollment in EDCI 3330. This is a required two-credit-hour Field Experience that supports candidates in applying the content of EDCI 3330 within the classroom. Candidates must spend four hours weekly in school settings to implement required field activities. Candidate field work will generate artifacts to document performance of required competencies.

EDCI 3340 Methods for Developing Algebraic Geometric Thinking 2cr.
Prerequisites: Acceptance into Tier III and concurrent enrollment in EDCI 3341, the one-hour field experience. The course will focus on the teaching of algebra and geometry and their connections to other content areas of the elementary mathematics curriculum.

EDCI 3341 Field Experience: for EDCI 3340 1cr.
Prerequisite: Concurrent enrollment in EDCI 3340. This is a required one-credit-hour Field Experience that supports candidates in applying the content of EDCI 3340 within the classroom. Candidates must spend two hours weekly in preschool and school settings to implement required field activities. Candidate field work will generate artifacts to document performance of required competencies.

EDCI 3382 Materials and Methods of Teaching Vocal Music in the Elementary Classroom 3cr.
(EDCI 3382 and MUS 3382 are cross-listed.) Prerequisites: Acceptance to Tier III and consent of department. Consideration of methods and material in teaching vocal music in grades Pre-K through 6. Appropriate field experiences may be required.

EDCI 3383 Materials and Methods of Teaching Instrumental Music in Elementary and Secondary Schools 3cr.
(EDCI 3383 and MUS 3383 are cross-listed.) Prerequisites: Acceptance to Tier III and consent of department. Consideration of methods and materials in teaching instrumental music. Appropriate field experiences may be required.

EDCI 3384 Materials and Methods of Teaching Vocal Music in Secondary Schools 3cr.
(EDCI 3384 and MUS 3384 are cross-listed.) Prerequisites: Acceptance to Tier III and consent of department. Considerations of methods and materials in teaching vocal music in grades 7-12. Appropriate field experiences may be required.

EDCI 3400 Foundations of Literacy 3cr.
Prerequisites: Acceptance into Tier II. This course provides an overview of theories of literacy development and introduces teacher candidates to varied approaches to literacy instruction with an emphasis on strategies drawn from empirical research regarding literacy learning and teaching.

EDCI 3410 Instruction for Early Literacy Development 2cr.
Prerequisites: Acceptance into Tier III, EDCI 3400, and concurrent enrollment in EDCI 3411, the companion field experience course. This course provides an overview of theories of literacy development and introduces teacher candidates to varied approaches to literacy instruction with an emphasis on strategies drawn from empirical research regarding literacy learning and teaching.

EDCI 3411 Field Experience: for EDCI 3410 1cr.
Prerequisite: Concurrent enrollment in EDCI 3410. This is a required one-credit-hour Field Experience that supports candidates in applying the content of EDCI 3410 within the classroom. Candidates must spend two hours weekly in preschool and school settings to implement required field activities. Candidate field work will generate artifacts to document performance of required competencies.

EDCI 3425 Literacy Instruction for Content Learning 2cr.
Prerequisite: EDCI 3410, acceptance into Tier III of the program, and concurrent enrollment in EDCI 3426. An introduction to literacy instruction for children in grades 4 - 8. Topics addressed include principles of literacy development in upper elementary grades, reading and writing in content areas, assessment of literacy development, materials and methods appropriate for literacy instruction in the middle grades, and planning and organizing for instruction in 4 - 8 classrooms.

EDCI 3426 Field Experience: for EDCI 3425 1cr.
Prerequisite: Concurrent enrollment in EDCI 3425. This is a required one-credit-hour Field Experience that supports candidates in applying the content of EDCI 3425 within the classroom. Candidates must spend two hours weekly in preschool and school settings to implement required field activities. Candidate field work will generate artifacts to document performance of required competencies.

EDCI 3440 Practicum in Corrective Reading 3cr.
Prerequisite: EDCI 3425 and acceptance into Tier III of the program. This course familiarizes teacher candidates with techniques and materials used to identify those children in the classroom who are performing below their potential in reading. It provides teacher candidates with the experience of developing appropriate instruction for these students. Field experience is required during the course.

EDCI 3500 Observation & Assessment in Early Childhood Classrooms 3cr.
Prerequisite: Acceptance into Tier II. The course is designed to teach strategies for observing, documenting, assessing, and reporting the development of young children, and further, to utilize this data to plan curricula and strategies which will foster the development of all children in inclusive nursery and kindergarten classrooms.

EDCI 3510 Understanding & Facilitating Play Among Nurs & KG Children 2cr.

Prerequisite: Acceptance into Tier III and concurrent enrollment in EDCI 3511, the field experience component. This course teaches early childhood education majors about the importance of play in the development and learning of young children, how to facilitate play to an optimal level, and how to advocate for young children's right to rich opportunities to play at home, in school, and throughout the community.

EDCI 3511 Field Experience: for EDCI 3510 1cr.

Prerequisite: Concurrent enrollment in EDCI 3510. This is a required one-credit-hour Field Experience that supports candidates in applying the content of EDCI 3510 within the classroom. Candidates must spend two hours weekly in preschool and school settings to implement required field activities. Candidates field work will generate artifacts to document performance of required competencies.

EDCI 3520 Managing the Nursery or Kindergarten Classroom 2cr.

Prerequisite: Acceptance into Tier III, EDCI 3500, and concurrent enrollment in EDCI 3521 (the one-hour field experience). This course surveys models and goals of Early Childhood Education (ECE) programs and teaches early childhood majors basic information necessary to create and maintain psychologically and physically safe environments which foster the development and learning among groups of nursery and kindergarten children.

EDCI 3521 Field Experience: for EDCI 3520 1cr.

Prerequisite: Concurrent enrollment in EDCI 3520. This is a required one-credit-hour Field Experience that supports candidates in applying the content of EDCI 3520 within the classroom. Candidates must spend two hours weekly in preschool and school settings to implement required field activities. Candidate field work will generate artifacts to document performance of required competencies.

EDCI 3530 Curricula Development for Nursery & Kindergarten 2cr.

Prerequisite: Acceptance into Tier III, EDCI 3500, EDCI 3510, and concurrent enrollment in EDCI 3531 (Field Experience). This course teaches early childhood education majors strategies related to creating environments that foster optimal development and learning among young children and strategies related to creating an integrated and seamless curriculum that honors each child's development and abilities.

EDCI 3531 Field Experience: for EDCI 3530 1cr.

Prerequisite: Concurrent enrollment in EDCI 3530. This is a required one-credit-hour Field Experience that supports candidates in applying the content of EDCI 3530 within the classroom. Candidates must spend two hours weekly in preschool and school settings to implement required field activities. Candidate field work will generate artifacts to document performance of required competencies.

EDCI 3540 The Dev of Logico-Mathematical Knowledge in Young Children 2cr.

Prerequisite: Acceptance into Tier III and enrollment in EDCI 3541, the accompanying Field Experience (1 hour credit). This course teaches early childhood and elementary education majors theories and principles related to the development of early math literacy skills in young children, methods and materials for promoting early math literacy, and techniques for integrating early math literacy concepts into themes, projects, play, and other learning experiences.

EDCI 3541 Field Experience: for EDCI 3540 1cr.

Prerequisite: Concurrent enrollment in EDCI 3540. This is a required one-credit-hour Field Experience that supports candidates in applying the content of EDCI 3540 within the classroom. Candidates must spend two hours weekly in preschool and school settings to implement required field activities. Candidate field work will generate artifacts to document performance of required competencies.

EDCI 3910 Student Teaching in the Elementary School 12cr.

Prerequisites: requirements listed under "Requirements for Student Teaching." This course is designed to provide the student with an opportunity to acquire and apply competencies essential for effective teaching and to create an awareness of the total school program. The student will be assigned to a school on a day-to-day basis for one semester. The student teacher will participate in classroom teaching and observation, planning and evaluation conferences, school and community activities, and other school-related experiences. A seminar will be held in conjunction with this experience. The seminar will address the topics of classroom management and interpersonal skills.

EDCI 3915 Student Teaching in the Elementary and Special Education Classroom 12cr.

Prerequisites: requirements listed under "Requirements for Student Teaching." This course is designed to provide the student with an opportunity to acquire and apply competencies essential for effective teaching and to create an awareness of the total school program including mainstreaming practices and multicultural differences in students. The student will be assigned on an all-day basis to 1) a regular elementary classroom for half of the semester and 2) a special education classroom the other half of the semester. The student teacher will participate in classroom teaching and observation, planning, and evaluation conferences, school and community activities, and other school-related experiences. A seminar will be held in conjunction with this experience. The seminar will address the topics of classroom management and interpersonal skills.

EDCI 3920 Student Teaching in the Secondary School 12cr.

Prerequisites: requirements listed under "Requirements for Student Teaching." This course is designed to provide the student with an opportunity to acquire and apply competencies essential for effective teaching and to create an awareness of the total school program. The student will be assigned to a school on a full-day basis for one semester. The student teacher will participate in classroom teaching and observation, planning and evaluation conferences, school and community activities, and other school-related experiences. Seminars will be held in conjunction with this experience. Seminars will address the topics of classroom management and interpersonal skills of teaching.

EDCI 3930 Student Teaching in the Elementary and Secondary Schools 12cr.

Prerequisites: Requirements listed under "Requirements for Student Teaching." The student will be assigned to a school on a full-day basis for one semester. This course is designed to provide the student with an opportunity to acquire and apply competencies essential for effective teaching and to create an awareness of the total school program. This course is open only to students with majors in either music education or physical education. The student teacher will participate in classroom teaching and observation, planning and evaluation conferences, school and community activities, and other school-related experiences. Seminars will be held in conjunction with this experience. Seminars will address the topics of classroom management and interpersonal skills of teaching.

EDCI 3980 Independent Study 1cr.

Prerequisite: a minimum of 92 credit hours and consent of the department and major professor. Investigation of pertinent problems under the direction of a Curriculum and Instruction faculty

member. More than three credit hours may not be applied to any degree program. Section number will correspond with credit to be earned.

EDCI 3999 Honors Thesis 3cr.
Prerequisites: consent of department and admission to Honors in Education program. Directed research with relevance to teacher education culminating in a written thesis to meet the requirements for graduation with Honors in Education and if appropriate University Honors. May be repeated for a total of six credits.

EDCI 4140 Studies in the Teaching of Elementary School Mathematics 3cr.
Prerequisites: Acceptance into Level 2 of the Non-degree (Post-Baccalaureate) Teacher Certification Program. Investigation of current programs, teaching strategies, and instructional materials which relate to elementary school mathematics. Field-based experiences may be included.

EDCI 4150 Studies in the Teaching of Elementary School Science 2cr.
Prerequisite: Acceptance into Level 2 of the Non-degree (Post-Baccalaureate) Teacher Certification Program. Investigation of current programs and instructional strategies that contribute to effective teaching of science in the elementary school.

EDCI 4160 Foundations of Elementary Social Studies Education 2cr.
Prerequisite: Acceptance into Level 2 of the Non-degree (Post-Baccalaureate) Teacher Certification Program. This course will examine the purpose of social studies education and investigate current scholarship on the best practice methods and materials for elementary social studies education. Students will examine the controversial issues inherent in the study of social studies and develop effective strategies for dealing with these in ways consistent with the aims of social studies education.

EDCI 4220 Materials and Methods in Secondary School English 3cr.
Prerequisites: Acceptance into Level 2 of the Non-degree (Post-Baccalaureate) Teacher Certification Program. This course is designed to develop competencies in planning, conducting, and evaluating instruction in English. Appropriate field experiences may be required.

EDCI 4250 Materials and Methods in Secondary School Science 2cr.
Prerequisites: Acceptance into Level 2 of the Non-degree (Post-Baccalaureate) Teacher Certification Program. This course entails the study of current methods of teaching science in secondary school programs, with an emphasis on hands-on, field-based inquiry. Specific applications to life sciences and physical sciences in the high school curriculum will be addressed.

EDCI 4255 Life Sciences in the Middle and Secondary Schools 3cr.
Prerequisite: Acceptance into Level 2 of the Non-degree (Post-Baccalaureate) Teacher Certification program. Studies of programs and instructional strategies in the life sciences for the middle and secondary school.

EDCI 4260 Foundations of Secondary Social Studies 2cr.
Prerequisite: Acceptance into Level 2 of the Non-degree (Post-Baccalaureate) Teacher Certification program. This course will provide future social studies teachers the opportunity to examine the role of social studies in the modern secondary curriculum. This examination will include the nature of the disciplines which comprise social studies and their connectedness. Students will also investigate the challenges inherent in teaching social studies and prepare strategies for confronting these challenges. This class will also look at current scholarship in the social studies with an emphasis on best practice, methods and materials.

EDCI 4310 Developmentally Responsive Curriculum & Instruction for Young Adolescents 2cr.
Prerequisite: Acceptance into Level 2 of the Non-degree (Post-Baccalaureate) Teacher Certification Program. The course will introduce the student to the developmental characteristics of young adolescents, social factors influencing their development, components of exemplary middle schools, and developmentally responsive curriculum and instructional strategies.

EDCI 4340 Algebraic and Geometric Thinking 2cr.
Prerequisites: Acceptance into Level 2 of the Non-degree (Post-Baccalaureate) Teacher Certification Program. The course will focus on the teaching of algebra and geometry and their connections to other content areas of the elementary mathematics curriculum. Fieldwork will be required as part of the course.

EDCI 4400 Foundations of Literacy Development 2cr.
Prerequisites: Acceptance into Non-degree Teacher Certification Program. This course examines theories of literacy development and provides an introduction to various current approaches to literacy instruction, with an emphasis on strategies drawn from empirical research regarding literacy learning and teaching from birth through adulthood.

EDCI 4410 Early Literacy Development 2cr.
Prerequisites: Acceptance into Level 2 of the Non-degree (Post-Baccalaureate) Teacher Certification Program. This course provides an examination of early literacy development and instruction. It introduces teacher candidates to varied approaches to early literacy instruction with an emphasis on strategies drawn from empirical research regarding literacy learning and teaching.

EDCI 4421 Linguistic Applications in Reading-Language Arts 3cr.
Prerequisite: EDCI 3400 or 4400 and EDCI 3410/3411 or 4410 or consent of department. Designed to provide teachers of the English language arts with a basic understanding of linguistics in order to help them improve their capacity for making decisions about instruction.

EDCI 4423 Reading-Language Arts in a Multicultural Society 3cr.
Prerequisite: EDCI 3400 or 4400 or consent of department. Designed to provide the student with an understanding of language differences in a multicultural society and with a variety of programs designed for teaching students having language and cultural differences.

EDCI 4425 Materials and Methods for Teaching English as a Second Language 3cr.
Intensive study of linguistic developments in second language acquisition and practices in teaching English to non-native speakers of the language.

EDCI 4430 Information Literacy Instruction for Content Learning 2cr.
Prerequisites: Acceptance into Level 2 of the Non-degree Teacher Certification Program and EDCI 4410 or consent of the Department. An examination of literacy instruction for children in grades PK-8 in self-contained and departmentalized classroom settings with applications in field settings. Topics include principles of literacy development in upper elementary grades, reading and writing in content areas, assessment of literacy development, materials and methods appropriate for literacy instruction in the middle grades, and planning and organizing for instruction in PK-8 classrooms.

EDCI 4432 Teaching Reading in Content Areas 3cr.
Offered each semester and summer session. Prerequisite: Acceptance into the Teacher Education Program or consent of department. A study of the skills of reading and of methods, materials, and practices which contribute to the effective teaching of reading the subject matter of content areas.

EDCI 4500 Foundations of Child Development 3cr.
Prerequisite: Acceptance into the Non-degree Teacher Certification Program. A study of child development from infancy to seven years of age for teachers in the preschool, kindergarten and primary grades.

EDCI 4510 Curriculum Design for Early Childhood 2cr.
Prerequisite: Acceptance into Level 2 of the Non-degree (Post-Baccalaureate) Teacher Certification Program. A study of principles and practices underlying curriculum design in early childhood education.

EDCI 4515 The Use of Play as a Learning Strategy 2cr.
Prerequisite: Acceptance into the Non-degree (Post-Baccalaureate) Teacher Certification Program and EDCI 4500. This course supports the development of the understanding of the crucial role of play in the development and learning of young children.

EDCI 4525 Observation and Assessment in Early Childhood Classrooms 2cr.
Prerequisite: Acceptance into the Non-Degree (Post-Baccalaureate) Teacher Certification Program and EDCI 4500. The course is designed to teach strategies for observing, documenting, assessing, and reporting the development of young children and using data to plan curricula and strategies that foster the development of all children in nursery, kindergarten, and primary classrooms.

EDCI 4540 Managing the Early Childhood Classroom 2cr.
Prerequisite: Acceptance into Level 2 of the Non-Degree (Post-Baccalaureate) Teacher Certification Program. This course surveys models and goals of ECE programs and teaches early childhood educators basic information necessary to create and maintain psychologically and physically safe environments that foster development and learning among groups of nursery and kindergarten children.

EDCI 4545 Development of Logico-Mathematical Knowledge 2cr.
Prerequisite: Acceptance into Level 2 of the Non-degree (Post-Baccalaureate) Teacher Certification Program. This course teaches early childhood and elementary education majors theories and principles related to the development of early math literacy skills in young children, methods and materials for promoting early math literacy, and techniques for integrating early math literacy concepts into themes, projects, play and other learning experiences.

EDCI 4595 Practicum in Early Childhood Education 3cr.
Prerequisite: EDCI 4500, EDCI 4510 and EDCI 4540. Supervised experiences in a variety of nursery school and kindergarten situations.

EDCI 4605 Trends and Issues in Curriculum and Instruction 3cr.
A systematic analysis and overview of the major trends and issues in curriculum and instruction.

EDCI 4620 Curriculum and Instruction for Multicultural Education 3cr.
Analysis of principles of multicultural education as applied to curriculum and instruction. Designed to increase students' awareness and knowledge of cultural integrity and cultural diversity and to familiarize students with school programs, strategies, and materials for developing and implementing a multicultural curriculum.

EDCI 4660 Global Education 3cr.
Prerequisite: consent of department. Introduction to global education with an emphasis on both the development of a global perspective and the development of instructional ideas and strategies designed to integrate global education into the school curriculum.

EDCI 4731 Introduction to Middle School 5cr
Prerequisite: Concurrent with EDUC 4700. This course, which is part of the Teach Greater New Orleans (TGNO) Practitioner Teacher Program, focuses on the practical dimensions of teaching middle school students and presents teaching as a problem-posing, inquiry-based continuous exercise. Offered for graduate credit only.

EDCI 4732 Practitioner Seminar: Effective Middle School Practices 3cr.
Prerequisite: EDCI 4731; concurrent with EDUC 4701. This course, which is part of the Teach Greater New Orleans (TGNO) Practitioner Teacher Program, builds upon the main themes addressed in the Summer Middle School course and focuses on the practical dimensions of teaching. Offered for graduate credit only.

EDCI 4733 Curriculum and Instruction in Middle School 3cr.
Prerequisite: EDCI 4732; concurrent with EDUC 4702. This course, which is part of the Teach Greater New Orleans (TGNO) Practitioner Teacher Program, builds upon the main themes addressed in the Summer and Fall Middle School courses and also focuses on assessment. Offered for graduate credit only.

EDCI 4740 Utilization of Educational Media 3cr.
Prerequisite: Graduate standing or consent of department. Reviews structure and utilization of media and instructional systems in education and applies the basic concepts of communication to problems in teaching and learning.

EDCI 4741 Teaching of Secondary School Mathematics 5cr.
Prerequisites: Concurrent enrollment in EDUC 4700. Methods of teaching for secondary school mathematics students (grades 6-12). This is the Summer course in the Teach Greater New Orleans (TGNO) Practitioner Teacher Program. Offered for graduate credit only.

EDCI 4742 Introduction to Teaching Secondary School Mathematics 3cr.
Prerequisite: EDCI 4741; concurrent with EDUC 4701. This course, which is part of the Teach Greater New Orleans (TGNO) Practitioner Teacher Program, builds upon math concepts from EDCI 4741 and introduces Data Analysis and Probability, Trigonometry, and other Advanced Mathematics topics. Offered for graduate credit only.

EDCI 4743 Integrating Technology in Secondary School Mathematics 3cr.
Prerequisite: EDCI 4742; concurrent with EDUC 4702. This course, which is part of the Teach Greater New Orleans (TGNO) Practitioner Teacher Program, builds upon advanced math introduced in EDCI 4742 and focuses on the integration of technology into the teaching of secondary school mathematics. Offered for graduate credit only.

EDCI 4744 Introduction to the Computer in the Content Areas 3cr.
Prerequisite: consent of department. Designed to prepare educators for the use and application of microcomputers in the content areas, especially in mathematics, language arts and English, social studies, and science. Evaluating and adapting hardware and software for classroom use. Introductory study of the BASIC and Logo languages.

EDCI 4750 Curriculum and Instruction in Upper Elementary Education 3cr.
A study of the upper elementary school including curriculum, eval-

uation, innovative instructional approaches, organizational patterns, and special problems of the elementary school.

EDCI 4751 Secondary Science Teaching 5cr.
Prerequisites: Concurrent enrollment in EDUC 4700. Effective science teaching methods in secondary education. This is the Summer course in the Teach Greater New Orleans (TGNO) Practitioner Teacher Program. Offered for graduate credit only.

EDCI 4752 Secondary Science Teaching in an Urban Setting 3cr.
Prerequisite: EDCI 4751; concurrent with EDUC 4701. This course, which is part of the Teach Greater New Orleans (TGNO) Practitioner Teacher Program, builds on the main themes addressed in EDCI 4751 and begins to focus on teaching science in the context of the urban secondary school. Curriculum, instruction, and classroom assessment will be emphasized. Offered for graduate credit only.

EDCI 4753 Preparing Students to Succeed on Science Assessments 3cr.
Prerequisite: EDCI 4752; concurrent with EDUC 4702. This course, which is part of the Teach Greater New Orleans (TGNO) Practitioner Teacher Program, builds upon the main themes addressed in the summer and fall Secondary Science Teaching course with a focus on the context of the urban secondary school. Conceptual ideas from the summer course will be revisited in light of the participants' actual teaching situations. Portfolio development, praxis preparation, the components of effective teaching, and LATEP will be emphasized. Offered for graduate credit only.

EDCI 4850 Analysis of Teacher Questioning Behaviors for Cognitive Growth 3cr.
An intensive study of questioning theory, research, and practice in order to develop and refine teachers' questioning behaviors related to student cognitive development.

EDCI 4910 Internship: Alternative Post-Baccalaureate Certification for Lower Elementary Teaching 6cr.
Open only to graduate students admitted to Alternative Post-Baccalaureate Certification for Lower Elementary Education. Prerequisites: completion of a minimum of 12 semester hours of professional education courses in the Teacher Preparation Program at UNO and all appropriate methods courses prior to enrollment in this internship and consent of department. The participant must hold a teaching position in the area of desired certification. The intern will participate in lower elementary classroom teaching (grades one through four), observation, planning, and evaluation conferences, school and community activities, and other related experiences. Enrollment in the internship for two consecutive semesters (12 credits) is required. Not for graduate credit.

EDCI 4990 Practicum in Teaching 3cr.
Prerequisite: open only to certified teachers who are changing level of certification and who have a minimum of three years of teaching experience. The students in this course must meet student teaching requirements, at the selected level, as stipulated in the UNO General Catalog under "Requirements for Student Teaching." Classroom teaching, observation, planning, and evaluation conferences, school and community activities, and other school-related experiences to create an awareness of the total school program at the selected level. The time spent in the practicum will be computed on the basis of a minimum of eight hours per week per semester.

EDCI 4991 Special Topics in Curriculum and Instruction 1cr.
Prerequisite: consent of department. The content of the courses will be varied from semester to semester. These courses may be repeated but total credit may not exceed six semester hours in any degree program. Section number will correspond with credit to be earned.

EDCI 4992 Special Topics in Curriculum and Instruction 1cr.
Prerequisite: consent of department. The content of the courses will be varied from semester to semester. These courses may be repeated but total credit may not exceed six semester hours in any degree program. Section number will correspond with credit to be earned.

EDCI 4993 Special Topics in Curriculum and Instruction 1cr.
Prerequisite: consent of department. The content of the courses will be varied from semester to semester. These courses may be repeated but total credit may not exceed six semester hours in any degree program. Section number will correspond with credit to be earned.

EDCI 4995 Internship in Secondary Teaching 6cr.
Prerequisite: open only to students admitted to the Alternate Post-Baccalaureate Secondary Teacher Certification Program who have completed a minimum of 12 hours of professional education courses and all appropriate methods courses prior to enrollment in this internship and who presently hold a teaching position in their area of desired certification. The intern will participate in classroom teaching, observation, planning and evaluation conferences, school and community activities, and other school-related experiences. Enrollment in two consecutive semesters (12cr.) is required.

EDCI 6020 Writing Institute 3cr.
(EDCI 6020 and ENGL 6151 are cross-listed) Offered during the summer session only. An invitational workshop designed for teachers interested in improving writing, theirs and their students. An intensive exploration of the research and practice in the field. Section number will correspond with credit to be earned.

EDCI 6060 Advanced Applied Behavior Analysis 3cr.
Prerequisite: EDSP 4060 or consent of the department. Study of applied behavior analysis and single subject research designs to implement educational and habilitative programs in applied settings. Two hours of lecture and two hours of laboratory.

EDCI 6220 Studies in the Teaching of English in Secondary Schools 3cr.
Designed to assist teachers in developing instructional strategies related to the secondary English program.

EDCI 6240 Studies in the Teaching of Mathematics in Secondary Schools 3cr.
Designed to assist teachers in developing instructional strategies related to the secondary school mathematics program.

EDCI 6250 Studies in the Teaching of Science in Secondary Schools 3cr.
An examination of recent trends, methods, issues, and research in middle/secondary school science instruction.

EDCI 6260 Studies in the Teaching of Social Studies in Secondary Schools 3cr.
An examination of recent trends, methods, problems, and literature in social studies instruction.

EDCI 6310 Foundations of Adult Education 3cr.
(EDCI 6310 and EDAD 6310 are cross-listed) A study of the historical and philosophical foundations of adult education.

EDCI 6320 Adult Learning and Development 3cr.
(EDCI 6320 and EDAD 6320 are cross-listed) An inquiry into adult learning theories, developmental stages, and the forces which motivate adults to participate in educational programs.

EDCI 6370 Methods of Adult Education 3cr.
(EDCI 6370 and EDAD 6370 are cross-listed) A study of the variety of techniques and strategies to assess needs, present information, facilitate learning, organize the learning environment, and evaluate the performance of adult learners.

EDCI 6390 Practicum in Adult Learning 3cr.
(EDCI 6390 and EDAD 6390 are cross-listed) Prerequisites: EDCI/EDAD 6310, 6320 and completion of or concurrent enrollment in EDCI/EDAD6370 or consent of the department. Application of various learning theories in actual teaching/learning situations.

EDCI 6434 Developmental Reading 3cr.
A comprehensive treatment of methods, materials, principles, and practices of devising an effective developmental reading program, with emphasis on studies, research, and experimentation.

EDCI 6435 Assessment Alternatives in Literacy 3cr.
Prerequisite:EDCI 6434 or consent of department. Focuses on techniques for assessing students' reading and writing behaviors within the context of naturally-occurring classroom activities. (Note: This course cannot be used to substitute for required special education coursework leading to educational diagnostician certifications in Louisiana.)

EDCI 6436 Diagnostic and Remedial Reading 3cr.
Prerequisite:EDCI 6434. Study of diagnostic and remedial techniques in reading. Practicum.

EDCI 6438 Clinical Diagnosis of Reading Problems 3cr.
Prerequisites: EDCI 6434 and 6436 or consent of department. A course designed for the reading specialist to develop the skills of diagnosing severe reading problems with emphasis on individual diagnostic testing.

EDCI 6460 Psychology of Reading 3cr.
Prerequisite:EDCI 6434 or consent of the department. Explorations in the psychological processes involved in reading and learning to read.

EDCI 6490 Seminar in Reading-Language Arts 3cr.
Prerequisite: EDCI 6436 or consent of department. Explorations in recent trends and problems in specific areas of research and practice in reading and language arts. The topic will vary with the instructor. May be taken for graduate credit more than once.

EDCI 6492 Seminar: Literacy Studies and Language Education 3cr.
Prerequisites: successful completion of the doctoral qualifying examination EDFR 6700, EDFR 6710, EDFR 6715 and one of the following: EDCI 6436, EDCI 6460 or EDCI 6490. Critical analysis of research on selected topics in literacy studies and language education. Topics will vary. May be taken twice for credit. Required of all doctoral students in Literacy Studies and Language Education.

EDCI 6493 Practicum in Diagnostic and Remedial Reading 3cr.
Prerequisite: EDCI 6436. A course designed for the practice of diagnosing and remediating reading disability.

EDCI 6495 Practicum in Clinical Reading 3cr.
Summer session only. Prerequisites:EDCI 6434, 6436 and 6438 or consent of department. A course designed for the reading specialist to develop the skills in treating severe reading problems with emphasis on individual and small groups.

EDCI 6510 Advanced Curriculum Design in Early Childhood Education 3cr.
Prerequisite: EDCI 4595 or consent of department. An analysis and application of techniques, planning and evaluative procedures in developing curricula for the preschool and kindergarten.

EDCI 6520 Contemporary Approaches in Early Childhood Education 3cr.
Prerequisite: EDCI 4595 or consent of department. A critical analysis of the conceptual framework and implementation of contemporary programs in Early Childhood Education and their influences in preschool and kindergarten education.

EDCI 6525 Community, Parent, and School Involvement in the Education of the Young Child 3cr.
Prerequisite: EDCI 4595 or consent of department. The planning, selection, and utilization of human resources, activities, materials, and facilities relating to the education of the young child.

EDCI 6530 Survey of Measurement in Early Childhood Education 3cr.
Prerequisites: EDCI 4595 and EDFR 6700 or consent of department. A survey of instruments which measure the young child's growth in the affective, cognitive, and psychomotor domains.

EDCI 6540 Study of Programs in Early Childhood Education 3cr.
Prerequisites: EDCI 6510 and 6520 or consent of department. This course will examine the evolution of the early childhood profession including historical events, people and trends form past to present. Students will explore the impact of current early childhood program such as state and federally supported preschools, parochial preschools, employer-supported child care, and the day care industry, through observation and extensive readings.

EDCI 6550 Effective Parenting and Understanding Child Behavior 3cr.
Analysis of the nature and process of parent-child interaction through the child-rearing years of infancy and childhood.

EDCI 6560 The Role of Play in the Development and Learning of Young Children 3cr.
Prerequisites: EDCI 4500 or consent of the department. The study of the role of play in the development and learning of young children. Subtopics include the meaning of play in diverse cultures, the research basis for including play in the early childhood curriculum, techniques for the facilitation of play activities in early childhood programs, and strategies helpful in the advocacy for play among colleagues, administrators, and curriculum designers.

EDCI 6590 Seminar: Current Issues and Trends in Early Childhood Education 3cr.
Prerequisite:EDCI 4500 or consent of the department. Explorations of recent trends and issues in specific areas of research and practice in early childhood education. The topic will vary with the instructor. May be taken for graduate credit more than once.

EDCI 6600 Foundations of Curriculum Development 3cr.
A critical analysis of the fundamental principles and practices underlying curriculum development.

EDCI 6610 Elementary School Curriculum 3cr.
A study of the critical issues in the elementary school curriculum and of desirable instructional practices in the major areas of instruction.

EDCI 6620 Secondary School Curriculum 3cr.
The study and critical evaluation of various designs of the curriculum as they apply to general and specialized education, including content and subject matter areas. There is particular emphasis on course development.

EDCI 6658 College Curriculum 3cr.
(EDCI 6658 and EDAD 6650 are cross listed) This course provides an over-view of the issues, principles, and practices associated with college curriculum development. Topics include the diversity of

philosophical foundations for college curricula; perspectives and models of the college curriculum in higher education. The interaction of theory and practice is an important theme of the course.

EDCI 6660 The Nature and Development of Social Studies Education 3cr.
A survey of the development of social studies education and an investigation into the purpose of social studies as it relates to citizenship education in American schools.

EDCI 6670 Evaluation of Curriculum Programs 3cr.
Prerequisites: EDCI 6600 or 6610 or 6620 or consent of department A study of methods of gathering information and making decisions with respect to the development and modification of curriculum programs.

EDCI 6675 Advanced Educational Program Evaluation 3cr.
(EDFR 6675 and EDCI 6675 are cross-listed) Prerequisites EDCI 6670 and EDFR 6710 and 6711 or consent of department. This course is designed to provide students with the research and evaluation skills required to implement various program evaluation models. It is also intended to provide the skills necessary for effectively using the standards of the National Joint Committee on Standards for Program Evaluation as required by state certification guidelines.

EDCI 6710 Nonfiction Across the Curriculum 3cr.
(EDCI 6710 and EDLS 6710 are cross-listed) A critical examination of nonfiction books used in schools. Focus is on standards for evaluation and curricular uses for informational and biographical works.

EDCI 6720 Teaching Information Literacy 3cr.
(EDLS 6650 and EDCI 6720 are cross-listed) Prerequisite: EDFR 1000, CSCI 1000, or equivalent course; or permission of the department. Investigation of teaching strategies and instructional materials to implement the Louisiana Content Standards for information literacy in elementary and secondary schools, including the principles of critical thinking and problem-based learning. Designed to provide teachers of language arts, social studies, and sciences, and library media specialists with an understanding of the role and uses of information in the contemporary world.

EDCI 6744 Intermediate Programming in BASIC for Curriculum Development 3cr.
Prerequisite: EDCI 4744 or EDFR 6750 or consent of department. Students will study intermediate programming techniques in Logo and Basic while developing courseware for classroom use. Additionally, they will learn to modify and, when necessary, expand existing software for improved educational applications.

EDCI 6750 Instructional Systems 3cr.
Prerequisite: consent of department. An examination of the systems approach in the analysis and development of instructional procedures.

EDCI 6754 Curriculum Development for the Microprocessor Computer 3cr.
Prerequisites: EDCI 6600, EDFR 6750 or consent of department. This course will relate curricular design processes to the development of software. Knowledge about learning theories, motivation, instructional methodologies, curricular designs, etc. will be applied in the development of instructional computing materials. Students will gain an understanding of how software can be made into courseware and into a part of a total curriculum.

EDCI 6755 Content Applications of Instructional Strategies 3cr.
Prerequisite: EDCI 4850 or consent of department. Overview of instructional strategies as pertains to content areas and research on the effective teaching of content. Emphasis on lesson design implementation and assessment of content instruction and classroom management practices.

EDCI 6758 College Teaching 3cr.
(EDCI 6758 AND EDAD 6640 are cross listed) This course provides an overview of the issues principles and practices associated with effective college teaching. Topics examined include learning and diversity; teaching models and strategies teacher and student behaviors and learning outcomes; and instructional improvement strategies. The interaction of theory and practice is an important theme of the course.

EDCI 6759 College Student Learning 3cr.
(EDCI 6759 and EDAD 6645 are cross-listed) This course examines recent advances in research and theory related to behavioral, humanistic, information-processing, developmental, motivational, social, cognitive, epistemological, developmental, multicultural, constructivist, and other contemporary perspectives on how college students learn. Research and theory in these areas will be studied in ways that emphasize concrete implications for teaching practices, curriculum development, and student services in the design of effective learning environments for students in traditional two-year and four-year classrooms as well as in other nontraditional postsecondary contexts.

EDCI 6793 Graduate Special Topics in Curriculum and Instruction 3cr.
The content of the course will be varied from semester to semester. This course may be repeated but total credit may not exceed six semester hours in any degree program.

EDCI 6860 Teacher Development and Professional Leadership 3cr.
Prerequisite: EDCI 6755 or consent of the department. Survey of the literature on teacher development and teacher leadership. Special emphasis will be placed on the development of professional skills and collaborative processes necessary for mentoring teachers in various stages of teacher development. Such skills and processes help implement curriculum and acquire expertise in teaching content.

EDCI 6900 Introductory Doctoral Readings in Curriculum and Instruction 3cr.
Fall Semester. Prerequisite: Screening into the doctoral program. Readings on major theories and ideologies of curriculum and instruction. This course must be taken before the Qualifying Examination. Required of all doctoral students in Curriculum and Instruction.

EDCI 6902 Topical Doctoral Readings in Curriculum 3cr.
Prerequisite: Admission to the doctoral program; EDCI 6600; EDCI 6900; and EDCI 6610 or EDCI 6620 or EDCI 6310; or by consent of the department. Reading, lectures, and discussion concerning a current curriculum issue. Intensive study of relevant theoretical issues as well as broader spectrum of educational concerns. Required of all doctoral students in General Curriculum. Topics will vary with each offering.

EDCI 6904 Topical Doctoral Readings in Instruction and Teacher Development 3cr.
Prerequisite: Screening into the doctoral program; EDCI 6900; and EDCI 6755 or EDCI 6860; or consent of the department. Intensive work on one instructional theorist, theory or approach to teacher development. Topics will vary with each offering. Required of all doctoral students in Teacher Development.

EDCI 6905 Research Critique in Curriculum and Instruction 3cr.
Fall Semester. Prerequisite: Passage of the Doctoral Qualifying Examination; EDFR 6710, 6711 and 6715; or consent of the depart-

ment. Detailed analysis of criticism of recently published research studies in curriculum and instruction. Topics will vary with each offering. Required of all doctoral students in Curriculum and Instruction.

EDCI 6910 Directed Group Doctoral Study 3cr.
Prerequisite: Passage of the doctoral Qualifying Examination, completion of all research tools, courses, or consent of the department. Directed practice in developing research in curriculum and instruction. Topics will vary with each offering.

EDCI 6920 Doctoral Research Seminar in English Education 3cr.
Offered every other year. Prerequisite: Passage of the Doctoral Qualifying Examination or by consent of the department. An analysis and critique of current research in English Education, this course is designed to help doctoral students interested in English Education develop deep knowledge of educational research literature and theory in the areas of literature, language and composition teaching. Topics will vary with each offering.

EDCI 6940 Doctoral Seminar in Mathematics Education 3cr.
Offered every other year. Prerequisite: Passage of the Doctoral Qualifying Examination or consent of the department. Critical analysis and discussion of issues and research topics related to mathematics teaching and learning. Topics will vary with each offering.

EDCI 6950 Doctoral Seminar in Science Education 3cr.
Offered every other year. Prerequisite: Passage of the Doctoral Qualifying Examination; and one of EDCI 6600 6610 6620; or consent of the department. Critical analysis and discussion of issues and research topics related to science teaching and learning. Topics will vary with each offering.

EDCI 6970 Doctoral Seminar in Human Performance and Health Promotion 3cr.
(EDHP 6970 and EDCI 6970 are cross listed) Offered every other year. Prerequisite: Passage of the Doctoral Qualifying Examination; and one of EDCI 6600, EDCI 6610, or EDCI 6620; or by consent of the department. Critical analysis and discussion of issues and research topics related to Human Performance and Health Promotion. Topics will vary with each offering.

EDCI 6980 Independent Study in Curriculum and Instruction 1cr.
Prerequisite: advanced graduate standing with consent of department and major professor. Investigation of pertinent problems under the direction of a graduate faculty member. This course may be repeated but total credit may not exceed six semester hours. Section number will correspond with credit to be earned.

EDCI 6990 Doctoral Seminar in Curriculum and Instruction 3cr.
Offered every Fall. Prerequisite: completion of the Qualifying Examination in Curriculum and Instruction; EDFR 6710 EDFR 6715 and an advanced research tools course; and EDCI 6900, EDCI 6902, EDCI 6904 and EDCI 6905 or consent of the department. Discussion of critical issues in writing and conduction dissertation research in curriculum and instruction. Required of all doctoral students.

EDCI 6991 Practicum in Educational Evaluation 3cr.
(EDFR 6991and EDCI 6991 are cross listed). Prerequisite: EDCI 6675 EDFR 6675 or consent of department. This course is intended to provide students with the opportunity to practice in an actual school setting the program evaluation skills learned in previous courses. The practicum will be conducted under the supervision of a graduate faculty member who is an experienced evaluator.

EDCI 6992 Doctoral Research Seminar in Curriculum Theory 3cr.
Offered Spring. Prerequisite: Completion of the Qualifying Examination in Curriculum and Instruction; and EDCI 6900, EDCI 6902, and EDCI 6905; or consent of the department. Critical analysis of research affecting curriculum theory. Required of all doctoral students in General Curriculum and Literacy Studies and Language Education, optional for Teacher Development students.

EDCI 6994 Doctoral Research Seminar on Classroom Instruction 3cr.
Offered every Spring. Prerequisite: completion of the Doctoral Qualifying Examination; and EDCI 6900 6904 and 6905; or by consent of the department. Critical analysis of research studies on selected topics on instruction and teacher development. Topics will vary with instructor and seminar participants. Required of all doctoral students in Teacher Development optional for other Ph. D. students.

EDCI 6995 Practicum in Curriculum and Instruction 3cr.
Prerequisite: consent of department. Supervised functional application of educational theory in the student's major area of concentration.

EDCI 7000 Thesis Research 1cr.
To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

EDCI 7040 Examination or Thesis Only 0cr.
No credit. Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

EDCI 7050 Dissertation Research 1cr.
Prerequisite: approval by the candidate's graduate committee. To be repeated for credit until the dissertation is accepted. Section number will correspond with credit to be earned.

Developmental Mathematics

DEVM 106 From Arithmetic to Algebra 3cr.
Offered each semester. This is a developmental course for students who do not meet the minimum ACT requirement for MATH 1031. A brief study of the arithmetic of signed numbers and an introduction to polynomial algebra. Operations with real numbers and with polynomials; linear equations and inequalities and their graphs; systems of linear equations; special products and factoring; word problems. Developmental Mathematics 0106 will not be counted toward fulfillment of degree requirements.

DEVM 107 Pre-College Algebra 3cr.
Offered each semester. This is a developmental course for students who do not meet the minimum ACT requirement for MATH 1115 or MATH 1021. Selected topics include solving, graphing and writing linear equations, factoring, laws of exponents, simplifying rational and radical expressions and solving basic quadratic equations. DEVM 0107 will not be counted toward fulfillment of degree requirements.

Earth and Environmental Science

EES 1000 Dynamic Earth 3cr
Prerequisites: eligibility to enroll in ENGL 1157 or credit in English at the college level. A study of the structure and properties of materials composing the earth and processes which form and alter the crust including erosion igneous activity mountain building

glaciation earthquakes and oceans. Credit in EES 1000 and/or 1001 and EES 1008 will not be allowed.

EES 1001 Dynamic Earth Lab 1cr.
Prerequisite: credit or registration in EES 1000. Offered each semester. An introduction to working with geological materials. Distinction of rocks on the basis of physical properties and determination of how those properties can be used to predict behavior of various materials. Students are introduced to principles of mapping and geological laboratory and field observations. The course meets for three hours each week. Credit in both EES 1001 and EES 1008 will not be allowed.

EES 1002 Intro to Environ Sci & Policy 3cr.
Prerequisite: eligibility to enroll in ENGL 1157. A survey of environmental science and policy issues, including ecology, engineering, geology, geography, law, economics, philosophy, and sociology.

EES 1003 Intro to Env Sciences Lab 1cr.
One-Time Waiver.

EES 1004 Earth and Env Through Time 3cr.
Offered each semester. Prerequisite: EES 1000. Evolutionary history of the earth including physical changes and an introduction to the record of life through time.

EES 1005 Earth and Env Through Time Lab 1cr.
Offered each semester. Prerequisite: EES 1001; concurrent enrollment in EES 1004 is recommended. A survey of the rocks maps and fossils used to unravel the history of earth and life. The course meets for three hours each week.

EES 1006 Dinosaurs 3cr.
Prerequisite: eligibility for ENGL 1157. A lecture survey of dinosaurs and other extinct reptiles the theories about their life habits and evolution. Three hours of lecture a week.

EES 1007 Geology of National Parks 3cr.
A study of geological processes which have shaped the landscapes of selected American National Parks and Monuments.

EES 1008 Geology of New Orleans and LA 4cr.
Prerequisites: eligibility to enroll in ENGL 1157 or credit in English at the college level. A study of the influence of geological materials and processes on the founding development and future of New Orleans and environs. Lecture and laboratory are integrated. Credit for both EES 1000 and/or EES 1001 and EES 1008 will not be allowed. EES 1008 may be used along with EES 1004 and 1005 to fulfill the 8-cr hour science general degree requirement.

EES 1200 Earth Science of Nat Disasters 3cr.
One-Time Waiver

EES 2010 The Earth's Crust 2cr.
Prerequisite: EES 1000, 1001, concurrent enrollment in EES 2011. An introduction to rock forming minerals and survey of petrology emphasizing hand sample and field identification methods petrogenesis of rock series and tectonic associations. The class will meet twice a week for 2 hours each meeting combining lecture and laboratory work.

EES 2011 The Earth's Crust Laboratory 2cr.
Prerequisite: concurrent enrollment in EES 2010. A two week field course as an introduction to field techniques emphasizing rock identification and delineation of rock cr. rock identification skills and an introduction to basic mapping techniques in minimally deformed rocks. A field trip fee will be assessed to cover transportation materials insurance room and board. The course will be taught during the break between the end of the Spring and beginning of the Summer semesters.

EES 2050 Surficial Processes 3cr.
Prerequisites: EES 2010, MATH 1112. Study of earth surface processes involved in sediment deposition and landform development. Process mechanics and environmental response to climatic change and tectonic events are emphasized. Two hours of lecture and three hours of laboratory.

EES 2096 Special Topics 1cr.min/3cr.max
Prerequisite: consent of department. A lecture lecture-laboratory or seminar format will be used to discuss special topics in geology. The course content will vary from semester to semester.

EES 2097 Independent Studies 1cr.min/3cr.max
Offered each semester. Prerequisite: consent of department. Independent research projects or directed readings designed to meet the needs and interests of individual students. Regular conferences between students and instructor are required. May be repeated for a total of three credits. Section number will correspond with credit to be earned.

EES 2510 Environmental Science Policy 3cr.
Prerequisite: EES 1002. An introduction to the role of science in environmental policy making and policy analysis. Emphasis will be on understanding basic policy mechanisms, major policy actions related to environmental and resource issues, and limits of science in policy making. The approach of the course will be to focus on current environmental problems and case histories. Through hands-on analysis students will develop an appreciation for the complex causes of environmental problems and how viable solutions can be formulated.

EES 2700 Intro to Mineral and Crystal 3cr.
Prerequisites: EES 1000, 1001, CHEM 1017, MATH 1126 or consent of the department. A study of crystal structure, crystal chemistry, mineral classification, optical mineralogy, and mineral formation. Two hours of lecture and three hours of laboratory.

EES 2740 Principles of Paleontology 3cr.
Fall semester. Prerequisites: EES 1004 and 1005, and credit or enrollment in BIOS 1071 and 1073. Study of ancient life as a geological and biological science. Lab will concentrate on invertebrates will also cover vertebrates and plants. Two hours of lecture three hours of laboratory and required field trip.

EES 3091 Ind Studies-Earth and Env Sci 1cr.min/3cr.max
Prerequisite: Consent of coordinator. Directed readings, research, or applications designed to meet the needs and interests of individual students. Conferences between the student and a supervising instructor are required. May be repeated with permission.

EES 3096 Spec Topics-Earth and Env Sci 1cr.min/3cr.max
Prerequisite: Consent of coordinator. A lecture, field, and/or seminar format will be used to present special topics in the field of environmental science and policy. Content will vary from semester to semester. May be repeated with permission.

EES 3100 Earth Structure 2cr.
Prerequisites: EES 2010 and 2011, MATH 1112; concurrent enrollment in EES 3110. Description and geometric analysis of earth structures (faults folds and structural fabrics). Overview of worldwide observations of typical earth structures and structural association as well as theories for the origin of geologic structures. Includes practical exercises in construction of geologic maps and cross-sections graphical as well as trigometric solution of geometric problems and analysis of structural symmetry. One hour of lecture and 3 hours of laboratory per week.

EES 3110 Earth Structure Laboratory 2cr.
Prerequisite: Concurrent enrollment in EES 3100. Recognition of geologic structures in the field. Fourteen days of work in the field

learning the techniques of geologic mapping and recognition of geologic structures in the field. A fee will be assessed for transportation materials insurance room and board. Course will be taught over the semester break between fall and spring semesters generally in souther California.

EES 3300 Sedimentary Petrology 4cr.
One-Time Waiver.

EES 3510 Envir & Natural Resource Law 3cr.
Prerequisite: EES 2510. An overview of the environmental resource laws that affect the development and application of environmental policies.

EES 3520 Env Engr for Non-Engineers 3cr.
Prerequisite: CHEM 1018.The application of environmental engineering principles to the prevention or mitigation of environmental problems are discussed. Topics will include water quality, water purification processes in natural systems, air quality, solid wastes, and hazardous wastes. This course may not be used to fulfill degree requirements in the College of Engineering.

EES 3700 Geological Time 3cr.
Prerequisite: EES 1000, 1001. This course will survey relative and absolute geological time focusing upon geological history biostratigraphy physical stratigraphy and geochronology.

EES 3730 Introductory Geochemistry 3cr.
Prerequisites: CHEM 1018 or 1011 and consent of department. Principles of chemistry applied to the study of geological materials and processes. Emphasis will be on isotope geochemistry thermodynamics crystal chemistry and petrogenesis.

EES 3760 Introduction to Oceanography 3cr.
Prerequisites: One of the following: EES 1000; BIOS 1051 or 1073; CHEM 1010, 1012, or 1017; or PHYS 1031 or 1061. Principles of physical and chemical properties of seawater ocean and atmospheric circulation; ocean influence on climate waves tides biological process and life in the sea; sedimentation processes and paleoceanography and global climate change.

EES 3991 Undergraduate Research 1cr.min/3cr.max
Offered each semester. Prerequisite: consent of department. Independent research projects designed to meet the needs and interests of individual students. Regular conferences between student and instructor are required. The combination of credits earned in EES 3991 and 2097 can not exceed six credits. Section number will correspond with credit to be earned.

EES 4000 Statistic Method Earth Env Sci 3cr.
Prerequisites: MATH 2112 and CSCI 1201 or equivalent experience. Analysis of quantitative geological data emphasizing computer-based procedures.

EES 4000G Statistic Method Earth Env Sci 3cr.
Prerequisites: MATH 2112 and CSCI 1201 or equivalent experience. Analysis of quantitative geological data emphasizing computer-based procedures.

EES 4005 Geol Processes for Teachers I 3cr.
Prerequisites: EES 1004 and 1005 or consent of department. A course designed to provide science teachers with an understanding of earth materials and the processes that build the earth?s crust including minerals rocks volcanism earthquake activity and plate tectonics. Special attention is given to classroom/laboratory presentation.

EES 4005G Geol Processes for Teachers I 3cr.
Prerequisites: EES 1004 and 1005 or consent of department. A course designed to provide science teachers with an understanding of earth materials and the processes that build the earth?s crust including minerals rocks volcanism earthquake activity and plate tectonics. Special attention is given to classroom/laboratory presentation.

EES 4006 Earth History for Teachers 3cr.
Prerequisites: EES 1004 and 1005 or consent of department. A course designed to provide teachers with the knowledge necessary to interpret earth history including the study of fossils determining age relationships interpretation of geologic maps and construction of paleoenvironmental maps. Special attenetion is given to classroom/laboratory presentation. Two hours of lecture and two hours of laboratory.

EES 4006G Earth History for Teachers 3cr.
Prerequisites: EES 1004 and 1005 or consent of department. A course designed to provide teachers with the knowledge necessary to interpret earth history including the study of fossils determining age relationships interpretation of geologic maps and construction of paleoenvironmental maps. Special attenetion is given to classroom/laboratory presentation. Two hours of lecture and two hours of laboratory.

EES 4090 Senior Thesis 1cr.min/6cr.max
Prerequisites: Senior status and written approval of the department and the supervising professor. Supervised research on some aspect of the geological sciences. Project must be completed as a written report and the final copy approved by adviser before the second semester's credit can be received. May be repeated for a total of six credits. Section number will correspond with credit to be earned.

EES 4096 Special Topics 1cr.min/3cr.max
Prerequisite: consent of department. A lecture lecture-laboratory or seminar format will be used to discuss special topics in geology. The course content will vary from semester to semester. Section number will correspond with credit to be earned.

EES 4096 Special Topics 1cr.min/3cr.max
Prerequisite: Consent of department. A lecture lecture- laboratory or seminar format will be used to discuss special topics in geophysics. The course content will vary from semester to semester. The section number will correspond with the credit hours to be earned.

EES 4096G Special Topics 1cr.min/3cr.max
Prerequisite: consent of department. A lecture lecture-laboratory or seminar format will be used to discuss special topics in geology. The course content will vary from semester to semester. Section number will correspond with credit to be earned.

EES 4096G Special Topics 1cr.min/3cr.max
Prerequisite: Consent of department. A lecture lecture- laboratory or seminar format will be used to discuss special topics in geophysics. The course content will vary from semester to semester. The section number will correspond with the credit hours to be earned.

EES 4098 Senior Honors Thesis
1cr.min/6cr.max
Prerequisites: written consent of department professor(s) concerned and director of Honors Program. Approval of a written report and an oral defense of the thesis is required. Section number will correspond with credit to be earned. Must be repeated for a total of six credits.

EES 4099 Senior Sem-Earth and Env Sci 2cr.
Prerequisites: EES 3100, 3700, 2050. In this course students will apply a broad spectrum of studies to the solution of problems arising in geology. This course will emphasize physical processes geologic time and earth materials. Students must demonstrate a firm comprehension of those topics and be able to apply them to the solu-

tion of geologic problems in order to earn a passing grade in the course. Subject matter will vary. Successful completion of this course satisfies the general degree requirements for oral competency.

EES 4100 Approaches to Envir Problems 3cr.
Prerequisite: EES 3510. The development of plans to remediate environment problems taking into consideration the scientific, legal, economic and social aspects.

EES 4100G Approaches to Envir Problems 3cr.
Prerequisite: EES 3510. The development of plans to remediate environment problems taking into consideration the scientific, legal, economic and social aspects.

EES 4110 Introduction to Geophysics 3cr.
Spring semester. Prerequisites: EES 3100, and PHYS 1063. A study of the fundamental methods of geophysics. Emphasis is placed on seismic gravity and magnetic methods and their use in geophysical exploration. Two hours of lecture and three hours of laboratory.

EES 4110G Introduction to Geophysics 3cr.
Spring semester. Prerequisites: EES 3100, and PHYS 1063. A study of the fundamental methods of geophysics. Emphasis is placed on seismic gravity and magnetic methods and their use in geophysical exploration. Two hours of lecture and three hours of laboratory.

EES 4120 Gravity & Magnetics 3cr.
(EES 4120 and PHYS 4507 are cross-listed) Prerequisites: EES 4110, PHYS 3301 or 4501, MATH 2221, or consent of department. Fundamentals of scaler potentials and analysis of vector fields as applied to geophysical problems in gravity and magnetism. Analytic properties of the earth's gravitational and magnetic fields in space and time. Modeling and interpretation of gravity and magnetic anomalies.

EES 4120G Gravity & Magnetics 3cr.
(EES 4120 and PHYS 4507 are cross-listed) Prerequisites: EES 4110, PHYS 3301 or 4501, MATH 2221, or consent of department. Fundamentals of scaler potentials and analysis of vector fields as applied to geophysical problems in gravity and magnetism. Analytic properties of the earth?s gravitational and magnetic fields in space and time. Modeling and interpretation of gravity and magnetic anomalies.

EES 4130 Exploration Seismology 3cr.
Prerequisites: MATH 2109 or 2112; PHYS 1061; EES 3110, 3700, and 2050. Application of physical principles to naturally deformed rocks and overview of modern structural geology. Quantitative applications to solve geologic problems practical exercises in rock mechanics determination of finite strain advanced cross-section construction techniques and methods of kinematic analysis. Three hours of lecture per week.

EES 4130G Exploration Seismology 3cr.
Prerequisites: MATH 2109 or 2112; PHYS 1061; EES 3110, 3700, and 2050. Application of physical principles to naturally deformed rocks and overview of modern structural geology. Quantitative applications to solve geologic problems practical exercises in rock mechanics determination of finite strain advanced cross-section construction techniques and methods of kinematic analysis. Three hours of lecture per week.

EES 4135 Intro to Earthquake Seismology 3cr.
Prerequisites: EES 3100 and MATH 2221 or consent of department. A study of the effects of earthquakes on the environment efforts to predict earthquakes and the use of earthquake seismograms to map the interior of the Earth. Two hours of lecture and three hours of laboratory.

EES 4135G Intro to Earthquake Seismology 3cr.
Prerequisites: EES 3100 and MATH 2221 or consent of department. A study of the effects of earthquakes on the environment efforts to predict earthquakes and the use of earthquake seismograms to map the interior of the Earth. Two hours of lecture and three hours of laboratory.

EES 4140 Geomodeling 3cr.
Prerequisites: CSCI 1201 (C or FORTRAN programming course) and MATH 2109 or consent of department. This course teaches the application of Numerical Methods to the development of computer simulations of geophysical methods. The students will develop individual projects that emphasize their research interests while learning how to write the appropriate computer codes in either C or FORTRAN.

EES 4140G Geomodeling 3cr.
Prerequisites: CSCI 1201 (C or FORTRAN programming course) and MATH 2109 or consent of department. This course teaches the application of Numerical Methods to the development of computer simulations of geophysical methods. The students will develop individual projects that emphasize their research interests while learning how to write the appropriate computer codes in either C or FORTRAN.

EES 4145 Earth Physics 3cr.
Prerequisites: PHYS 1063 and MATH 2112. A study of the physics of the earth in relation to the earth's origin evolution and existing structure. To include such topics as earthquake seismology isostasy radioactive dating heat flow and the earth's gravity and magnetic field.

EES 4145G Earth Physics 3cr.
Prerequisites: PHYS 1063 and MATH 2112. A study of the physics of the earth in relation to the earth's origin evolution and existing structure. To include such topics as earthquake seismology isostasy radioactive dating heat flow and the earth's gravity and magnetic field.

EES 4150 Geophysical Field Methods 6cr.
(PHYS 3261 and EES 4150 are cross-listed) Prerequisites: PHYS 2064 and consent of instructor. Basic introduction to the application of geophysical field techniques. Includes collecting, processing, and interpreting gravity, magnetic, and seismic data. Practical experience in the conduct of geophysical surveys, operation of equipment, data reduction, and simple interpretation. Preparation of geophysical reports in the style normally used for published papers. Thirty-five hours of classroom work and field measurements per week during the summer session.

EES 4150 Geophysical Field Methods 2cr.
Prerequisite: EES 3110, 3700, 2050, and EES 4110 or permission of department. Introduction to basic acquisition of geophysical data in the field. Collection processing and interpretation of gravity and magnetic data as well as seismic reflection and refraction data. A fee will be assessed for transportation materials insurance room and board. The course will include fourteen days of field work.

EES 4150G Geophysical Field Methods 2cr.
Prerequisite: EES 3110, 3700, 2050, and EES 4110 or permission of department. Introduction to basic acquisition of geophysical data in the field. Collection processing and interpretation of gravity and magnetic data as well as seismic reflection and refraction data. A fee will be assessed for transportation materials insurance room and board. The course will include fourteen days of field work.

EES 4152 Appl Seismic Acquis & Process 3cr.
(PHYS 4381 and EES 4152 are cross-listed) Prerequisites: PHYS 4205, EES 4110 and MATH 2221 or consent of department. Basic acoustics

and ray tracing; seismic data acquisition; CDP; noise analyses and arrays; physics of acoustic sources, measuring and recording instruments; demultiplexing; NMO and velocity analysis; statics; and introduction to deconvolution, filtering, and migration. Use of fundamental seismic data processing computer programs, graphics, and displays of seismic data; seismic data processing of field data. Two hours of lecture and two hours of computer laboratory per week.

EES 4152G Appl Seismic Acquis & Process 3cr.
(PHYS 4381 and EES 4152 are cross-listed) Prerequisites: PHYS 4205, EES 4110 and MATH 2221 or consent of department. Basic acoustics and ray tracing; seismic data acquisition; CDP; noise analyses and arrays; physics of acoustic sources, measuring and recording instruments; demultiplexing; NMO and velocity analysis; statics; and introduction to deconvolution, filtering, and migration. Use of fundamental seismic data processing computer programs, graphics, and displays of seismic data; seismic data processing of field data. Two hours of lecture and two hours of computer laboratory per week.

EES 4160 Seismic Stratigraphy 2cr.
Prerequisite: EES 4110 or consent of department. Interpretation of stratigraphy from seismic records. Analysis of unconformities environments of deposition and local and world-wide sea level curves. Two hours of lecture/discussion.

EES 4160G Seismic Stratigraphy 2cr.
Prerequisite: EES 4110 or consent of department. Interpretation of stratigraphy from seismic records. Analysis of unconformities environments of deposition and local and world-wide sea level curves. Two hours of lecture/discussion.

EES 4161 Gulf Coast Geology 3cr.
Fall semester. Prerequisites: EES 3110, 3700, 2050, or consent of department. Geology of the Gulf Coastal Plain and Gulf Basin including physiography stratigraphy structure and economic geology.

EES 4161G Gulf Coast Geology 3cr.
Fall semester. Prerequisites: EES 3110, 3700, 2050, or consent of department. Geology of the Gulf Coastal Plain and Gulf Basin including physiography stratigraphy structure and economic geology.

EES 4165 Geophysical Explore & Interp 3cr.
Prerequisites: EES 3100 and PHYS 1062 or consent of department. A study of the fundamental methods of geophysical exploration and interpretation. To include geophysical principles of gravity magnetics and seismology in order to make better geological interpretation of geophysical data.

EES 4165G Geophysical Explore & Interp 3cr.
Prerequisites: EES 3100 and PHYS 1062 or consent of department. A study of the fundamental methods of geophysical exploration and interpretation. To include geophysical principles of gravity magnetics and seismology in order to make better geological interpretation of geophysical data.

EES 4200 Geomorphology 3cr.
(GEOG 4822, GEOG 4822G, and EES 4200 are cross-listed) A study of land forms and the processes that have shaped the natural landscape. A study of the physical geography and geology of the United States through maps and aerial photographs is undertaken in the laboratory. Two hours of lecture and three hours of laboratory.

EES 4200G Geomorphology cr.
(GEOG 4822, GEOG 4822G, and EES 4200 are cross-listed) A study of land forms and the processes that have shaped the natural landscape. A study of the physical geography and geology of the United States through maps and aerial photographs is undertaken in the laboratory. Two hours of lecture and three hours of laboratory.

EES 4300 Envirmental Field Methods 2cr.
Prerequisites: A study of the fundamentals of environmental field methods. The course will include 14 days in the field. Example studies include wetland delineation soil sampling water sampling landslide identification and earthquake hazard assessment. A fee may be assessed to cover transportation and supplies.

EES 4300G Envirmental Field Methods 2cr.
Prerequisites: A study of the fundamentals of environmental field methods. The course will include 14 days in the field. Example studies include wetland delineation soil sampling water sampling landslide identification and earthquake hazard assessment. A fee may be assessed to cover transportation and supplies.

EES 4550 Coastal Geomorphology 3cr.
Prerequisite: Consent of department. The study of the geomorphology of land forms and the processes that shape them. This course surveys the coasts of the world and the challenges they present to our society. Topics range from tectonic classification of coasts to sea level history, coastal processes, coastal land forms, and environmental coastal issues. A fee will be assessed to cover transportation and supplies.

EES 4550G Coastal Geomorphology 3cr.
Prerequisite: Consent of department. The study of the geomorphology of land forms and the processes that shape them. This course surveys the coasts of the world and the challenges they present to our society. Topics range from tectonic classification of coasts to sea level history, coastal processes, coastal land forms, and environmental coastal issues. A fee will be assessed to cover transportation and supplies.

EES 4560 Env Geol Coastal LA 3cr.
Prerequisite: consent of department. This course investigates the Holocene evolution of south Louisiana and the environmental issues found in this coastal zone. Topics addressed include the modern development of the Mississippi RIver delta and chenier plains, flood and diversion control, coastal land loss, hurricanes,environmental quality, and coastal restoration. A fee may be assessed to cover transportation and supplies.

EES 4560G Env Geol Coastal LA 3cr.
Prerequisite: consent of department. This course investigates the Holocene evolution of south Louisiana and the environmental issues found in this coastal zone. Topics addressed include the modern development of the Mississippi RIver delta and chenier plains, flood and diversion control, coastal land loss, hurricanes,environmental quality, and coastal restoration. A fee may be assessed to cover transportation and supplies.

EES 4700 Advanced Field Geology 2cr.
Prerequisite: EES 3110, 3700, 2050 or consent of department. Emphasis on determination of structure in complexly deformed terranes. Two weeks of field work including exercises in complexly faulted and folded rocks as well as analysis of structure in ductilely deformed rocks. Recommended for all undergraduates planning graduate study in geology and for all graduate students who need a refresher course in advanced field techniques. A fee will be assessed for transportation materials insurance room and board. Course taught immediately after spring semester generally in southern California.

EES 4700G Advanced Field Geology 2cr.
Prerequisite: EES 3110, 3700, 2050 or consent of department. Emphasis on determination of structure in complexly deformed terranes. Two weeks of field work including exercises in complexly

faulted and folded rocks as well as analysis of structure in ductilely deformed rocks. Recommended for all undergraduates planning graduate study in geology and for all graduate students who need a refresher course in advanced field techniques. A fee will be assessed for transportation materials insurance room and board. Course taught immediately after spring semester generally in southern California.

EES 4711 Intro X-Ray Crystallography 2cr.
Fall semester. Prerequisites: EES 2700, MATH 2112, CHEM 1018, and consent of department. Introduction to the theory and techniques of X-ray analysis of crystalline materials. One hour of lecture and three hours of laboratory.

EES 4711G Intro X-Ray Crystallography 2cr.
Fall semester. Prerequisites: EES 2700, MATH 2112, CHEM 1018, and consent of department. Introduction to the theory and techniques of X-ray analysis of crystalline materials. One hour of lecture and three hours of laboratory.

EES 4720 Global Tectonics 3cr.
Prerequisites: EES 3110, 3700, and 2050; MATH 2112 or 2109; EES 4110 or 4145 recommended; or consent of the department. Overview of plate tectonic principles with specific geologic applications. Geophysical characteristics of plate margins descriptions of plate motions and plate reconstructions. Geological characteristics of plate margins tectonic analysis of ancient plate margins and theories on the plate tectonic driving mechanism. Two hours of lecture and three hours of laboratory.

EES 4720G Global Tectonics 3cr.
Prerequisites: EES 3110, 3700, and 2050; MATH 2112 or 2109; EES 4110 or 4145 recommended; or consent of the department. Overview of plate tectonic principles with specific geologic applications. Geophysical characteristics of plate margins descriptions of plate motions and plate reconstructions. Geological characteristics of plate margins tectonic analysis of ancient plate margins and theories on the plate tectonic driving mechanism. Two hours of lecture and three hours of laboratory.

EES 4730 Environmental Geochemistry 3cr.
Prerequisites: CHEM 1018 or 1011 and CHEM 2217 or consent of department. Chemical reactivities of common inorganic and organic pollutants are presented for different natural environments. The chemistry of methods used to neutralize and/or remove these pollutants from the environment are discussed. Three hours of lecture.

EES 4730G Environmental Geochemistry 3cr.
Prerequisites: CHEM 1018 or 1011 and CHEM 2217 or consent of department. Chemical reactivities of common inorganic and organic pollutants are presented for different natural environments. The chemistry of methods used to neutralize and/or remove these pollutants from the environment are discussed. Three hours of lecture.

EES 4735 Hydrogeology 3cr.
Prerequisites: EES 2050, MATH 2109 or 2112, or consent of department. A study of the fundamentals of ground water: geologic occurrence exploration and physical properties. Focuses on the subsurface distribution and movement of water in geologic materials. Three hours lecture per week.

EES 4735G Hydrogeology 3cr.
Prerequisites: EES 2050, MATH 2109 or 2112, or consent of department. A study of the fundamentals of ground water: geologic occurrence exploration and physical properties. Focuses on the subsurface distribution and movement of water in geologic materials. Three hours lecture per week.

EES 4740 Vertebrate Paleontology 3cr.
One-Time Waiver.

EES 4750 Principles of Stratigraphy 3cr.
Prerequisites: EES 2010, 2011, 3700. An introduction to the principles of stratigraphic analysis and correlation of sedimentary rocks. Provides an overview of depositional systems and stratigraphic successions in different tectonic domains. Includes practical exercises in the interpretation of depositional systems, construction of stratigraphic cross sections, construction of isopach and structural contour maps and interpretation of seismic reflection profiles. Two hours of lecture and two hours of laboratory per week with oral and written assignments. One afternoon field trip and a week-long field trip to the central/southern Appalachians are required. A field trip fee will be assessed to cover transportation and other field trip related costs.

EES 4750G Principles of Stratigraphy 3cr.
Prerequisites: EES 2010, 2011, 3700. An introduction to the principles of stratigraphic analysis and correlation of sedimentary rocks. Provides an overview of depositional systems and stratigraphic successions in different tectonic domains. Includes practical exercises in the interpretation of depositional systems, construction of stratigraphic cross sections, construction of isopach and structural contour maps and interpretation of seismic reflection profiles. Two hours of lecture and two hours of laboratory per week with oral and written assignments. One afternoon field trip and a week-long field trip to the central/southern Appalachians are required. A field trip fee will be assessed to cover transportation and other field trip related costs.

EES 4770 Subsurface Geology Methods 3cr.
Fall semester. Prerequisites: EES 3100, 3700, 2050, and consent of department. Subsurface methods used in the study of the origin migration and accumulation of petroleum. Two hours of lecture and three hours of laboratory.

EES 4770G Subsurface Geology Methods 3cr.
Fall semester. Prerequisites: EES 3100, 3700, 2050, and consent of department. Subsurface methods used in the study of the origin migration and accumulation of petroleum. Two hours of lecture and three hours of laboratory.

EES 4840 Structural Geology 3cr.
Prerequisites: MATH 2109 or 2112; PHYS 1061; EES 3110, 3700, and 2050. Application of physical principles to naturally deformed rocks and overview of modern structural geology. Quantitative applications to solve geologic problems practical exercises in rock mechanics determination of finite strain advanced cross-section construction techniques and methods of kinematic analysis. Three hours of lecture per week.

EES 4840G Structural Geology 3cr.
Prerequisites: MATH 2109 or 2112; PHYS 1061; EES 3110, 3700, and 2050. Application of physical principles to naturally deformed rocks and overview of modern structural geology. Quantitative applications to solve geologic problems practical exercises in rock mechanics determination of finite strain advanced cross-section construction techniques and methods of kinematic analysis. Three hours of lecture per week.

EES 4949 Natural Resource Mang 3cr.
One-Time Waiver.

EES 4949G Natural Resource Mang 3cr.
One-Time Waiver.

EES 4950 Natural Resource Mang Lab 1cr.
One-Time Waiver.

EES 4950G Natural Resource Mang Lab 1cr.
One-Time Waiver.

EES 6005 Geologic Proc for Teachers II 3cr.
Prerequisites: EES 4005 and 4006 or consent of the department. A course designed to provide science teachers with an understanding of landscape development and the processes that wear down the earth?s surfcae including the work of water ice wind and waves. Special attention is given to classroom/laboratory presentation. Two hours of lecture and two hours of laboratory.

EES 6006 Interpreting Earth History 3cr.
Prerequisites: EES 4005 and 4006 or consent of department. Methods and materials in interpreting earth history. Historical development of the earth and its inhabitants. Laboratory techniques group projects and independent studies. Two hours of lecture and two hours of laboratory.

EES 6090 Graduate Seminar 1cr.
Offered each semester. Students and faculty will discuss their research work on timely topics in geology. Required each semester for graduate students in geology. One credit each semester to a maximum of three credits. One hour of lecture-discussion.

EES 6096 Special Topics 1cr.min/3cr.max
Offered each semester. Prerequisite: consent of department. A lecture lecture/laboratory or seminar format will be used to discuss special topics in geology. The course content will vary from semester to semester. The section number will correspond with the credit to be earned.

EES 6096 Special Topics 1cr.min/3cr.max
Prerequisite: consent of department. A lecture lecture- laboratory or seminar format will be used to discuss special topics in geophysics. The course content will vary from semester to semester. The section number will correspond to the number of credit hours earned.

EES 6097 Independent Study 1cr.min/3cr.max
Offered each semester. Prerequisite: consent of department. A lecture lecture/laboratory or seminar format will be used to discuss special topics in geology. The course content will vary from semester to semester. The section number will correspond with the credit to be earned.

EES 6097 Independent Study 1cr.min/3cr.max
Offered each semester. Prerequisite: consent of department. Independent research projects that are not part of a graduate thesis or directed readings designed to meet the needs and interests of individual students. Regular conferences between the student and instructor are required. May be repeated for a total of three credits.

EES 6265 Surface Process & Env Dynamics 3cr.
One-Time Waiver.

EES 6265 Surf Process & Environ Dynam 3cr.
Prerequisite: EES 3265 or consent of department. A study of present-day continental shelf-coastal and oceanic environments emphasizing how understanding sedimentary processes can be used in developing lithofacies models. Three hours of lecture.

EES 6275 Paleoceanography 3cr.
Prerequisite: consent of the department. The study of changes in the ocean-atmosphere system as preserved in marine sediments. The record of changing global climate and environmental change on geologic time scales. Late Genozoic glaciation, catastophic global environmental events, and long-term evolution of climate change patterns.

EES 6337 Advanced Carbonate Petrology 3cr.
Prerequisite: Consent of department. Analysis and interpretation of carbonate lithofacies and diagenetic fabrics. Two hours of lecture and three hours of laboratory.

EES 6346 Clastic Diagenesis 3cr.
Prerequisites: Consent of department. Origin and interpretation of diagenetic features in sedimentary rocks. Effects of diagenesis on porosity, permeability, and cementation. Chemical conditions favoring development of secondary porosity and fluid flow. Relation between mineral transformations and diagenetic grade. Two hours of lecture and three hours of laboratory.

EES 6658 Low Temperature Geochemistry 3cr.
Spring semester. Prerequisites: EES 4730 and CSCI 1060 or consent of department. Comprehensive study of chemical processes in geologic systems at temperatures and pressures from earth surface conditions through diagenesis (200EC and 1 kilobar). Emphasis will be placed on the use of equilibrium thermodynamics chemical kinetics diffusion and advection to explain reservoir diagenesis.

EES 6710 Environmental Statistics 3cr.
Prerequisites: MATH 2112 or consent of department. Applications of geostatistics to environmental problems. Extensive use of the U.S. Environmental Protection Agency's GEO-EAS and GEOPACK software for variogram analysis and kriging. Three hours lecture per week.

EES 6760 Coastal Restoration & Managmnt 3cr.
Prerequisite: consent of the department. Coastal problems and appropriate mitigation approaches on barrier shorelines and beaches, deltas, and estuaries. Management aspects include project implementation and a background to regulatory frameworks for coastal restoration decision-making.

EES 6810 Geophysical Data Processing 3cr.
Prerequisites: EES 4130, CSCI 1060, MATH 2221, and PHYS 4205 or MATH 4213 or consent of department. Transforms one-sided functions spectral factorization resolution matrices and multi-channel time series data modeling by least squares waveform applications of least squares layers revealed by scattered wave filtering and mathematical physics in stratified media.

EES 6840 Reflection Seismology 3cr.
Prerequisites: EES 4130, CSCI 1060, MATH 2221, and PHYS 4205 or MATH 4213 or consent of department. Seismic velocity synthetic seismogram filtering convolution and deconvolution of seismic data; migration for the delineation of geological structures; and geophysical Inverse Theory for determining lithology.

EES 6888 Advanced Structural Geology 3cr.
Prerequisites: EES 2288 and MATH 2109 or 2112 (recommended MATH 2511). Application of continuum mechanics to analysis of geologic structures. Emphasis is on quantitative assessment of structural problems but specific topics covered will depend upon the class? background and interests. Three lectures per week.

EES 7000 Thesis Research 1cr.min/9cr.max
Offered each semester. By arrangement with the graduate adviser. Three hours of laboratory work per credit hour. Section number will correspond with credit to be earned. To be repeated for credit until thesis is accepted.

EES 7040 Examination or Thesis Only 0cr.
No credit. Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

Economics

ECON 1000 An Introduction to Current Economic Issues 3cr.
Offered each semester. An elementary study and analysis of current economic issues for both the beginning business and the non-business student. Introduces a minimum of economic concepts to allow the student to understand and to cope with national, international, regional, and/or local issues. The principal goal of the course is to attain a level of economic understanding sufficient for a citizen to analyze and evaluate economic issues. Not open to students enrolled in the College of Business Administration who have completed 30 semester hours (or more) of University credit.

ECON 1203 Principles of Microeconomics 3cr.
Offered each semester. Prerequisites: MATH 1115 or equivalent and placement in ENGL 1157 or higher. Credit will not be given for both ECON 1203 and 2200. An introduction to the principles of economics; the economics of the firm, including market demand and the costs of production; the market structures of American capitalism; the pricing of products and employment of resources including the determinants of wages, interest, rents, and profits.

ECON 1204 Principles of Macroeconomics 3cr.
Offered each semester. Prerequisite: prior or concurrent enrollment in ECON 1203. Credit will not be given for both ECON 1204 and 2200. An introduction to the theory of aggregate income, employment, and the price level; economic stabilization policies; economic growth and development; and international economics.

ECON 1273 Development of the Economic System in the United States 3cr.
Offered each semester. A study and an analysis of the major forces of the American economic system from colonial times to present times. Attention will be given to forces leading the United States into internationalism.

ECON 2000 Engineering Economy 3cr.
Offered each semester. (Not for credit toward a degree in business administration) Planning economic studies for decision making including considerations of rate of return, cost and yield studies, depreciation and tax relationships, increment costs, replacement, and introduction to multivariate alternative studies.

ECON 2200 Economic Principles 3cr.
Offered each semester. Credit will not be given for both ECON 2200 and 1203, 1204. (Not for credit in the College of Business Administration) This course is designed to give non-business students a comprehensive introduction to economic principles and problems. In addition to theoretical treatment of the price system, attention is given to current economic problems such as those relating to money and banking, labor, taxation, tariffs, and international trade.

ECON 2221 Money and Banking 3cr.
Offered each semester. Prerequisite: ECON 1203, 1204, or 2200. A survey of money, commercial banking, financial institutions, the Federal Reserve System, and the formulation and execution of monetary and economic stabilization policy.

ECON 2260 International Economics 3cr.
Prerequisites: ECON 2200 or 1203. A broad view of the workings of the international economy. While presenting the modern theory of trade, the course will emphasize issues such as consequences of liberalization of trade policies, trade (such as voluntary export constraints, and dumping), arguments for and against trade, international trade agreements, strategic trade policy, foreign direct investment, exchange rate determination, exchange rate systems, and economic policy cooperation.

ECON 3000 Managerial Economics 3cr.
Prerequisite: ECON 1203. Particular concepts and corresponding analysis underlie managerial decisions and shape business strategies. This course deals with concepts rooted in economics and used in practical decisions made by business executives. In this way, the language and reasoning of executive decision making are developed. Emphasis is placed on language, concepts, and analysis embedded in current methods and techniques of executive and managerial decision making.

ECON 3099 Senior Honors Thesis 1-6cr.
Offered each semester. Prerequisites: consent of department and Honors Program director. Senior honors thesis under the direction of a faculty member. Section number will correspond with credit to be earned. Must be repeated for a total of six credit hours.

ECON 3203 Intermediate Microeconomic Theory 3cr.
Offered each semester. Prerequisite: ECON 1203 or 2200. A study of resource allocation and of factor pricing in an enterprise economy.

ECON 3204 Intermediate Macroeconomic Theory 3cr.
Offered each semester. Prerequisite: ECON 1203, 1204, or 2200. A course in macroeconomic analysis which covers modern income and employment theory. Special attention will be given to macroeconomic problems and economic stabilization.

ECON 3211 The Evolution of Economic Thought 3cr.
Designed to acquaint the student with the leading economic theorists who have influenced economics as a body of scientifically developed propositions.

ECON 3231 Labor Economics 3cr.
Prerequisite: ECON 1203 or 2200. A survey of the nature and causes of the economic problems of the American wage earner (insecurity, wages, hours, and substandard workers) and of the attempts of wage earners and society through organization and legislation to alleviate and solve these problems.

ECON 3292 Internship in Business and Economics 3cr.
Prerequisites: BA 2780 or equivalent, QMBE 2786 or equivalent, or consent of department. Student intern is engaged ten hours per week at the site of an assigned participating organization which directs the intern in a specific research project. Students wishing to take this course should apply a semester in advance since enrollment is limited by internships available.

ECON 3299 Honors Colloquium 1cr.
Prerequisites: sophomore, junior, or senior standing; recommendation of a student's dean; and approval of department. Study of primal and pivotal personages, works, and ideas in economics. Readings, papers, and examinations at the discretion of the coordinator.

ECON 3595 Academic Year Abroad: Special Topics in Economics 3cr.
This course is only offered through UNO's Academic Year Abroad (AYA) in Innsbruck, Austria and can be repeated once for credit.

ECON 3999 Special Topics in Economics 3cr.
Prerequisite: Consent of Department. Topic will vary from semester to semester. (May be repeated once for credit.) The course content and materials will vary depending upon the professor and course title. Enrollment as well as when it is to be offered will be contingent upon same.

ECON 4205 Business Cycles and Forecasting 3cr.
(ECON 4205 and FIN 4305 are cross-listed) Prerequisite: ECON 1203, 1204, and QMBE 2786. Univariate forecasting models; multiple time series model building. Applications to business trends and business cycles.

ECON 4241 Public Finance 3cr.
Prerequisite: ECON 1203 or 2200. This is a general course in the principles of public finance. It covers the economic effects of public revenues, public expenditures, and intergovernmental fiscal relations. Special attention is given to problems of fiscal policy and debt management at the federal level.

ECON 4242 The Economics of State and Local Finance 3cr.
Prerequisite: ECON 1203 or 2200. This is a course designed to analyze the functions of state and local governments relating to the provision of public goods. The demand for and the supply of public goods as well as the production of these goods will be examined. Optimal methods of financing these government services will be investigated. The tax incidence and the equity of various financing forms will be presented. Grants-in-aid, revenue sharing, and other federal policies affecting intergovernmental relations in a federal system will also be analyzed.

ECON 4250 Health Care Economics 3cr.
Prerequisite: ECON 1203. An overview of the major economic considerations in the health care industry. Emphasis on economic theory and empirical analysis with applications to health care markets, health care institutions, physicians, health insurance, and government health care programs and regulations.

ECON 4251 The Economics of Government Regulation 3cr.
Prerequisite: ECON 1203 or 2200. Analysis of the economic bases, policies, and consequences of government regulation of economic activity, with particular emphasis upon government regulation directed toward mobilization of the economy.

ECON 4252 Law and Economics 3cr.
Prerequisite: ECON 3203 or consent of department. A study of the theory of law and economics, including the economics of property rights and public choice theory. The course concentrates on the impact of the legal system on the allocation and distribution of resources in a wide variety of areas including antitrust, public utility regulation, money and banking, zoning, the environment, and others.

ECON 4253 Environmental Economics 3cr.
Prerequisite: ECON 1203 or 2200. A study of the economic theory of environmental externalities as applied to air and water pollution and solid waste management; economic analysis of alternative environmental policies and programs.

ECON 4254 Economics of the Arts 3cr.
Prerequisite: ECON 2000 or 1203. Investigates the arts as economic activities. Considers the labor, capital, and other resources used to generate arts goods and services in drama, music, the visual arts, and related areas. Investigates the distinctive positions of profit versus non-profit activities. Surveys public versus private subsidization of arts activities. Studies the effects of changing technology, leisure habits, and art forms themselves on the future of arts in the economic setting. May not be taken for graduate credit.

ECON 4261 International Trade Theory 3cr.
Prerequisite: ECON 1203 or 2200. An introduction to the classical and modern theories of international trade, international payments, and adjustment of international disequilibrium.

ECON 4262 International Finance 3cr.
(ECON 4262 and FIN 4362 are cross-listed) Prerequisite: ECON 1203 and 1204 or ECON 2200, or FIN 3300. This course examines the financial operations of the firm from an international point of view. It draws upon topics such as exchange rate determination, foreign exchange exposures (risks) for the multinational firm and techniques to hedge such exposures, international bond, equity and currency markets, trade documentation, and international capital budgeting. Students may not receive graduate credit for both ECON 4262, FIN 4362, and FIN 6367.

ECON 4263 Transportation 3cr.
Prerequisite: ECON 1203, 1204, or 2200. A generalized view of the development of transportation systems in the United States, the economic significance of transportation in an industrial society, and principles and problems of transport regulation.

ECON 4264 Economics of Natural Resources 3cr.
Prerequisite: ECON 1203 or 2200. An economic analysis of the practices and problems in man's utilization of land, water, air, forest, soil, and mineral resources.

ECON 4265 Regional Economics 3cr.
Prerequisite: ECON 1203 or 2200 or consent of department. Analysis of theoretical models and empirical studies of regional economic development. It covers classical location theory and introduces export base, regional multiplier theory, and input-output analysis.

ECON 4266 Urban Economics 3cr.
Prerequisite: ECON 1203 or 2200 or consent of department. Nature, function, and economic foundation of cities; resource allocation in an urban context; urban economic growth; spatial structure land-use patterns; central business district functions; centralizing and decentralizing forces; urban public services; government decision making in metropolitan areas; housing, transportation, racial discrimination, poverty problems, and pollution.

ECON 4272 Comparative Economic Systems 3cr.
Prerequisite: ECON 1203, 1204, and 2200. A survey and comparison of differing systems of economic organization. May not be taken for graduate credit.

ECON 4291 Undergraduate Directed Individual Study 3cr.
(ECON 4291 and FIN 4391 are cross-listed) Offered each semester. Prerequisites: Approval of the directed individual study by the department chair and the supervising professor is required prior to registration. The student should refer to the College of Business Administration Policy On Undergraduate Directed Individual Study available in the Department of Economics and Finance. This course is arranged individually in order to provide latitude for specialized study and research under the direction of a faculty member. Progress reports, readings, conferences, and a research paper are required. May be repeated.

ECON 4400 Economic Foundations for Managers 3cr.
Economic foundation needed for managerial decision making. Prepares students for graduate study in Business Administration. It deals with problems of scarcity and how choices made by individuals, businesses, and governments serve to address allocation questions that arise form scarcity. Not open to College of Business undergraduate majors or Liberal Arts economics majors. May not be taken for graduate credit. Students may not receive credit for both ECON 1203 and ECON 1204 and this course.

ECON 6200 Managerial Economics 3cr.
Prerequisite: Economics 4400 or equivalent, Quantitative Methods in Business and Economics 4400 (Statistics) or equivalent. Economic concepts and analysis that underlie managerial decisions and shape business strategies. Topics include basic economic concepts of demand, supply, production, cost and profit along with applications to strategies dealing with productivity, cost and profit improvement; price determination; vertical and horizontal boundaries of businesses; competitive analysis; and competitive advantage.

ECON 6202 International Economics 3cr.
Prerequisite: ECON 3203 or ECON 6200. A broad view of the workings of the international economy. Topics include: trade theory,

trade regulations and policies, international factor movements, foreign exchange markets, and international economic policy.

ECON 6203 Microeconomic Theory 3cr.
Prerequisite: QMBE 6280 and ECON 3203, or consent of department. Analysis of pricing and distribution under perfect and imperfect market structures, social welfare concepts, and other current microeconomic topics.

ECON 6204 Macroeconomic Theory 3cr.
Prerequisite: ECON 3204 and QMBE 6280 or consent of department. Analysis of Keynesian and classical models with comparative statics. Permanent and transitory shocks. New classical macroeconomic issues including signal extraction, policy ineffectiveness, observational equivalence, and Lucas's critique. Overlapping generations models and multiple equilibria. Growth theory with comparative dynamics.

ECON 6205 Seminar in Business Conditions Analysis 3cr.

ECON 6206 Welfare Economics 3cr.
Prerequisite: ECON 6203. Welfare economics in a general equilibrium framework; Pare to optimality and the efficiency of perfect and imperfect competition; external effects in production and consumption; taxes subsidies and compensation; social welfare functions; the theory of second best; and externalities and free enterprise.

ECON 6207 Seminar in Microeconomics 3cr.
Prerequisite: ECON 6203. The course will use the models and concepts developed in ECON 6203 to examine the properties of general equilibrium in a market economy. Also the course will introduce state preference models and expose students to selected topics in production theory the economics of information and game theory.

ECON 6208 Seminar in Macroeconomics 3cr.
Prerequisite: QMBE 6280 and ECON 6204. This course will examine extensions and alternatives to the models presented in ECON 6204. Emphasis will be given to 1) disequilibrium models and 2) growth models. Also the course will survey current topics in macroeconomics.

ECON 6209 Economics of Risk and Uncertainty 3cr.
Prerequisites: ECON 6207. Methods used to introduce risk and uncertainty into various economic and financial models; analysis of behavior in individuals, firms and markets in risky situations.

ECON 6220 International Monetary Economics 3cr.
Prerequisite: ECON 2221. Topics include the balance of payments and adjustment mechanisms, exchange markets, international capital markets, macroeconomic policies in the open economy, and international reserves and liquidity. Special attention is given to the roles of asset markets and expectations in exchange rate determination and international macroeconomic policies.

ECON 6221 Monetary Theory 3cr.
Prerequisite: ECON 6204, QMBE 6281. An examination of the development of monetary theory, the implementation of policy, and the current controversies in theory and policy.

ECON 6241 Public Finance and Taxation 3cr.
A study of the theory of public finance and problems of taxation, with special attention to the recent literature.

ECON 6251 Seminar in Industrial Organization 3cr.
A survey of the organization of industry in the American economy with emphasis on the empirical and analytical techniques used in investigating structure and performance in the manufacturing sector of the economy.

ECON 6261 Seminar in International Economics 3cr.
Prerequisite: ECON 6220 and QMBE 6282. Advanced topics and readings in International Financial Economics.

ECON 6266 Urban Economics and Spatial Structures 3cr.
Prerequisites: ECON 3781 or a calculus equivalent. Topics in the financial and economic theory of urban areas: cities as open regions in a larger economy, urban spatial structures within financial and externality limitations, urban transportation, land use controls, and the urban public economy.

ECON 6292 Directed Individual Studies 3cr.
Prerequisite: consent of department. This tutorial is arranged individually in order to provide latitude for specialized study and research. May be repeated for credit.

ECON 6294 Internship in Economics 3cr.
Prerequisite: 15 hours of MBA courses with at least a 3.0 GPA and consent of the department. The student will work a minimum of 150 hours during the semester at the site of a participating organization that directs the intern in a specific economic project. Students must in addition engage in extensive outside research in the subject area related to their internship and submit a substantial report on this research reflecting a graduate level of learning. Enrollment is limited. May not be repeated for credit.

ECON 6295 Special Topics in Economics 1-4cr.
An intensive study of selected special topics in Economics. Topics will vary based on contemporary needs as dictated by the discipline as well as the interests of the students and the instructor. Section number will correspond with the number of credits to be earned.

ECON 7040 Examination or Thesis Only 0cr.
No credit. Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

ECON 7050 Dissertation Research 1-9cr.
(ECON 7050 and FIN 7050 are cross-listed)Preparation of dissertation by Ph.D. candidate under direction of major professor and dissertation committee. Section number will correspond with credit to be earned. To be repeated for credit until dissertation is accepted.

ECON 7051 Dissertation Workshop 1cr.
(ECON 7051 and FIN 7051 are cross-listed) Prerequisite: Consent of the department. This is a required course for all third year Ph. D. Students in Financial Economics. Students will present progress reports on their dissertation research for critique by faculty and other graduate students.

Educational Administration

EDAD 6090 Independent Research in Educational Administration 1cr.
Prerequisites: consent of department and major professor. Independent research under the supervision of a faculty member. The student is responsible for the selection of the area of research. The course may be repeated but total credit may not exceed six semester hours. Section number will correspond with credit to be earned.

EDAD 6370 Methods of Adult Education 3cr.
(EDCI 6370 and EDAD 6370 are cross-listed) A study of the variety of techniques and strategies to assess needs, present information, facilitate learning, organize the learning environment, and evaluate the performance of adult learners.

EDAD 6535 College Student Development 3cr.
An overview of the issues, theories and practices associated with

effective college student development. Topics examined include various developmental and college impact theories of change and the unique characteristics and development of diverse groups of college students. The implications of interactions between theory and practice for student affairs professionals are examined throughout the course.

EDAD 6600 The American College and University 3cr.
Introduction to contemporary United States higher education, with special emphasis on historical development, emerging trends, roles of faculty, students and administrators in the several kinds of institutions, the composition and character of governing boards, administrative hierarchy, and their coordination for colleges, universities and state systems.

EDAD 6605 Community & Technical Colleges 3cr.
This course provides an overview of community and technical college education. It examines the history and philosophy of community and technical colleges; the skills and competencies needed by educational professionals working in these postsecondary settings; the application of appropriate administrative, educational and counseling theories in community and technical colleges; and an overview of contemporary issues in community and technical college education. The interactions between theory and practice for faculty, counselors, and administrators working in the community and technical colleges are examined throughout the course.

EDAD 6610 Legal Aspects of Higher Education 3cr.
Prerequisite: Educational Administration 6600 or consent of department. This course provides an overview of the historic and contemporary influence of the U.S. Constitution, federal and state statutes, case law, and agency regulations that apply to the governance of higher education.

EDAD 6615 Financial Management in Higher Education 3cr.
This course will provide an overview of the basic concepts, procedures, and applications used to finance higher education both in the public and private sectors. Financial management techniques and procedures currently in use in higher education institutions will be discussed and analyzed.

EDAD 6620 History and Philosophy of Higher Education 3cr.
Prerequisite: EDAD 6600 or consent of department. Over-view of the development of the American system of post-secondary education its origins, philosophical perspectives, major characteristics, distinctive features, and trends.

EDAD 6630 Student Choice in Higher Education 3cr.
Factors that influence student choice in higher education, including decisions about attending college, choosing a school, choosing a major, and persisting in college are identified. The ways in which student choice research can inform the development and refinement of institutional enrollment management strategies and government finance policies are also analyzed and discussed.

EDAD 6640 College Teaching 3cr.
(EDCI 6758 AND EDAD 6640 are cross listed) This course provides an overview of the issues principles and practices associated with effective college teaching. Topics examined include learning and diversity; teaching models and strategies teacher and student behaviors and learning outcomes; and instructional improvement strategies. The interaction of theory and practice is an important theme of the course.

EDAD 6645 College Student Learning 3cr.
(EDCI 6759 and EDAD 6645 are cross-listed) This course examines recent advances in research and theory related to behavioral, humanistic, information-processing, developmental, motivational, social, cognitive, epistemological, developmental, multicultural, constructivist, and other contemporary perspectives on how college students learn. Research and theory in these areas will be studied in ways that emphasize concrete implications for teaching practices, curriculum development, and student services in the design of effective learning environments for students in traditional two-year and four-year classrooms as well as in other non-traditional postsecondary contexts.

EDAD 6650 College Curriculum 3cr.
(EDCI 6658 and EDAD 6650 are cross listed) This course provides an over-view of the issues, principles, and practices associated with college curriculum development. Topics include the diversity of philosophical foundations for college curricula; perspectives and models of the college curriculum in higher education. The interaction of theory and practice is an important theme of the course.

EDAD 6675 Current Issues In Higher Education 3cr.
This course examines current issues in American higher education and provides an overview of the current status of higher education in terms of individual and institutional trends. It focuses on recent developments in theory, research, policy and practice related to prominent contemporary issues; facilitates the critical analysis of such issues; and provides a forum in which the most recent issues can be synthesized in a manner that promotes a greater understanding of the dynamic interactions between research (methods and theory) and application (policy and practice).

EDAD 6681 Organization & Leadership in Higher Education 3cr.
Prerequisite: admission to doctoral program in educational administration or consent of the department. This course requires students to use different analytical and critical approaches for understanding the complex manner in which American postsecondary education, primarily colleges and universities, are organized, governed, administered, and led. The purposes of the course involve providing an overview or organization including the forms, structures, roles, and functions of higher education and leadership theory including leadership roles, management principles and practices. Topics examined include classic organization theory, traditional administrative and governance models, campus climate and culture, leadership theory and analysis, management principles, institutional change and assessment, race and gender, and governance.

EDAD 6682 Policy Analysis in Higher Education 3cr.
Prerequisite: admission to doctoral program in educational administration or consent of the department. This course examines policies within higher education institutions, as well as state and federal policies related to higher education, the elements of the policy-making process, and the strategies for research and policy analysis in higher education. Topics examined include the historical development of higher education policy; the process of policy-making at the institutional, state, and federal levels and the role of colleges or universities in that process; the various non-governmental agencies and constituents involved in policy-making; methods for policy analysis and research; and current issues in higher education policy such as access, affordability, and accountability and institutional response to these issues.

EDAD 6683 Students in Higher Education 3cr.
Prerequisite: admission to doctoral program in educational administration or consent of the department. This course examines the contemporary undergraduate college student in America. The topics of this course follow a logical progression from the choice of a college or university, a student's decision to remain or depart a given college or university, and the effects that college attendance has on students. This course will present a theoretical and practical literature regarding issues associated with today's college stu-

dent. The course also focuses on ways in which the attributes of the "typical" college student have changed and how the proliferation of non-traditional students on college campuses has presented new challenges for administrators, student affairs professionals, and faculty.

EDAD 6684 Teaching, Learning & Curriculum in Higher Education 3cr.
Perquisite: admission to doctoral program in educational administration or consent of the department. Advanced and in-depth study of the classic, contemporary, and emerging issues,ideas, concepts, theories and research that serve to define and expand the boundaries of the literatures related to the areas of teaching, learning and curriculum in higher and postsecondary education. Research and theory in these areas will be studied in ways that emphasize scholarly writing as well as concrete applications to the development of effective policy and practice in each area.

EDAD 6695 Internship In Higher Education 3cr.
This experiential course offers students individualized opportunities for observation and participation in administration in colleges and universities. Students spend a total of 150 hours per semester working in a structured, supervised setting learning about a particular aspect of higher education administration. Additionally, the students prepare academic products related to their work in the internship setting.

EDAD 6800 School Leadership 3cr.
School leadership theories with special emphasis on self-reflection on leadership potential and ethics.

EDAD 6810 School Law 3cr.
The evolution, principles, and practices of school law and court decisions, with emphasis on school law of Louisiana and policy implementation of legal decisions.

EDAD 6811 Advanced School Law 3cr.
Prerequisite: EDAD 6810 or consent of department. This course provides for the development of legal analytical skills for the solution of law-related problems. Current issues in school law will be examined. Students will be expected to conduct a legal study that solves some aspect of a school law problem.

EDAD 6815 Public School Finance 3cr.
A survey of the financial and business management in public education with special reference to the study of state and local sources of revenue, budgeting, and accounting procedures.

EDAD 6816 School-Based Management 3cr.
Prerequisite: EDFR 6700, EDAD 6800 and 6 additional hours of EDAD courses. School decision making models and management with emphasis on academic improvement, personnel, finance, technology, facilities, and maintenance.

EDAD 6820 Administration of School Personnel 3cr.
A study of personnel theory and management and the interrelationship of the individual the organization and the processes of education.

EDAD 6823 Collective Bargaining in Education 3cr.
A study of the collective bargaining process as it affects elementary secondary and higher educational institutions. Special attention will be given to teachers from kindergarten through grade 12. This course is not available for credit for graduate students in the economics program.

EDAD 6825 Administration of Pupil Personnel Services 3cr.
A study of the organization and administration of pupil services as they relate to the instructional program.

EDAD 6830 Educational Facility Planning 3cr.
Designed to provide educational administrators with opportunities to study problems in the planning and construction of educational facilities.

EDAD 6835 Computer Applications in Education 3cr.
This course will provide an overview of some of the current uses of microcomputers in education and an evaluation of educational software. Applications in the areas of administration, instruction, and pupil personnel services will be examined.

EDAD 6840 Organization and Governance of K-12 Schools 3cr.
The political relationships between schools, government, and society through a policy orientation.

EDAD 6845 School Community Relationships 3cr.
Implementation of effective school/community programs, including public relations and parent involvement.

EDAD 6850 Supervision of Instruction 3cr.
Theories and practices for instructional improvement, with emphasis on clinical supervision. Skills in classroom observation, conferencing and group facilitation.

EDAD 6851 Advanced Supervision Planning for Change 3cr.
Prerequisite: EDAD 6850 Educational change theory with emphasis on planning for curriculum innovation and instructional improvement.

EDAD 6855 The Supervision of Student Teaching 3cr.
Designed to assist students in the techniques of supervising student teachers.

EDAD 6858 Practicum in Clinical Supervision of Instruction 3cr.
Prerequisite: completion of 12 semester hours of School Administration courses including EDAD 6851 or consent of department. Supervisory experience is provided in an elementary or secondary school or in the central office of a school system under the direction and guidance of an accomplished supervisor. Seminars conferences field work written reports.

EDAD 6860 Elementary School Principalship 3cr.
Prerequisites: EDFR 6700, EDAD 6800 and 6 additional hours of EDAD courses. Theories skills and practices for elementary school building leadership and management.

EDAD 6865 Secondary School Principalship 3cr.
Prerequisite: EDFR 6700, EDAD 6800 and six additional hours of EDAD courses. Theories skills and practices for secondary school building leadership and management.

EDAD 6875 School Improvement 3cr.
Prerequisites: EDFR 6700 EDAD 6800 and six additional hours of EDAD courses. Review of the school effectiveness research with related topics including teacher effectiveness, principal effectiveness, and school improvement models.

EDAD 6890 Seminar in Educational Administration 3cr.
Prerequisite: consent of department. This course is designed to analyze in depth contemporary administrative problems of urban and suburban educational systems.

EDAD 6893 Practicum In School Leadership 3cr.
Administrative experience is provided in an elementary or secondary school under the direction and guidance of an accomplished principal.

EDAD 6895 Internship in School Leadership 3cr.
Prerequisite: EDFR 6700 EDAD 6800 and 12 additional hours of EDAD courses. Observation and participation in administration in schools central office special projects allied organizations or other clinical settings.

EDAD 6910 Strategic Approaches to Educational Administration 3cr.
Prerequisite: admission to the doctoral program in educational administration. The course provides an overview of the development and use of strategic approaches to planning and management in education. The analysis of case studies is used to build skills in strategic analysis and understanding of the role of strategic decisions in organizational change in all levels of education.

EDAD 6920 Advanced Theories in Educational Administration 3cr.
Prerequisite: admission to doctoral program in educational administration. An examination of administrative theories and their applicability to educational administration.

EDAD 6930 Leader Behavior in Educational Administration 3cr.
Prerequisite: admission to doctoral program in educational administration. Survey of theories of leadership and leader behavior in educational administration. Students will organize this knowledge into a set of generalizations based on reason and experimentation.

EDAD 6940 Power and Politics in Educational Administration 3cr.
Prerequisite: admission to UNO doctoral program in Educational Administration or consent of department. This course provides a theoretical overview of the relationship between power and politics as applied to education. It is concerned with the impact of policy and the influence of politics in educational organizations at both the macro and micro levels.

EDAD 6980 Independent Study in Educational Administration 1cr.
Prerequisite: advanced graduate standing with consent of department and major professor. Investigation of pertinent problems under the direction of a graduate faculty member. This course may be repeated but total credit may not exceed six semester hours. Section number will correspond with credit to be earned.

EDAD 6991 Selected Topics in Educational Administration 1cr.
Prerequisite: consent of department. The content of the course will be varied from semester to semester. Section number will correspond with credit to be earned. A total of six semester hours may be earned toward a degree.

EDAD 6992 Selected Topics in Educational Administration 1cr.
Prerequisite: consent of department. The content of the course will be varied from semester to semester. Section number will correspond with credit to be earned. A total of six semester hours may be earned toward a degree.

EDAD 6993 Selected Topics in Educational Administration 1cr.
Prerequisite: consent of department. The content of the course will be varied from semester to semester. Section number will correspond with credit to be earned. A total of six semester hours may be earned toward a degree.

EDAD 6997 Research Seminar in Educational Administration 3cr.
Prerequisite: admission to doctoral program in educational administration. This course will provide an overview of critical issues in the research design and analysis of data in educational administration. Current publications in educational administration will be reviewed and critiqued. Readings discussions and an analysis of educational methodologies and research in school administration will be critically examined.

EDAD 7000 Thesis Research 1cr.
To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned

EDAD 7040 Exam or Thesis Only 0cr.
No credit. Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

EDAD 7050 Dissertation Research 1cr.
Prerequisite: approval by the candidate's graduate committee. To be repeated for credit until the dissertation is accepted. Section number will correspond with credit to be earned.

Educational Foundations and Research

EDFR 4990 Special Topics in Education 3cr.
Prerequisite: consent of department and major professor. Topic will vary from semester to semester. This course may be repeated once for credit.

EDFR 6090 Independent Research in Educational Foundations 1cr.
(EDFR 6090 and EDGC 6090 are cross-listed) Prerequisites: consent of department and major professor. Independent research under the supervision of a graduate faculty member. The course may be repeated but total credit may not exceed six semester hours. Section number will correspond with credit to be earned.

EDFR 6400 History of American Education 3cr.
The historical evolvement of educational thought and practice in the United States from the colonial period to the present with attention given to significant educational movements and European influences.

EDFR 6420 Philosophy of American Education 3cr.
A study of trends in the philosophy of education with emphasis upon American education.

EDFR 6430 Psychological Foundations of Education 3cr.
Application of principles of human growth and development to education.

EDFR 6432 Analysis of Classroom Learning 3cr.
Application of learning principles and related research to classroom practice.

EDFR 6440 Socio-Cultural Foundations of Education 3cr.
An examination of the social factors affecting learning and education as well as the changing relationship between the schools and other societal institutions. The course is also designed to develop an understanding and an appreciation of the broader social forces that play a major role in current issues and concerns in education.

EDFR 6500 Contemporary Urban Education 3cr.
An understanding of the urbanization process in America and its effect upon education. Current problems that relate to education in metropolitan areas will be identified and analyzed.

EDFR 6620 Educational Measurement and Evaluation 3cr.
Introduction to concepts important to measurement and evaluation in education. Discussion of types of informal and formal assessment; the purpose of assessment; the development and use of valid reliable objective assessment instruments including paper-and-pencil tests and performance assessment; grading; the selection of standardized tests and the interpretation of test scores; and the use of assessment information.

EDFR 6675 Advanced Educational Program Evaluation 3cr.
(EDFR 6675 and EDCI 6675 are cross-listed) Prerequisites EDCI 6670 and EDFR 6710 and 6711 or consent of department. This course is designed to provide students with the research and evaluation

skills required to implement various program evaluation models. It is also intended to provide the skills necessary for effectively using the standards of the National Joint Committee on Standards for Program Evaluation as required by state certification guidelines.

EDFR 6700 Educational Research 3cr.
This course is an introductory research course for educators. It is designed to provide students with the basic information needed to understand the process of systematically researching a problem and to enable students to evaluate and interpret the research of others.

EDFR 6705 Quantitative and Qualitative Research Design 3cr.
Prerequisites: EDFR 6700 and admission to the M.A. program or a Ph.D. program in the College of Education or consent of department. Graduate students prepare to become researchers in this course. Epistemology and differences in research paradigms are reviewed. The designs available to researchers in quantitative and qualitative traditions are detailed. Introduction to the process of developing research proposals.

EDFR 6710 Descriptive Statistics and Inferential Hypothesis Testing 3cr.
Corequisite or Prerequisite: EDFR 6705 or consent of department. An introduction to basic statistics for students who plan to conduct research using empirical methods. Topics include descriptive statistics; probability in sampling; hypothesis testing inferential statistics; and non-parametric statistics.

EDFR 6715 Introduction to Qualitative Research Methods 3cr.
Prerequisite: EDFR 6705 or consent of department. This course is designed to introduce graduate students to the nature and uses of qualitative research methods in education, with particular emphasis on methods of data collection. Students will be expected to engage in field research experiences.

EDFR 6720 Applied Regression and Analysis of Covariance 3cr.
Prerequisites: EDFR 6700 and 6710 or consent of department. Applied knowledge of advanced statistical methods. Topics include multiple regression, analysis of variance following multiple comparison tests; analysis of covariance; and log linear models.

EDFR 6721 Qualitative Research Data Analysis 3cr.
Prerequisites: EDFR 6705 and 6715 or consent of department. This course focuses on methods of data analysis, presentation of results, issues of validity, and the role of the researcher in qualitative research.

EDFR 6725 Multivariate Statistics and Covariance Structure Analysis 3cr.
Prerequisite: EDFR 6700, 6710, and 6720, or consent of department. Sophisticated multivariate methods of analyzing complex relationships among many variables. Topics include matrix algebra; multivariate analysis of variance; multivariate analysis of covariance; discriminant function analysis; factor analysis; cluster analysis; and path analysis.

EDFR 6726 Advanced Educational Research Models 3cr.
Prerequisite: EDFR 6725. The course presents three advanced models employed in contemporary educational research: latent trait measurement generalizability theory and confirmatory covariance structure analysis. The purposes of these models are presented and use of computer software that implements the methods is explained.

EDFR 6728 Quasi-Experimental Designs in Educational Research and Evaluation 3cr.
Prerequisite: EDFR 6720 or consent of department. This course reviews theories of causation and validity in quantitative social science methodology. Varieties of comparison designs and post-hoc analyses will be presented. Appropriate statistical analyses will be discussed.

EDFR 6730 Research Design in Education 3cr.
Prerequisite: EDFR 6720 and successful completion of the doctoral qualifying examination, or consent of department. This course presents the purpose and principles of quantitative research design. Discussion emphasizes experimental, quasi-experimental, and non-experimental designs. Appropriate statistical analyses for these designs are presented.

EDFR 6731 Qualitative Research Design and Writing 3cr.
Prerequisites: EDFR 6705, EDFR 6715, and EDFR 6721, or consent of department. This course addresses the process of qualitative research design, the various traditions within qualitative research, selected methodological issues, and writing up research results.

EDFR 6740 Psychometric Theory and Procedures in Educational Assessment Instruments 3cr.
Prerequisites: EDFR 6720 and Educational Leadership and Foundations 6620 or consent of department. This course presents the theory and practice in the construction of educational assessment instruments. Psychometric theory will be introduced and students are expected to demonstrate all phases of the test development process for norm- and criterion-referenced measurement approaches. Appropriate statistical procedures for psychometric analysis will be presented.

EDFR 6750 Computer Applications in Education 3cr.
This course will provide an overview of some of the current uses of microcomputers in education and an evaluation of educational software. Applications in the areas of administration, instruction, and pupil personnel services will be examined.

EDFR 6990 Independent Study in Education 1cr.
Prerequisites: consent of department and major professor. Independent study under the direction of a graduate faculty member. This course may be repeated but the total credit may not exceed six semester hours. Section number will correspond with credit to be earned.

EDFR 6991 Practicum in Educational Evaluation 3cr.
(EDFR 6991and EDCI 6991 are cross listed). Prerequisite: EDCI 6675 EDFR 6675 or consent of department. This course is intended to provide students with the opportunity to practice in an actual school setting the program evaluation skills learned in previous courses. The practicum will be conducted under the supervision of a graduate faculty member who is an experienced evaluator.

EDFR 6993 Special Topics in Educational Research 1cr.
Prerequisite: consent of department. Topic will vary from semester to semester. Course may be repeated for a maximum of nine semester hours credit. Section number will correspond with credit to be earned.

EDFR 6995 Doctoral Seminar in Education 1cr.
Prerequisite: open only to doctoral students in residence. Each doctoral student is expected to attend seminar during each semester of required residence. The seminar will consider topics of interest from the major areas of professional education. May be repeated for credit.

EDFR 7000 Thesis Research 1cr.
To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

EDFR 7040 Examination or Thesis Only 0cr.
No credit. Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students

in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

EDFR 7050 Dissertation Research 1cr.
Prerequisite: approval by the candidate's graduate committee. To be repeated for credit until the dissertation is accepted. Section number will correspond with credit to be earned.

Electrical Engineering

ENEE 1001 Introduction to Information Systems and Technology 3cr.
Introduction to three foundational disciplines of the information technology age: electrical and computer engineering, computer science, and management information systems (MIS). Students will be provided with an overview of the three disciplines and how they interact to form a new discipline-information systems and technology. This course will be cross-listed with MANG 1001 and CSCI 1001. Students taking ENEE 1001 cannot receive credit for MANG 1001 and CSCI 1001. Also, this course may not be used to satisfy UNO's general degree requirement for computer literacy and may not be taken for credit in the Electrical Engineering program. Prerequisite: None

ENEE 2500 Basic Electrical Circuits 3cr.
Prerequisite: Mathematics 2108. Offered each semester and summer session. Introduction to basic electrical circuit analysis. This course carries no degree credit in the electrical engineering curriculum.

ENEE 2510 Circuits Laboratory 1cr.
Prerequisite: Concurrent registration in ENEE 2551 An introduction to electrical measurements, instruments, and circuit phenomena complementing the lecture course ENEE 2551. Three hours of laboratory. Note that this laboratory must be taken concurrently with the course ENEE 2551.

ENEE 2550 Circuits I 3cr.
Prerequisites: MATH 2111 (or MATH 2108). Introduction to linear, time-invariant, and lumped circuits. Kirchhoff's laws, DC analysis of resistive circuits, and transient analysis of RLC circuits.

ENEE 2551 Circuits II 3cr.
Prerequisite: ENEE 2550, PHYS 1062 and concurrent registration in ENEE 2510. AC steady-state analysis of RLC circuits and frequency response; three-phase circuits and transformers; Laplace transform methods.

ENEE 2582 Digital System Design 3cr.
Prerequisite: CSCI 1205, credit or registration in ENEE 2551, concurrent registration in ENEE 2586. The characterization and design of digital, logic, and switching networks with emphasis on integrated circuits.

ENEE 2586 Logic Circuits Laboratory 1cr.
Prerequisite: Concurrent registration in ENEE 2582. Selected experiments examining logic devices and circuits, and including a final design project, to accompany and complement the lecture course ENEE 2582. Three hours of laboratory.

ENEE 3091 Senior Electrical Engineering Design Project 1cr.
Prerequisite: To be taken the semester immediately before the final semester and with approval of the Department Chair. Team study and evolution of a project involving engineering design in electrical engineering with emphasis on the initialization of the design project. Comprehensive written and oral reports are given.

ENEE 3092 Senior Electrical Engineering Design Project 3cr.
Prerequisite: ENEE 3091. To be taken in the final semester before graduation and with the approval of the Department Chairman. Team study and evolution of a project, involving engineering design in electrical engineering with emphasis on the implementation of the design project. Comprehensive written and oral reports are required.

ENEE 3093 Special Problems in Electrical Engineering 1cr.
Prerequisite: Senior standing in engineering. Seminar, independent study, and research participation in electrical engineering.

ENEE 3094 Special Problems in Electrical Engineering 1cr.
Prerequisite: Senior standing in engineering. Seminar, independent study, and research participation in electrical engineering.

ENEE 3095 Special Problems in Electrical Engineering 1cr.
Prerequisite: Senior standing in engineering. Seminar, independent study, and research participation in electrical engineering.

ENEE 3501 Basic Electrical Machinery 3cr.
Prerequisite: ENEE 2500. Review of electric circuit theory and its application to electro-mechanical energy conversion, including the operation of dc, induction, and synchronous machines and transformers. This course carries no degree credit in the electrical engineering curriculum.

ENEE 3511 Energy Conversion Laboratory 1cr.
Prerequisite: Concurrent registration in ENEE 3540. Selected experiments to accompany the lecture course ENEE 3540. This laboratory must be taken at the same time as ENEE 3540. Three hours of laboratory.

ENEE 3512 Microprocessor Design Lab 1cr.
Co-requisite: Concurrent registration in ENEE 3582. Selected experiments in assembly language programming and digital design using microprocessors.

ENEE 3514 Computer Architecture Laboratory 1cr.
Co-requisite: Concurrent registration in ENEE 3584. Selected experiments examining programmable logic, VHDL and logic synthesis, and including a final design project, to accompany and complement the lecture course ENEE 3584. Three hours of laboratory.

ENEE 3516 Engineering Electronics Laboratory I 1cr.
Prerequisite: Concurrent registration in ENEE 3540. Selected experiments to accompany the lecture course ENEE 3540. This laboratory must be taken at the same time as ENEE 3540. Three hours of laboratory.

ENEE 3517 Engineering Electronics Laboratory II 1cr.
Prerequisite: Concurrent registration in ENEE 3543. Selected experiments to accompany the lecture course ENEE 3543. This laboratory must be taken at the same time as ENEE 3543. Three hours of laboratory.

ENEE 3518 Electrical Engineering Laboratory 1cr.
Offered each semester and summer session. Prerequisite: credit or registration in ENEE 3501. A laboratory in basic electronics, instrumentation, and electric power devices for students not majoring in electrical engineering. Three hours of laboratory.

ENEE 3521 Electric Machinery 3cr.
Prerequisite: ENEE 2551. Introduction to the theory of electromechanical energy conversion with special application to the theory and operation of electrical machines and machine control systems.

ENEE 3522 Electrical Power Systems 3cr.
Prerequisite: ENEE 2551. Introduction to industrial and utilities electric power systems, poly-phase systems, fault conditions, per-unit values, and the method of symmetrical components.

ENEE 3530 Continuous and Discrete Signal and System Analysis 3cr.
Prerequisite: ENEE 2551 and MATH 2511 and 2221. Fundamental techniques for the analysis of electrical and electronic signals and systems are introduced and include: signal representation, Fourier series, Fourier transform, Laplace transform, discrete Fourier transform, and the Z-transform. Emphasis will be placed on the application of the above techniques to engineering problems.

ENEE 3533 Classical Control System Design 3cr.
Prerequisites: ENEE 3530. Design of control systems using classical frequency response and Laplace transforms techniques; analysis and design of servo-systems using Nyquist, Bode, and root-locus diagrams; design criteria, system stability, frequency, and time response. State variable feedback.

ENEE 3535 Communication System Design 3cr.
Prerequisites: ENEE 3530 and concurrent registration in ENEE 3574. Design, characterization, and selection of communication methods and systems.

ENEE 3540 Engineering Electronics 3cr.
Prerequisite: ENEE 2551 and concurrent registration in ENEE 3516. The characteristics of modern solid-state non-linear and active devices, representative circuit models, and the analysis and design of typical circuits using these devices. The accompanying laboratory, ENEE 3516, must be taken with this course.

ENEE 3543 Engineering Electronic Systems 3cr.
Prerequisite: ENEE 3540 and concurrent registration in ENEE 3517. Use of solid-state devices as basic system building blocks. Multistage amplifiers, feedback amplifiers, stability and oscillators, analog systems, power circuits and systems. The accompanying laboratory, ENEE 3517, must be taken with this course.

ENEE 3547 Digital Integrated Circuit Design 3cr.
Prerequisites: ENEE 2582, 2586, and 3540. Study of characteristics of bipolar and CMOS logic gates and design techniques for digital integrated circuits.

ENEE 3560 Engineering Electromagnetics I 3cr.
Offered each semester. Prerequisites: MATH 2115, MATH 2221, and ENEE 2551. Electrostatics and magnetostatics and their applications to analysis and design in various fields of electrical engineering. Formulation of Maxwell's equation for electromagnetic fields in free space and in material media. The wave equation and plane-wave propagation.

ENEE 3561 Engineering Electromagnetics II 3cr.
Prerequisite: ENEE 3560. Maxwell's equations for time-varying electromagnetic fields and their applications; wave propagation through different media; design of transmission lines and waveguides; introduction to electromagnetic radiation; and antennas.

ENEE 3572 Probabilistic Methods of Signal and System Analysis 3cr.
Prerequisites: ENEE 3530. The fundamentals of probability theory are introduced. Application of probability theory to signal and system analysis is considered and includes correlation functions, spectral density, linear system response to random input signals, and system parameter optimization.

ENEE 3574 Communication Systems Design Laboratory 1cr.
Prerequisites: concurrent registration in ENEE 3535. Selected experiments examining fundamental performance and design concepts of modulation systems, including a design project. Three hours of laboratory.

ENEE 3575 Voice Video Telecommunications System 3cr.
Prerequisites: CSCI 1201, MATH 2108, and 2111, or consent of the department. Fundamental concepts of telecommunication voice and video systems are presented including telephony and video fundamentals, standards organizations and regulations, subscriber loop, trunk and feeder link technology, private branch exchange and central office techniques, voice digitization methods, modulation and multiplexing schemes, signal transport methods, and video compression approaches. Additional topics cover current trends in telecommunications.

ENEE 3582 Digital Design Using Microcomputers 3cr.
Prerequisite: ENEE 2582, ENEE 2586, and concurrent registration in ENEE 3512. The design of microcomputer based systems including both hardware and software considerations.

ENEE 3583 Computer System Design I 3cr.
(ENEE 3583 and CSCI 4302 are cross-listed) Prerequisites: Credit or registration in ENEE 3582 and ENEE 3512, or credit in CSCI 3301 and 3401. The design process of digital computer systems is studied from the instruction set level, system architecture level, and digital logic level. Topics include machine organization, register transfer notation, processor design, memory design, and input/output considerations. Includes semester project.

ENEE 3584 Computer Systems Design II 3cr.
Prerequisites: ENEE 3583 and concurrent registration in ENEE 3514. The design and evaluation of contemporary computer systems are analyzed to compare the performance of different architectures. Topics include performance metrics, computer arithmetic, pipelining, memory hierarchies, and multiprocessor systems.

ENEE 3587 Microcomputer Interfacing 3cr.
Prerequisites: ENEE 3582. The design of microcomputer based systems including both hardware and software considerations. Includes laboratory work and a semester project. Design projects with both written and oral reports will be required.

ENEE 3900 Senior Honors Thesis 1-6cr.
Prerequisites: admission to the Honors Program and consent of the director of the Honors Program and the chair of the department. Senior-level research and/or design project in electrical engineering. Thesis and oral examination required. May be repeated for credit with total hours no to exceed six.

ENEE 4096 Special Topics in Electrical Engineering 3cr.
Prerequisite: junior standing in engineering. Courses may be taken for credit three times. No student may earn more than nine hours degree credit in courses ENEE 4096 and 4097.

ENEE 4097 Special Topics in Electrical Engineering 3cr.
Prerequisite: junior standing in engineering. Courses may be taken for credit three times. No student may earn more than nine hours degree credit in courses ENEE 4096 and 4097.

ENEE 4131 Reliability, Availability, and Maintenance of Engineering Systems 3cr.
(NAME 4131, ENME 4734, and ENEE 4131 are cross-listed) Prerequisite: MATH 2115. Review of probability and statistics; analytical stochastic models for component and system failures; strategies for inspection, maintenance, repair and replacement. Introduction to fault-tree and event-tree analysis; frequency and duration techniques; Markov models; and case studies.

ENEE 4132 Reliability in Engineering Design 3cr.
Prerequisite: ENME 3020 or consent of department. Probabilistic approach to design and analysis of engineering problems. Statistical methods include point and interval estimation, tests of hypotheses, functions of random variables, and reliability analysis.

ENEE 4522 Power System Planning and Design 3cr.
Prerequisite: ENEE 3522. Theory and techniques for modeling and

analyzing large power systems, including per unit system matrix methods, load flow methods, and optimal economic dispatch determination. Practical planning, design, and operational studies of large power systems. Transmission network design and generator dispatching considerations in large power systems. A design project with a written and oral report will be required.

ENEE 4526 Protective Relaying of Power Systems 3cr.
Prerequisite: ENEE 3522. Protection of power system components like transmission lines, transformers, radial feeders, generators, and motors from faults and lightning. Differential protection of transformers, generator windings, and transmission lines. Distance protection of transmission lines. Relay coordination for radial feeders. Carrier protection. Use of current and voltage transformers.

ENEE 4533 Digital Control System Design 3cr.
Prerequisite: ENEE 3533. Design and analysis of digital control systems using transform techniques and state-space methods.

ENEE 4534 Process Control Systems 3cr.
(ENEE 4534 and ENME 4753 are cross-listed) Prerequisites: ENEE 3533 or ENME 3020. A study of contemporary automatic control methods for continuous industrial processes. Topics include characterization of typical process dynamics, plant identification, parameter estimation, controller tuning techniques, and industrial process instrumentation applications.

ENEE 4535 Introduction to Digital Signal Processing 3cr.
Prerequisite: ENEE 3530. Fundamental concepts of digital processing are developed and include signal representation; Fourier series; z-transforms; discrete Fourier series; discrete random signals; data window functions; applications of DFT to convolution, auto and cross-correlation and power and energy spectrum distribution estimation; digital filter design; homomorphic signal processing.

ENEE 4542 Electronic Devices for Integrated Circuits 3cr.
Prerequisites: ENEE 3540 and PHYS 2064. Study of operating principles of modern electronic devices including p-n junctions bipolar junction transistors (BJTs) and metal-oxide-semiconductor field-effect transistors (MOSFETs). The device models are presented using the parameters and models in PSpice for integrated circuit design and analysis. This course provides a foundation for understanding the basics of modern electronic device technology.

ENEE 4543 Power Electronics and Drives 3cr.
Prerequisites: ENEE 3521 and 3540. Introduction to semiconductor devices, circuits with diodes and power switching devices, controlled rectifiers, dc choppers, dc and ac motor drives including armature-controlled dc motor drives, inverterfed induction and synchronous motor drives.

ENEE 4544 Radio Frequency Circuit Design 3cr.
Prerequisites: ENEE 3535 and 3540. Design of high frequency radio circuits and their differences compared to low frequency circuits are discussed. Discussion of s paramenter, Smith Charts, Noise Figure, amplifier stability, transmission lines, phased locked loops, and impedance matching techniques.

ENEE 4545 Introduction to VLSI Design 3cr.
Prerequisites: ENEE 2582, 2586, and 3540. This course introduces fundamental principles of VLSI circuit design and covers the basic building blocks of large-scale digital integrated circuits/systems. Systematic design methods for modern digital VLSI circuits will be studied. Students will learn hands-on design methods using the VLSI CAD tools.

ENEE 4554 Analog and Digital Filter Design 3cr.
Prerequisite: ENEE 3530. The synthesis of analog and digital filters; elementary one port synthesis; Darlington filter synthesis; phase correction; synthesis of Real-part, magnitude, and phase; realization of recursive and nonrecursive digital filters; windowing; parallel, cascade, and direct forms of digital filters; digital hardware implementation.

ENEE 4562 Engineering Optics 3cr.
Optical fundamentals for engineering. Waves. Diffraction. Optical waveguides. Interferometry and Holography.

ENEE 4570 Audio Engineering 3cr.
Prerequisite: ENEE 3530 3540 or consent of department. Analog and Digital Recording and Reproduction Techniques and Systems are examined, and include microphone design, selection and application; Mixing and Recording Equipment Design and Techniques; Reproduction System Elements, including Disc Reproduction, Pre-Amplification, Power Amplification, Tuner, Tape Recording, Signal Processors and speakers.

ENEE 4572 Advanced Communication System Design 4cr.
Prerequisites: ENEE 3535 and 3572. Analysis of analog and digital modulation techniques in the presence of noise; receiver noise models, facsimile systems, signal vector theory, and introduction to information theory. Three hours of lecture and three hours of laboratory.

ENEE 4575 Data & Computer Communications 3cr.
Prerequisites: CSCI 1201 and MATH 2111. Fundamental concepts of data and computer communications are presented including the open system interconnection (OSI) model, modems, local. metropolitan, and wide area networks (LAN, MAN, WAN), and high speed LANs, packets switching, Broadband ISDN, frame relay, asynchronous transfer mode(ATM), and the Internet protocol.

ENEE 6001 Electrical Engineering Graduate Seminar 0cr.
EE Graduate Seminar is a noncredit course for master and Ph.D. students in Electrical Engineering to complete as part of the graduate program. It is organized as a weekly seminar to help graduate students give effective presentations, which is critical to have successful Electrical Engineering professional careers. Students registered for this course and faculty members invited to participate in the seminar give talks similar to oral presentations in national and international conferences. The topic of each presentation is research-oriented and the course evaluation is based on pass/fail criterion.

ENEE 6095 Advanced Electrical Engineering Problems 1-6cr.
Offered each semester and summer session. Individual projects in selected fields of electrical engineering. Independent work under the direction of a faculty member on a subject of mutual interest. Student must find faculty sponsor. A written report will usually be required. Course may be repeated for credit but no more than a total of six credit hours may be applied toward a degree. Section number will correspond with credit to be earned.

ENEE 6096 Advanced Special Topics in Electrical Engineering 3cr.
Offered each semester and summer session. Prerequisite: consent of department. Special lectures or independent study on subjects of current interest in the various fields of electrical engineering. May be taken for credit three times. No student may earn more than a total of nine hours of degree credit in courses ENEE 4096, 4097, 6096, 6097, and 6098.

ENEE 6097 Advanced Special Topics in Electrical Engineering 3cr.
Offered each semester and summer session. Prerequisite: consent of department. Special lectures or independent study on subjects of current interest in the various fields of electrical engineering. May be taken for credit three times. No student may earn more than a

total of nine hours of degree credit in courses ENEE 4096, 4097, 6096, 6097, and 6098.

ENEE 6098 Advanced Special Topics in Electrical Engineering 3cr.
Offered each semester and summer session. Prerequisite: consent of department. Special lectures or independent study on subjects of current interest in the various fields of electrical engineering. May be taken for credit three times. No student may earn more than a total of nine hours of degree credit in courses ENEE 4096, 4097, 6096, 6097, and 6098.

ENEE 6521 High Voltage Engineering 3cr.
Prerequisites: ENEE 3521 and 3522 or consent of department. Design considerations of high voltage transmission lines, electrical characteristics, electrostatic and electromagnetic theory and effects, corona phenomena, radio noise from transmission lines, audible noise, insulation coordination, and switching surges. Discussions of recent results on biological effects.

ENEE 6522 Computer Aided Analysis of Large Power Systems 3cr.
Prerequisite: ENEE 4522. Digital computer modeling and analysis techniques of large interconnected power systems. On-line power system control.

ENEE 6523 Electric Machines and Drives 3cr.
Prerequisite: ENEE 3521. Modeling of induction, synchronous, brushless permanent-magnet, and reluctance motor drives; modeling of machines in phase as well as in transformed variables; vector control of AC machines; current controllers; encoders; application characteristics.

ENEE 6525 Optimization and Control Methods in Power System Operations 3cr.
Prerequisite: ENEE 3522. Topics selected from power generation, operation and control, including economic dispatch, unit commitment, composite generation cost, hydrothermal coordination, generation control, interchange evaluation, system security, and state estimation.

ENEE 6530 Linear Systems 3cr.
Prerequisite: ENEE 3533. A study of the state equation method of system modeling. Topics include stability, controllability, observability, and realizability.

ENEE 6531 Advanced Control Theory 3cr.
Prerequisite: ENEE 6530. A study of advanced methods of analysis and synthesis of automatic control systems; continuous and discrete-time systems; control constraints; and estimation of optimum control in the presence of noise.

ENEE 6532 Adaptive Control 3cr.
Prerequisites: Electrical Engineering 6530. System identification and the control problem. Stability theory of dynamical systems. The design of adaptive observers. Adaptive control using the indirect approach. Applications of adaptive control.

ENEE 6533 Advanced Random Variables and Stochastic Processes 3cr.
Prerequisites: ENEE 3572. Engineering applications of probability theory. Problems on events, independence, random variables, distribution and density functions, expectations, and characteristic functions. Dependence, correlation, and regression; multi-variate Gaussian distribution. Stochastic processes, stationarity, ergodicity, correlation functions, special densities, random inputs to linear systems; Gaussian processes.

ENEE 6534 Information Theory and Applications 3cr.
Prerequisite: ENEE 4572. A study of the mathematical theory of communications. Noise and channel information rate. Theoretical and practical limits on channel capacity for various modulation schemes.

ENEE 6535 Adaptive Filtering 3cr.
Prerequisite: ENEE 6533. A study of linear optimum filtering including Wiener Filters and Kalman Filters; linear FIR adaptive filtering using method of steepest descent and recursive least squares; fast recursive algorithms and fast transversal filters.

ENEE 6536 Advanced Digital Signal Processing with Speech Applications 3cr.
Prerequisite: ENEE 4535. Advanced topics in digital signal processing including: short- and long-term data processing, linear prediction analysis, cepstral analysis, coding and feature enhancement, speech recognition, dynamic time warping, hidden Markov model and time-adaptive processing.

ENEE 6537 Estimation and Kalman Filtering 3cr.
Prerequisite: ENEE 6530 and 6533. Review of matrix algebra probability and random processes; maximum likelihood estimation; maximum a posteriori estimation; least squares estimation; minimum mean square error estimation; unibiasedness efficiency and consistency; Kalman filter; linear smoothing; nonlinear estimation; elements of adaptive estimation.

ENEE 6538 Signal Detection 3cr.
Prerequisite: ENEE 6533. Neyman-Pearson hypothesis testing; Bayes tests; minimax tests; sequential probability ratio test; optimal and locally optimum detectors; noise models for detection; detection of known signals; detection of random signals; performance evaluation of detectors.

ENEE 6540 Compound Semiconductor Devices 3cr.
Prerequisites: credit or concurrent registration in ENEE 4542. Properties of III-V and II-VI compound semiconductors, operating principles of compound semiconductor devices including transferred electron devices, heterostructure field effect transistors, heterostructure bipolar transistors, and tunneling devices.

ENEE 6541 Semiconductor Device Modeling 3cr.
Prerequisite: ENEE 4542. Modeling of semiconductor devices, modeling of equilibrium and non-equilibrium transport phenomena of charge carriers in semiconductors and semiconductor devices, Monte Carlo simulation, balance equations, and numerical simulation of submicron devices using balance equations and Monte Carlo method.

ENEE 6543 Transport Theory in Semiconductors 3cr.
Prerequisites: credit or concurrent registration in ENEE 4542. A study of kinetic and hydrodynamic transport theories in semiconductors and devices. Scattering processes in semiconductors, and equilibrium and non-equilibrium transport models including the drift-diffusion theory, hydrodynamic transport model, and Boltzmann transport equation.

ENEE 6544 Theory of Semiconductors and Semiconductor Devices 3cr.
Prerequisites: credit or concurrent registration in ENEE 4542. Quantum mechanics of semiconductors, energy band theory, semiconductor statistics, electronic and optical properties of semiconductors, and their applications to semiconductor devices.

ENEE 6551 Network Synthesis 3cr.
Prerequisite: ENEE 3551 or consent of department. Introduction of Brune's positive real functions, properties and testing of positive real functions, driving-point synthesis, transfer-function synthesis, approximation theory, and topics in N-port and N-terminal network synthesis.

ENEE 6552 Network Synthesis 3cr.
Prerequisite: ENEE 3551 or consent of department. Introduction of Brune's positive real functions, properties and testing of positive real functions, driving-point synthesis, transfer-function synthesis approximation theory and topics in N-port and N-terminal network synthesis.

ENEE 6553 Advanced Computer-Aided Network Design 3cr.
Advanced circuit analytic design techniques utilizing a digital computer. Time-domain and non-linear sensitivity analysis. Adjoint techniques. Circuit optimization steady-state analysis. Averaging methods. Decomposition and tearing algorithms. Digital circuit simulation.

ENEE 6554 Advanced Digital and Analog Filter Design 3cr.
Prerequisite: ENEE 4554. realizability of Passive Networks; Orchards Conjecture; finite word length effects in digital filters multiplier coefficient sensitivity; wave digital filters and digital ladder filters; noise scaling limit cycle oscillations; block digital filters; multirate digital filters.

ENEE 6563 Fourier Optics 3cr.
Prerequisite: Graduate standing in engineering or science or consent of department. Analysis of Fourier transformations and linear systems theory using optical processing, image formation, and holography.

ENEE 6564 Polarization Optics 3cr.
Prerequisite: ENEE 3560 or equivalent. Theory and applications of polarization optics; various mathematical representations of the state of polarization of light and the transformation of polarization by different optical elements; operating principles of polarizing optical devices; instruments for measurement of the state of polarization of light (ellipsometers and photopolarimeters) and their numerous applications in engineering, surface science, and materials research.

ENEE 6565 Introduction to Lasers 3cr.
Prerequisite: A junior/senior-level calculus-based course in electromagnetics or optics and some familiarity with the relevant modern physics. Exception may be granted with the consent of the department. Review of the basic concepts of wave optics (propagation, diffraction, interference, coherence, and polarization), matrix ray optics, Gaussian beam optics, optical resonators, transitions and rate equations for atoms in blackbody and monochromatic radiation fields, homogeneous and inhomogeneous broadening of atomic or molecular transitions, the small-signal gain coefficient, laser amplifiers, gain saturation, laser single-mode and multi-mode oscillation, pulsed operation by Q-switching and mode locking.

ENEE 6566 Optical Communications 3cr.
Prerequisite: A B.S. degree in Engineering Mathematics or Physics or consent of the department. The methods and techniques employed in optical communications. Optical sources and photodetectors, modulation and reception schemes, and characteristic models of both fiber optic and atmospheric channels will be examined. Overall optical system performance analysis will also be addressed.

ENEE 6567 Semiconductor Optoelectronics 3cr.
Prerequisite: ENEE 3560 and 4540. An introduction to optoelectronic communication and sensing systems and components. A study of the fundamentals of optical generation, detection, modulation in semiconductor lasers, detectors and the modulators, transmission and processing of optical beam signals in dielectric waveguides and optical fiber, and fiber optic sensors.

ENEE 6570 Optimization Techniques in Engineering 3cr.
Prerequisite: A B.S. degree in engineering mathematics or physics or consent of department. Introduction to the formulation of engineering optimization problems. The use of nonlinear optimization techniques such as Steepest Descent, Newton-Raphson, and Conjugate Gradients and Constrained Nonlinear Optimization Techniques in engineering problems. Geometric programming in engineering problems.

ENEE 6575 Advanced Telecommunications Systems Design 3cr.
Prerequisite: BS degree in Engineering or consent of the department. The objective of this course is to provide graduate level engineering students with a detailed understanding of the design techniques and analyses associated with the design of digital data and voice systems employing microwave satellite cellular and PCS technologies. The course also investigates the fundamentals and design approaches for telecommunications networking hierarchies (ATM, SONET) and specialized architectures used in local area, wide area, and global networks.

ENEE 6581 Introduction to Digital Image Processing 3cr.
Prerequisite: ENEE 4535. Introduction to digital image processing techniques for enhancement, compression, restoration, reconstruction, and analysis. 2-D signals and systems, sampling and scanning, random fields, discrete cosine transform, discrete Karhunen-Loeve transform, gray scale transformations, linear, ranked order, and morphological filters, human vision, printing and display of images, entropy-based compression, vector quantization, transform coding, predictive coding, image degradation models, Weiner filter, constrained deconvolution, edge detection.

ENEE 6582 Computer Vision 3cr.
Prerequisite: B.S. in Engineering, Math, or Physics, or consent of the department. Basic fundamentals and techniques of computer vision, including image analysis, image segmentation, edge detection, and determination of shape from shading.

ENEE 6583 Neural Networks 3cr.
Prerequisite: B.S. in Engineering, Math, or Physics, or consent of the department. Introduction to the ideas and techniques used in artificial neural network models.

ENEE 6585 Wireless Sensor Networks 3cr.
Review of current wireless communication standards and protocols; system architecture of wireless sensor networks, including physical, medium access control (MAC), and network layers; algorithm design and practical implementation issues for wireless sensor networks applications.

ENEE 6588 Optical Computing 3cr.
Prerequisite: Graduate standing in engineering or science of consent of department. The topics include basic mathematical operations, matrix-vector and matrix-matrix multiplications, spatial light modulators, waveguides, and symbolic substitution.

Engineering

ENGR 1000 Introduction to Engineering 1cr.
Prerequisite: credit for or currently enrolled in DEVM 0107. An in-depth orientation in the various areas of engineering and related fields of employment. The course also provides an introduction to problem-solving techniques, ethics, communications skills, and engineering study techniques.

ENGR 1001 Introduction to Engineering 3cr.
Prerequisite: MATH 1126. A project-based introduction to mechanical, electrical, civil, environmental, and naval architecture and marine engineering. The course also provides an introduction to problem-solving techniques, ethics, communications skills, and engineering study techniques.

ENGR 3090 Senior Seminar 1cr.
Lectures on current topics in engineering by members of the fac-

ulty, engineers from industry, researchers, and senior and graduate students in engineering. The role of the engineer in today's society, professional ethics, and professional registration; OSHA; technical societies.

ENGR 4710 Legal Aspects Regarding Engineering in the Oil and Gas Industry 3cr.
Prerequisite: consent of college. This course is designed to help the engineer achieve a basic understanding of policy considerations in mineral law systems calling special attention to the Louisiana property concept will be studied in order to give the engineer a background against which to study and better understand the Mineral Code and its provisions. Fundamental laws and Federal OCS oil and gas regulation and compliance requirements will also be covered.

ENGR 7000 Thesis Research 1-9cr.
To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

ENGR 7040 Examination or Thesis Only 0cr.
No credit. Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduate requirements.

Engineering and Applied Sciences

ENAS 7025 Engineering and Applied Science Research Seminar 1cr.
Students and faculty will present and discuss research activities and/or current topics in the field. Invited guest speakers will also participate. May be offered jointly by two or more departments in the engineering and applied science doctoral program or by any one of the participating departments in the College of Engineering and the College of Sciences. May not be applied for credit toward the Ph.D. program.

ENAS 7040 Examination Or Thesis Only 0cr.
Open to students in a thesis program who have only (other than applied for degree) the final typing and acceptance by the Graduate School of their thesis or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduate requirements.

ENAS 7050 Dissertation Research 1-9cr.
Offered each semester. Section number will correspond with credit to be earned. To be repeated for credit until dissertation is accepted.

Engineering Management

ENMG 4130 Change Management 3cr.
Prerequisite: none except senior or graduate status and consent of department. This course is designed to provide techniques and principles as to how to introduce change into organizations. Emphasis will be on the three phases of change; initiating change, implementing change, and institutionalizing change. Means of applying change principles will be developed through the use of templates and worksheets.

ENMG 4471 Quality Management 3cr.
(MANG 4471 and ENMG 4471 are cross-listed) Prerequisite: MANG 3402 or consent of department. May not receive graduate credit for both MANG/ENMG 4471 and MANG 6471. Describes the basic concepts of quality planning and quality control. Discussion on quality improvement plans, Deming philosophy, and Juran's quality trilogy, the Deming prize and Baldrige award for quality excellence, and quality circles. Study of the statistical approach to quality control and the use of control charts and other quality control tools. Case studies from around the world on the implementation of total quality management.

ENMG 6090 Internship in Engineering Management 1cr.
Prerequisite: Consent of department. Permits students to be engaged in at least 10 hours per week at the site of an assigned participating organization that directs interns in specific projects relating to engineering management. Students wishing to take this course should apply one semester in advance since enrollment is limited by internship availability.

ENMG 6095 Engineering Management Capstone Project 3cr.
Prerequisite: Consent of department. Practical experience working in a group on a real-world engineering project. May involve a special project from within the student's own work environment or an individually designed work experience. In either instance, the project will culminate in a formal report presented and defended before the faculty and other interested parties.

ENMG 6096 Special Topics in Engineering Management 1-3cr.
Prerequisite: Consent of program. Special lectures or independent study on subjects of current interest in the various fields of engineering management. No student may earn more than a total of nine hours of degree credit in these courses.

ENMG 6097 Special Topics in Engineering Management 1-3cr.
Prerequisite: Consent of program. Special lectures or independent study on subjects of current interest in the various fields of engineering management. No student may earn more than a total of nine hours of degree credit in these courses.

ENMG 6098 Special Topics in Engineering Management 1-3cr.
Prerequisite: Consent of program. Special lectures or independent study on subjects of current interest in the various fields of engineering management. No student may earn more than a total of nine hours of degree credit in these courses.

ENMG 6101 Engineering Management 1 3cr.
Prerequisite: Baccalaureate degree in Engineering or consent of department. An overview of the basic tools for management of a quality engineering project or group. Includes principles of Finance and Accounting, use of Management Information Systems in analysis and projecting, and effective communication, both within engineering and to those outside the engineering function.

ENMG 6102 Engineering Management II 3cr.
Prerequisite: B.S. in Engineering or consent of department. Legal and ethical aspects of engineering management. Emphasis will be upon specifics of human resources management in areas such as hiring, promotions, and other human resource issues and selected subjects such as TQM. Attention will also be placed upon contracts and contract administration, and ethical requirements in the engineering environment.

ENMG 6111 Quantitative Analysis of Engineering Management I 3cr.
Prerequisite: B. S. in Engineering or consent of department. Basic concepts of accounting, financial analysis, and economic analysis applied to problems confronting the engineer. Emphasis will be placed upon interpreting and using accounting and cost data in planning and projecting work, as well as analysis using financial and economic models.

ENMG 6112 Quantitative Analysis of Engineering Management II 3cr.
Prerequisite: Consent of Department - Use of statistical analysis and risk management principles in the decision making process. Emphasis will be upon probabilistic thinking and applying concepts of statistics and decision making models to uncertain decision

making situation.

ENMG 6120 Engineering Project Management 3cr.
(ENCE 6390, ENMG 6120, and MANG 6472 are cross-listed) Prerequisite:consent of department. Encompasses project organization structure, project planning and control. Discussions will include performance analysis based on earned value. Emphasis will be given to project management information systems. Human behavior in the project setting will be discussed.

ENMG 6130 Management of Technology Change 3cr.
Prerequisite: ENMG 6101 or consent of department. Emphasis on techniques that are useful in successfully introducing change in technical organizations. The role of sponsors, advocates, targets, and agents. Change viewed as a process. Case studies are examined, when appropriate, but much of the learning is directed toward application of the principles of change to the students' organizations.

ENMG 6140 Information Networks for the Technical Enterprise 3cr.
Prerequisite: Baccalaureate Degree in Engineering or consent of Department. Engineering aspects of data transmission systems (networks) and their business applications. Hardware and software considerations for selecting a cost-effective network for business applications; database organization, network access, and security; and effective integration of the information system into a technical business environment. Post implementation management of a business oriented information network. Students will individually develop a proposed business information system for a hypothetical business.

ENMG 6150 Systems Analysis, Development, and Management 3cr.
Prerequisite: BS in Engineering, or consent of department. Emphasis of this course will be on the techniques that are required to deal with problems arising in complex human and technical systems. The role of systems thinking in problem solutions for companies, schools, and governments will be explored. The course is based on three complementary systems approaches; analysis of systems failures and catastrophes (a systems approach to failures), a systems approach to organizational decision-making (hard systems analysis), and a systems approach to organizational change (soft systems analysis).

ENMG 6401 Seminar in Organizational Behavior 3cr.
(MANG 6401 and ENMG 6401 are cross-listed) Prerequisite: MANG 3401 or ENMG 6101 or consent of department. A study of organizational behavior across all levels of organizational life: the individual, interpersonal, group, organizational, and society. Problems to be discussed and dealt with include motivation, communications, leadership, group dynamics, power, organizational structures and design, and various types of environmental constraints including competition, markets, and governmental regulations. Lecture, discussion, and group problem-solving project reports are included in instructional methodology.

ENMG 7000 Thesis Research 1-9cr.
Prerequisite: Consent of department. To be repeated for credit until thesis is accepted. Section number will corresponding with credit to be earned.

ENMG 7040 Examination or Thesis Only 0cr.
No credit. Prerequisite: Consent of department. Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

English

The completion of English 1158 is required of all students and is prerequisite to all courses. To be eligible for English courses numbered 3000 to 4999, students must have completed 45 hours of coursework, including six hours of literature courses in the English Department, numbered from 2000 to 2999. English 2238 and 2248 or English 2341 and 2342 are commonly taken by non-English majors to fulfill this requirement. For superior students, honors sections are usually available in English 1158, 2238, and 2248. These are numbered 1159, 2239, and 2249. There are three possible grades in English courses numbered below 1000: P, U, and F. P denotes satisfactory completion of the course. U denotes unsuccessful participation and is given to the student who attends class regularly but does not pass. F denotes non-participation and is given to the student who does unsatisfactory work and is absent for the equivalent of more than two weeks.

ENGL 150 Developmental English 3cr.
Offered each semester. An intensive course designed to introduce students to the fundamentals of college writing. English 150 may not fulfill any degree requirement. NOTE: On the basis of the UNO Placement Test or previous college English (if any), students will be required to take one, two, three, or four semesters of freshman composition, including Developmental English. Only two credit courses may count toward any degree program. The required courses must be taken progressively, but in rare cases of exceptional progress, students completing 150 may be permitted to skip 1156 and/or 1157; such students are eligible for by-pass credit in English 1156 and/or 1157 under the procedure used for advanced placement credit for courses by-passed.

ENGL 181 Elementary Intensive English as a Second Language 6cr.
Prerequisite: ESL Placement Test. An intensive elementary-level course for students whose native language is not English. Thirteen class hours per week. ENGL 181-182 may not be counted for fulfillment of degree requirements.

ENGL 182 Elementary Intensive English as a Second Language 3-12cr.
Prerequisite: ESL Placement Test. An intensive elementary-level course for students whose native language is not English. Thirteen class hours per week. ENGL 181-182 may not be counted for fulfillment of degree requirements.

ENGL 183 Intermediate Intensive English as a Second Language 6cr.
Prerequisite: ESL Placement Test or completion of 181-182. An intensive intermediate-level course for students whose native language is not English. Thirteen class hours per week. ENGL 183-184 may not be counted for fulfillment of degree requirements.

ENGL 184 Intermediate Intensive English as a Second Language 3-12cr.
Prerequisite: ESL Placement Test or completion of 181-182. An intensive intermediate-level course for students whose native language is not English. Thirteen class hours per week. ENGL 183-184 may not be counted for fulfillment of degree requirements.

ENGL 185 Advanced Intensive English as a Second Language 6cr.
ESL Placement Test or completion of 183-184. An intensive advanced level course for students whose native language is not English. Thirteen class hours per week. ENGL 185-186 may not be counted for fulfillment of degree requirements.

ENGL 186 Advanced Intensive English as a Second Language 12cr.

ESL Placement Test or completion of 183-184. An intensive advanced level course for students whose native language is not English. Thirteen class hours per week. ENGL 185-186 may not be counted for fulfillment of degree requirements.

ENGL 187 Semi-Intensive English as a Second Language 6cr.
ESL Placement Test or completion of 186. A semi-intensive course for students whose native language is not English. Six class hours per week. ENGL 187 may not be counted for fulfillment of degree requirements.

ENGL 188 English as a Second Language 3cr.
Prerequisite: ESL Placement Test or completion of ENGL 185-186. A composition course designed for students whose native language is not English. Upon completion of ENGL 188, a student may go on to ENGL 189 or a higher course in some cases; upon completion of ENGL 189, a student may go on to ENGL 150, 1157, 1158, or 1159, depending upon his or her degree of proficiency in composition. Neither ENGL 188 nor ENGL 189 may be counted for fulfillment of degree requirements.

ENGL 189 English as a Second Language 3cr.
Prerequisite: ESL Placement Test or completion of ENGL 185-186. A composition course designed for students whose native language is not English. Upon completion of ENGL 188, a student may go on to ENGL 189 or a higher course in some cases; upon completion of ENGL 189, a student may go on to ENGL 150, 1157, 1158, or 1159 depending upon his or her degree of proficiency in composition. Neither ENGL 188 nor ENGL 189 may be counted for fulfillment of degree requirements.

ENGL 191 Effective Speaking for International Graduate Students 3cr.
Prerequisite: Placement by ESL Placement Test or by English Department. A non-intensive course in speaking designed specifically for graduate students whose first language is not English. Special emphasis is given to academic presentation skills, pronunciation, and nonverbal communication.

ENGL 192 Effective Writing for International Graduates 3cr.
Prerequisites: Placement by ESL Placement Test or English Department. A non-intensive course in report writing designed specifically for graduate students whose first language is not English. Special emphasis is given to writing problem-solution texts, data commentaries, summaries, critiques, and research papers.

ENGL 230 Reading Improvement 3cr.
Designed to train students in college-level reading. The entire reading process will be explored and applied through group interaction and individualized reading instruction. Three hours of lecture and one hour of laboratory work per week will be required. ENGL 230 may not be counted for fulfillment of degree requirements. NOTE: This course will be required of certain students on the basis of the ACT test and additional reading tests. It is also available as an elective to all students.

ENGL 1156 English Composition 3cr.
Each course offered each semester. An introductory sequence of writing courses. On the basis of the UNO Placement Test or previous college English (if any), students will be grouped and required to take one, two, or three semesters of freshman composition. The required courses must be taken progressively, but in cases of exceptional progress, students completing 1156 may be permitted to skip 1157; such students are eligible for by-pass credit in English 1157 provided they earn a C or better in 1158. Students who enter 1158 or 1159 initially thus take only one semester of freshman composition and may proceed without delay to any 2000-level course for which they have the necessary prerequisites. (1159 is the honors section of 1158.) In order to receive credit for 1158, students must pass a proficiency examination at the end of the semester. NOTE: Students may use up to 6 hours of composition credit towards their degrees.

ENGL 1157 English Composition 3cr.
Each course offered each semester. An introductory course in writing largely expository accompanied by selected readings. ENGL 150 may not be counted for fulfillment of degree requirements. NOTE: On the basis of the UNO Placement Test or previous college English (if any) students will be grouped and required to take one two or three semesters of freshman composition. The required courses must be taken progressively but in rare cases of exceptional progress students completing 150 may be permitted to skip 1157; such students are eligible for by-pass credit in ENGL 1157 under the procedure used for advanced placement credit for courses by-passed. Students who enter 1158 or 1159 initially thus take only one semester of freshman composition and may proceed without delay to any 2000-level course for which they have the necessary prerequisites. (1159 is the honors section of 1158.) In order to receive credit for 1158 students must pass a proficiency examination at the end of the semester.

ENGL 1158 English Composition 3cr.
Each course offered each semester. An introductory course in writing largely expository accompanied by selected readings. ENGL 150 may not be counted for fulfillment of degree requirements. NOTE: On the basis of the UNO Placement Test or previous college English (if any) students will be grouped and required to take one two or three semesters of freshman composition. The required courses must be taken progressively but in rare cases of exceptional progress students completing 150 may be permitted to skip 1157; such students are eligible for by-pass credit in ENGL 1157 under the procedure used for advanced placement credit for courses by-passed. Students who enter 1158 or 1159 initially thus take only one semester of freshman composition and may proceed without delay to any 2000-level course for which they have the necessary prerequisites. (1159 is the honors section of 1158.) In order to receive credit for 1158 students must pass a proficiency examination at the end of the semester.

ENGL 1159 English Composition 3cr.
Each course offered each semester. An introductory course in writing largely expository accompanied by selected readings. ENGL 150 may not be counted for fulfillment of degree requirements. NOTE: On the basis of the UNO Placement Test or previous college English (if any) students will be grouped and required to take one two or three semesters of freshman composition. The required courses must be taken progressively but in rare cases of exceptional progress students completing 150 may be permitted to skip 1157; such students are eligible for by-pass credit in ENGL 1157 under the procedure used for advanced placement credit for courses by-passed. Students who enter 1158 or 1159 initially thus take only one semester of freshman composition and may proceed without delay to any 2000-level course for which they have the necessary prerequisites. (1159 is the honors section of 1158.) In order to receive credit for 1158 students must pass a proficiency examination at the end of the semester.

ENGL 2031 Survey of American Literature before the Civil War 3cr.
Required of English majors.

ENGL 2032 Survey of American Literature after the Civil War 3cr.
Required of English majors.

ENGL 2041 Major American Writers 3cr.
A study of works of important authors from 1600 to the present. Intended for non-English majors.

ENGL 2043 New Orleans Literature 3cr.
This course covers selected literary works set in New Orleans.

ENGL 2071 African-American Literature I 3cr.
Writings of African-Americans to 1939.

ENGL 2072 African-American Literature II 3cr.
Writings of African-Americans since 1939.

ENGL 2151 Introduction to Non-Fiction Writing 3cr.
The theory and practice of exposition, description, and narration.

ENGL 2152 Technical Writing 3cr.
Not open to freshmen without consent of department. A course designed primarily for students in science and engineering: the various forms of expository writing, with special emphasis on the preparation of reports or technical papers.

ENGL 2153 Business Writing 3cr.
A course in writing business documents of many different genres for instrumental business purposes and for various business and public audiences.

ENGL 2161 Introduction to Fiction Writing 3cr.
Prerequisite: ENGL 2230; 2238 or 2239; 2258; or consent of department. An introduction to the basic forms and techniques of fiction writing.

ENGL 2163 Introduction to Poetry Writing 3cr.
Prerequisite: ENGL 2230; 2228 or 2229; 2258; or consent of department. An introduction to the basic forms and techniques of poetry writing.

ENGL 2199 Independent Work for Honors Students 1cr.

ENGL 2208 Introduction to Drama 3cr.
Offered each semester. A general introduction to the study and appreciation of drama. An Honors section, designated at English 2209, is usually available in alternating spring semesters. (A student may not receive credit for both English 2230 and 2208 or both English 2208 and 2209.)

ENGL 2209 Introduction to Drama 3cr.
Usually available in alternating spring semesters. An Honors section of the general introduction to the study and appreciation of drama. (A student may not receive credit for both English 2230 and 2209 or both English 2208 and 2209.)

ENGL 2218 Introduction to Nonfiction 3cr.
Offered each semester. A general introduction to the study and appreciation of literary nonfiction.

ENGL 2228 Introduction to Poetry 3cr.
Offered each semester. A general introduction to the study and appreciation of poetry. An Honors section, designated as English 2229, is usually available in alternating spring semesters. (A student may not receive credit for both English 2228 and 2229 or both English 2228 and 2230.)

ENGL 2229 Introduction to Poetry 3cr.
Usually available in alternating spring semesters. An Honors section of the general introduction to the study and appreciation of poetry. (A student may not receive credit for both English 2228 and 2229 or both English 2229 and 2230.)

ENGL 2230 Literary Visions 3cr.
Study of the principles, categories, and criteria for literature. The course is designed primarily for non-English majors. (A student may not receive credit in both ENGL 2230 and, 2208, 2209, 2238, 2229, 2238, 2239, or 2258.)

ENGL 2238 Introduction to Fiction 3cr.
Offered each semester. A general introduction to the study and appreciation of fiction. An Honors section 2239 is usually available in the fall semester. (A student may not receive credit in both ENGL 2230 and 2238 or both English 2238 and 2239.)

ENGL 2239 Introduction to Fiction 3cr.
Usually available in the fall semester. An Honors section of the general introduction to the study and appreciation of fiction. (A student may not receive credit for both English 2230 and 2239 or both English 2238 and 2239.)

ENGL 2258 Interpreting Literature 3cr.
An intensive course in writing about various literary genres, designed to sharpen literary skills. Required for English majors. (A student may not receive credit for both English 2230 and 2258.)

ENGL 2279 The Literature of Ancient Greece 3cr.
Open only to honors students concurrently enrolled in A&S 1119. An intensive writing course on art, literature, and philosophy of Ancient Greece.

ENGL 2282 An Introduction to Linguistics and English Usage 3cr.
An introduction to basic linguistic concepts and an examination of levels of usage and notions of correctness as they relate to pronunciation, grammar, and vocabulary.

ENGL 2284 A Survey of New Orleans English 3cr.
A survey of the nature and role of regional, social, and ethnic language varieties through an intensive examination of the main phonological, lexical, idiomatic, and grammatical features of New Orleans English.

ENGL 2299 Independent Work for Honors Students 1cr.

ENGL 2311 American Film as Literary Art 3cr.
An introduction to the literary art of American film based on representative classics. A laboratory fee is required.

ENGL 2312 International Film As Literary Art 3cr.
An introduction to the literary art of film based on representative international films. Completion of ENGL 2311 is recommended. A laboratory fee is required.

ENGL 2341 A Survey of British Literature from the Beginning to Later Eighteenth Century 3cr.
This course is open to all students; it is required for English majors, literature track.

ENGL 2342 A Survey of British Literature from the Romantics to the Present 3cr.
This course is open to all students; it is required for English majors, literature track.

ENGL 2371 Classics of Western Literature I 3cr.
A study of Greek and Latin literature in translation. This course will acquaint the student with major classical works and their influence on English and American literature. The course will include works by Homer, Aeschylus, Sophocles, Euripides, Plato, Virgil, Horace, Catullus, Juvenal, and Ovid.

ENGL 2372 Classics of Western Literature II 3cr.
Prerequisite: three hours of literature courses numbered 2000 or above or consent of department. A study of European literature in translation. This course will acquaint the student with major French, Spanish, Italian, German, and Russian works and their influence on English and American literature.

ENGL 2374 Asian Literature 3cr.
An introductory survey of Asian literature in translation. The course will acquaint the student with major works of India, China,

and Japan stressing their influence on the themes and genres of contemporary Western literature.

ENGL 2375 Asian American Literature 3cr.
An introduction to the literary works of Asian Americans, including those of Chinese, Japanese, Korean, Filipino, Vietnamese, Indonesian, and South Asian descent.

ENGL 2376 Introduction to Lesbian and Gay Literature 3cr.
An introductory survey of representative works by lesbian and gay writers.

ENGL 2377 The Bible as Literature 3cr.
A study of selections from the Old and New Testaments.

ENGL 2378 Introduction to Women's Literature 3cr.
An introductory survey of representative works in diverse literary forms by women from a wide variety of backgrounds and cultures with a focus on the idea of difference in women's writings and consider their relation to issues of class race sexual orientation and social context.

ENGL 2391 Independent Work 1cr.
Prerequisite: Consent of the department. Reading, conferences, and reports under the direction of a member of the English faculty.

ENGL 2392 Independent Work 1cr.
Prerequisite: Consent of the department. Reading, conferences, and reports under the direction of a member of the English faculty.

ENGL 2393 Independent Work 1cr.
Prerequisite: Consent of the department. Reading, conferences, and reports under the direction of a member of the English faculty.

ENGL 2398 Special Studies in Literature and Language 3cr.
Reading, evaluation, and discussion of selected writers works or literary topics. May be repeated once for credit.

ENGL 2399 Independent Work for Honors Students 1cr.

ENGL 2521 Shakespeare 3cr.
The more popular plays.

ENGL 2915 The Post World War II Novel 3cr.
A study of important contemporary novels.

ENGL 3042 Major Figures In American Literature 3cr.
Prerequisite: ENGL 2041 or 4041 or consent of department. Selection of authors to be studied will vary from semester to semester.

ENGL 3240 Children's Literature 3cr.
(ENGL 3240 and EDLS 3100 are cross-listed) Selection evaluation and use of books and materials for children; the role of literature in curriculum supplementation; and an examination of the changing social and cultural patterns in children's reading. This course can be used to satisfy general degree requirements in literature for upper elementary education students only.

ENGL 3394 Senior Seminar in English 3cr.
Prerequisite: 90 hours of University credit or upon recommendation of English faculty member. A study in depth of a single author, literary theme, or topic.

ENGL 3399 Senior Honors Thesis 3cr.
Prerequisite: consent of department and the director of the Honors Program. Directed research culminating in a written thesis to meet the requirements for graduation with Honors in English and if appropriate University Honors. Upon petition three hours of related course work in advanced English may be credited toward the thesis. May be repeated once for credit.

ENGL 3595 Academic Year Abroad: Special Topics in English 3cr.
This course is offered only through UNO's Academic Year Abroad (AYA) in Innsbruck, Austria, and can be repeated once for credit.

ENGL 4030 Colonial & Early National American Literature 3cr.
A study of American literature from the beginnings to 1820.

ENGL 4031 The American Renaissance 3cr.
A study of American literature from 1820 to the Civil War.

ENGL 4032 American Realism and Naturalism 3cr.
A study of American literature from the Civil War to 1910.

ENGL 4033 American Modernism 3cr.
A study of American literature from 1910 to 1950.

ENGL 4034 Contemporary American Literature 3cr.
A study of American literature from 1950 to the present.

ENGL 4045 Southern Literature 3cr.
The literature of the American South surveyed from its colonial origins to the present, with special attention to the major figures.

ENGL 4070 Special Topics in Women, Literature, and Society 3cr.
(WS 4070, ENGL 4070 and SOC 4070 are cross-listed) Prerequisite: ENGL 2378 or SOC 1051 or WS 2010 or consent of instructors. A team-taught, interdisciplinary study of women in literature and society. Variable topics include women and crime, women and work, women and the family, women and religion.

ENGL 4091 American Movements and Genres, 1500-1860 3cr.
Discussion of one American literary movement or genre. May include film. Topic may vary from semester to semester. May be repeated once for credit with different topic, with consent of department.

ENGL 4092 American Movements and Genres, 1860-present 3cr.
Discussion of one American literary movement period or genre. May include film. Topic may vary from semester to semester. May be repeated once for credit with different topic, with consent of department.

ENGL 4093 Studies in Black Literatures 3cr.
Topic will vary from semester to semester. May be repeated once for credit.

ENGL 4151 Modern Composition: Theory and Practice 3cr.
Prerequisite: ENGL 2151 or consent of department. Intensive study and practice in recent applications of traditional rhetorical modes.

ENGL 4152 Technical Editing and Reporting 3cr.
A detailed examination of important aspects of technical communication: technical editing, formal proposal writing, formal report writing, instruction manuals, and technical graphics.

ENGL 4154 Advanced Non-fiction Writing 3cr.
A workshop in magazine and article writing as well as other forms of non-fiction. May be repeated for credit only with consent of department.

ENGL 4155 Professional Editing 3cr.
A practical course dealing with the techniques of professional editing of nontechnical material.

ENGL 4158 Legal Writing 3cr.
A practical course dealing with the techniques of legal writing, the skills of composition appropriate to the special needs of lawyers and others in the legal professions.

ENGL 4161 Advanced Fiction Writing 3cr.
Prerequisite: ENGL 2161 or consent of department based on a writing sample. Guided practice in writing fiction and a close, intensive study of the techniques involved. May be repeated once for credit.

ENGL 4163 Advanced Poetry Writing 3cr.
Prerequisite: ENGL 2163 or consent of department based on a writing sample. Guided practice in writing poetry and a close, intensive

study of the techniques involved. May be repeated once for credit.

ENGL 4230 Literary Sources of the Western Tradition 3cr.
A survey of the principal mythological influences on Western literature.

ENGL 4231 Literary Criticism 3cr.
A study of some of the more important literary critics, ancient and modern.

ENGL 4240 Adolescent Literature 3cr.
(ENGL 4240 and EDLS 4200 are cross listed A survey of books and materials appropriate for use with the adolescent reader. Emphasis will be placed on selection and discussion of books for today's teenagers.This course can be used to satisfy general degree requirements in literature for upper elementary education students only.

ENGL 4280 General Linguistics 3cr.
Prerequisite: ENGL 2282 or consent of department. A study of modern linguistic theory and universal grammar. Attention will be given to historical and geographical linguistics and to the linguistic structure of non-Western languages.

ENGL 4281 History of the English Language 3cr.
The development of the language from Old English times to the Modern English period.

ENGL 4282 Contemporary English Language 3cr.
The structure of the English language and its application in the classroom.

ENGL 4283 Regional Varieties of English in the Americas 3cr.
A survey of the regional dialects of North America and the Caribbean.

ENGL 4284 The Study of Social Dialects 3cr.
An investigation of the presently developing principles and methods of studying nonstandard English, with some exploration of the ways in which such principles and methods might apply to the study of New Orleans social dialects. Some field work will be required.

ENGL 4285 Second Language Acquisition 3cr.
Prerequisite: ENGL 2282, 4280 or 4282 or consent of instructor. An introduction to the theory of acquiring a second language as it pertains to children and adults.

ENGL 4286 Language and Gender 3cr.
Prerequisite: ENGL 2282 or permission of the instructor. This course focuses on the linguistic and socio-cultural dimensions of language use by women and men while introducing students to the theory and practice of data-based language description.

ENGL 4370 Studies in the Bible 3cr.
Advanced work in applying the methods of literary criticism to biblical texts. Topics will vary from semester to semester.

ENGL 4376 Lesbian and Gay Studies in Literature 3cr.
This course offers advanced work in lesbian and gay critical theories and their application to literature.

ENGL 4378 Advanced Studies in Women and Literature 3cr.
Prerequisite: ENGL 2378 or consent of department. Advanced work in feminist critical theories and their application to fictional and non-fictional literature.

ENGL 4390 Comparative Studies 3cr.
Prerequisite: 90 hours of university credit or upon recommendation of English faculty member. A course that applies the aims and methods of comparative studies to a topic in focusing on literature across national boundaries and/or in relation to other arts and disciplines. Topics will vary. May be repeated once for credit.

ENGL 4391 Special Topics in Language and Literature 3cr.
Prerequisite: consent of department. Topic will vary from semester to semester. May be repeated once for credit.

ENGL 4392 Independent Topics 1cr.
Prerequisite: consent of department. Reading, discussions, and reports under the direction of a member of the English faculty. This course may be repeated but total credit may not exceed four semester hours.

ENGL 4398 Internship in English 3cr.
Prerequisite: consent of department. A course emphasizing writing skills in internships in local industrial, business, and government agencies. May be repeated once for credit by undergraduates only.

ENGL 4401 Literature of England in the Later Middle Ages 3cr.
Readings in the works of Langland, Gower, Malory, and the "Pearl Poet" and in other works of the period between 1100 and 1500.

ENGL 4421 Chaucer 3cr.
The Canterbury Tales.

ENGL 4501 English Literature of the Sixteenth Century 3cr.
A survey of the prose and verse of the earlier Renaissance in England including works by Thomas More, Wyatt, Surrey, Sidney, Spenser, Marlowe, Raleigh, and Shakespeare.

ENGL 4516 The Beginning of the English Drama 3cr.
The development of English drama to Shakespeare.

ENGL 4521 Shakespeare 3cr.
The earlier plays, their background, with some attention to Shakespeare's life and time.

ENGL 4522 Shakespeare 3cr.
The later plays, with particular emphasis on the author's development.

ENGL 4601 English Literature of the Seventeenth Century, 1600-1660 3cr.
A survey of the literature of the later Renaissance in England, including works by the major prose writers and by the metaphysical, Cavalier, and devotional poets: Bacon, Hobbes, Donne, Jonson, Herrick, Herbert, Milton, and Marvell.

ENGL 4616 Drama of the Age of Shakespeare 3cr.
Shakespeare's contemporaries and immediate successors to 1642.

ENGL 4621 Milton 3cr.
A study of the poems with emphasis on Paradise Lost, Paradise Regained, and Samson Agonistes and an examination of various prose works.

ENGL 4696 Washington Center Internship 6cr.
The Washington, D.C. Internship Program is offered in cooperation with the Washington Center for Internships and Academic Seminars. Students of junior-level or higher standing and a grade-point average of 2.5 or better are eligible to participate in the Program. The program is conducted in Washington, D.C. and consists of an internship of four-and-a-half workdays per week, a three-hour course one night a week, and a major research paper. Participants can earn 12 credit hours during a fall or spring semester (nine hours in summer).

ENGL 4698 Washington Center Research 3cr.
The Washington, D.C. Internship Program is offered in cooperation with the Washington Center for Internships and Academic Seminars. Students of junior-level or higher standing and a grade-point average of 2.5 or better are eligible to participate in the Program. The program is conducted in Washington, D.C. and consists of an internship of four-and-a-half workdays per week, a three-hour course one night a week, and a major research paper.

Participants can earn 12 credit hours during a fall or spring semester (nine hours in summer).

ENGL 4701 Restoration and Early Eighteenth Century Literature 3cr.
Prose and poetry from the Restoration to the death of Pope with emphasis on Dryden, Pope, and Swift.

ENGL 4702 Later Eighteenth Century Literature 3cr.
Prose and poetry from the death of Pope to 1798 with emphasis on Johnson and his circle.

ENGL 4715 The Eighteenth Century English Novel 3cr.
A study of the development and characteristics of the English novel from its beginnings through the time of Austen.

ENGL 4716 Restoration and Eighteenth Century English Drama 3cr.
A study of English drama from the later seventeenth century to the end of the eighteenth century with some attention to developments in staging.

ENGL 4801 Prose and Poetry of the Early Romantic Period 3cr.
Writers of the preromantic period; Blake, Wordsworth, Coleridge, and other writers of the period.

ENGL 4802 Later Romantic Writers 3cr.
Emphasis on Byron, Shelley, and Keats with some attention to such prose writers as DeQuincey and Hazlitt.

ENGL 4807 Earlier Victorian Literature 3cr.
Tennyson, Browning, Macaulay, Carlyle, and their contemporaries.

ENGL 4808 Later Victorian Literature 3cr.
Arnold, Swinburne, Morris, Rossetti, Pater, Stevenson, and contemporaries to 1900.

ENGL 4815 The Nineteenth Century English Novel 3cr.
A study of the English novel from Austen to Conrad.

ENGL 4913 Early Twentieth Century Poetry 3cr.
Modern English and American poetry to 1945.

ENGL 4914 Contemporary Poetry 3cr.
English and American poetry since 1945.

ENGL 4915 The Modern Novel 3cr.
A study of the novel from 1900 to 1945.

ENGL 4916 Twentieth Century Drama 3cr.
Modern and Contemporary European, English, and American Drama.

ENGL 4917 The Contemporary Novel 3cr.
A study of the novel since 1945.

ENGL 6001 Studies in American Literature Before 1865 3cr.

ENGL 6007 Studies in American Literature Since 1865 3cr.

ENGL 6090 Special Studies in American Literature 3cr.

ENGL 6150 Writing Project Workshop 3cr.
A workshop in advanced writing.

ENGL 6151 Writing Institute 3-6cr.
(EDCI 6020 and ENGL 6151 are cross-listed) Offered during the summer session only. An invitational workshop designed for teachers interested in improving writing, theirs and their students'. An intensive exploration of the research and practice in the field. Section number will correspond with credit to be earned.

ENGL 6154 Non-Fiction Writing Workshop 3cr.
A workshop in advanced non-fiction writing. May be repeated once for credit only with consent of department.

ENGL 6161 Writing Fiction 3cr.
Admission by permission of the department. Training in the writing of short stories and novels. May be repeated for credit.

ENGL 6163 Writing Poetry 3cr.
Admission by permission of the department. Training in the writing of poetry. May be repeated for credit.

ENGL 6171 Intensive Fiction Writing 3cr.
Admission by permission of the department. Training in the writing of short stories and novels, taught in an intensive (short term) format, in residence. May be repeated for credit.

ENGL 6173 Intensive Poetry Writing 3cr.
Admission by permission of the department. Training in the writing of poetry, taught in an intensive (short term) format, in residence. May be repeated for credit.

ENGL 6174 Intensive Non-Fiction Writing Workshop 3cr.
A workshop in advanced non-fiction writing, taught in an intensive (short term) format, in residence. May be repeated for credit with consent of department.

ENGL 6191 Remote Fiction Writing 3cr.
Admission by permission of the department. Training in the writing of short stories and novels taught via distance learning techniques. May be repeated for credit.

ENGL 6193 Remote Poetry Writing 3cr.
Admission by permission of the department. Training in the writing of poetry taught via distance learning techniques. May be repeated for credit.

ENGL 6194 Remote Non-Fiction Writing Workshop 3cr.
A workshop in advanced non-fiction writing taught via distance-learning techniques. May be repeated for credit with consent of department.

ENGL 6230 Premodern Sources of English Literature 3cr.
A survey of the ancient and medieval texts that have most profoundly influenced the English literary tradition.

ENGL 6231 Literary Theory 3cr.
The discipline and practice of literary theory. The course will focus on twentieth-century developments in the field.

ENGL 6232 Modern Rhetoric & Composition 3cr.
Developments in Modern Rhetoric and Composition.

ENGL 6240 Nonfiction 3cr.
Study of the genres of nonfiction.

ENGL 6243 Poetry 3cr.
Study of poetry as a genre.

ENGL 6245 The Novel 3cr.
Study of the novel as a genre.

ENGL 6246 Drama 3cr.
Study of drama as a genre.

ENGL 6247 The Short Story

Environmental Science and Policy

EVSP 1100 Introduction to Environmental Sciences & Policy 3cr.
Prerequisite: eligibility to enroll in ENGL 1157. A survey of environmental science and policy issues, including ecology, engineering, geology, geography, law, economics, philosophy, and sociology.

EVSP 2100 Introduction to Law & Regulatory Institutions 3cr.
Prerequisite: EVSP 1100. A survey of the legal aspects and governmental institutions affecting environmental policy, including con-

stitutional law, contract/property/tort law, regulatory law, and governmental agencies and rules.

EVSP 3091 Independent Studies in Environmental Science 1cr.
Prerequisite: Consent of coordinator. Directed readings, research, or applications designed to meet the needs and interests of individual students. Conferences between the student and a supervising instructor are required. May be repeated with permission.

EVSP 3092 Independent Studies in Environmental Policy 1-3cr.
Prerequisite: Consent of coordinator. Directed readings, research, or applications designed to meet the needs and interests of individual students. Conferences between the student and a supervising instructor are required. May be repeated with permission.

EVSP 3093 Independent Studies in Environmental Management 1-3cr.
Prerequisite: Consent of coordinator. Directed readings, research, or applications designed to meet the needs and interests of individual students. Conferences between the student and a supervising instructor are required. May be repeated with permission.

EVSP 3094 Independent Studies in Environmental Sociology 1-3cr.
Prerequisite: Consent of coordinator. Directed readings, research, or applications designed to meet the needs and interests of individual students. Conferences between the student and a supervising instructor are required. May be repeated with permission.

EVSP 3097 Special Topics in Environmental Science and Policy 1-3cr.
Prerequisite: Consent of coordinator. A lecture, field, and/or seminar format will be used to present special topics in the field of environmental science and policy. Content will vary from semester to semester. May be repeated with permission.

EVSP 3099 Senior Honors Thesis 1-6cr.
Prerequisite: written consent of professors directing the thesis and the director of the Honors Program. Research on an environmental topic culminating in the submission and oral defense of a thesis approved by a faculty committee. May be repeated for a total of six credits.

EVSP 3100 Environmental and Natural Resource Law 3cr.
Prerequisite: EVSP 2100. An overview of the environmental resource laws that affect the development and application of environmental policies.

EVSP 3300 Environmental Engineering for Non-Engineers 3cr.
Prerequisite: CHEM 1018.The application of environmental engineering principles to the prevention or mitigation of environmental problems are discussed. Topics will include water quality, water purification processes in natural systems, air quality, solid wastes, and hazardous wastes. This course may not be used to fulfill degree requirements in the College of Engineering.

EVSP 4100 Approaches to Environmental Problems 3cr.
Prerequisite: EVSP 3100. The development of plans to remediate environment problems taking into consideration the scientific, legal, economic and social aspects.

Film, Theatre and Communication Arts

FTCA 1000 The Theatre 3cr.
An introductory study of drama and theatre. Focus is on the artists and technicians who create theatre the history of theatre, and the components involved in the production process. This class does not involve the actual production of a play or performance. Film, Theatre and Communication Arts majors cannot receive degree credit for both FTCA 1000 and 1005.

FTCA 1005 Intro to Drama 3cr.
Study of different types of plays from the ancient Greek theatre to the present. Emphasis on interpreting scripts for the stage. Course is designed primarily for students with a focus in theatre.

FTCA 1006 Intro to Drama Laboratory 1cr.
Offered only in the fall semester. Hands-on experience in one or more areas of departmental production -film, video, radio, theatre- (performance, technical production, production management). Areas will vary each semester. Must be taken concurrently with FTCA 1005.

FTCA 1100 Technical Production I 3cr.
Offered only in the spring semester. An introduction to the design elements of scenery and properties for the stage, technical drawing, techniques and execution. Three to five laboratory hours per week required in current departmental productions in addition to lecture.

FTCA 1110 Basic Visual Design 3cr.
Prerequisite: Introduction to the problems and principles of visual design as it applies to film, video, and digital imagery. Two to four laboratory hours per week is required in studio design projects.

FTCA 1300 Acting I-Beginning 3cr.
An introduction to the art of acting through training imagination, discipline, body, and voice of the beginning actor. Emphasis is on improvisation, exercises related to specific acting techniques, auditions, and scene study.

FTCA 1310 Stage Makeup 3cr.
Offered only in fall semester. Prerequisite: consent of department. The study and practice in the techniques of types and styles of makeup for the stage and screen.

FTCA 1600 Intro to Mass Communication 3cr.
History and development, structure, roles, and functions of mass media in society. Standards for evaluating mass media.

FTCA 1620 Intro to Film Arts 3cr.
One-Time Waiver

FTCA 1800 Theatre Practicum I 1cr.
Backstage experience in presenting a theatrical production. May be repeated once for credit.

FTCA 2000 Field Research in Arts 1cr.min/3cr.max
(FTCA 2000, FA 2000, and MUS 2000 are cross-listed) Prerequisite: consent of department. Special research project in the arts involving field experience and study outside the city of New Orleans. Advance preparation for the project will include conference with or lecture by the faculty and readings in the specific areas to be studied. The study trip will consist of attendance at a minimum of four theatrical or musical performances or a minimum of eight hours spent in visits to exhibits or museums for each hour of credit. A follow-up paper on a research topic inspired by the trip will be required. May be repeated for up to six hours of credit. Credit will be given for only FTCA 2000, FA 2000, or MUS 2000 for the same trip.

FTCA 2060 3D Animation Lab 1cr.
Prerequisites: FTCA 2550 or 2510 and consent of the department. Demonstration and practice of mapping, materials, lighting, atmosphere, virtual cameras, and animation.

FTCA 2090 Special Topics – FTCA 1cr.
Prerequisite: consent of department. Each course is offered for one-third of a semester. Three hours of lecture and six hours of laboratory weekly, depending on topics. Topics carry from semester to semester. Individual course numbers may not be repeated.

FTCA 2091 Special Topics – FTCA 1cr.
Prerequisite: consent of department. Each course is offered for one-third of a semester. Three hours of lecture and six hours of laboratory weekly, depending on topics. Topics carry from semester to semester. Individual course numbers may not be repeated.

FTCA 2092 Special Topics - FTCA 1cr.
Prerequisite: consent of department. Each course is offered for one-third of a semester. Three hours of lecture and six hours of laboratory weekly, depending on topics. Topics carry from semester to semester. Individual course numbers may not be repeated.

FTCA 2100 Technical Production II 3cr.
Offered only in the fall semester. Prerequisite: FTCA 1100. An introduction to the elements of design and execution of costumes and lighting for the stage. Three to five laboratory hours per week required in current departmental productions in addition to lecture.

FTCA 2120 Methods & Materials Stagecraft 3cr.
Prerequisite: FTCA 1110 and 2100. Basic techniques in the practical use of tools, materials, and equipment for stage, screen, and television settings. Three to five laboratory hours per week required in current departmental productions in addition to lecture.

FTCA 2160 Costume Crafts & Techniques 3cr.
Prerequisite: FTCA 1100 and 2100. Techniques in construction of costumes for stage and screen including pattern drafting and cutting and work with various synthetic and experimental materials. Three to five laboratory hours per week required in current departmental productions in addition to lecture.

FTCA 2200 Introduction to Playwriting 3cr.
A consideration of the art and craft of writing for the theatre. Study of playwriting as a literary genre; writing of one-act plays.

FTCA 2250 Screenwriting 3cr.
Prerequisite: FTCA 2510 or 2550 or consent of department. Writing for film and television, emphasizing the format and technical requirements of writing advertising, documentary, and dramatic scripts. Students will write scripts and in laboratory sessions will develop the visualization of their scripts using film and video equipment provided by the department.

FTCA 2265 Intro CAD for Performing Arts 3cr.
Prerequisites: FTCA 1100 and 2100 or consent of department. An introductory course for students with a background in technical production in theater, film, and video, using the computer to aid in drawing, drafting, designing, and printing. The course is structured around the Macintosh computer and will use MacDraw and CAD software along with a drafting plotter and laser printer to produce working drawings, ground plans, sketches, elevations, and a choice of scenic perspectives, lighting plots, or costume patterns. Students will also be allowed to explore CAD alternatives such as those available for IBM and compatible computers. The class will be a combination lecture and laboratory.

FTCA 2270 Introduction to Video Writing 3cr.
One-time Waiver.

FTCA 2300 Voice Training for Actor I 3cr.
Prerequisite: FTCA 1300. The construction of an aesthetic philosophy of voice for the actor. This study will include exercises in the techniques of effective stage speech with an emphasis on discipline, self-awareness used to attain control, flexibility, and natural vocal abilities for use in media and on the stage.

FTCA 2310 Oral Interpretation 3cr.
Prerequisite: FTCA 1300. Introduction to the art of vocal interpretation of dramatic and non-dramatic literature. This course is particularly designed for developing the vocal skills of actors, broadcast journalists, and others who read material aloud.

FTCA 2320 Script Analysis 3cr.
Lecture and group discussion focusing on a systematic technique of script analysis. Selected scenes and a variety of scripts will be utilized. Content designed particularly for students studying acting, directing, or design.

FTCA 2330 Acting II Intermediate 3cr.
Prerequisite: FTCA 1300 or consent of department. Intensive training in the fundamental process of preparing a role including self-knowledge, script analysis, and the application of techniques of objective//action/motivation in characterization. Improvisation, critiques, exercises, performance attendance, and scene study.

FTCA 2335 Perform for Broadcast Media 3cr.
Prerequisite: FTCA 1300. A study devoted to the development of on-camera and on-microphone techniques and skills for television and radio performers. This course is designed for students who plan to seek careers as on-air broadcast performers. Past and current presentational styles and techniques are explored through lectures, demonstrations, and analysis of current professionals on the local, regional, and network levels of television and radio.

FTCA 2380 Directing I – Beginning 3cr.
Prerequisite: FTCA 1300 or consent of department. Fundamentals of script interpretation and directing.

FTCA 2510 Intro to Cinema Techniques 3cr.
Fundamentals of motion picture production. Super-8mm films are produced, edited, screened, and analyzed. Attention is also given to professional film-making techniques. Two hours lecture and two hours laboratory. A student may not receive credit for both FTCA 2510 and 2511.

FTCA 2550 Intro Television Techniques 3cr.
Prerequisite: FTCA 1600 or equivalent. Fundamentals of television programming and production. Scripting, camera, and directing techniques are stressed. Short video tapes are produced and analyzed by the class. One hour of lecture and four hours of laboratory.

FTCA 2560 Field Video Production 3cr.
An introduction to the applications and techniques of field video production. Students develop an understanding of basic video production techniques, applying planning, shooting, and editing methods used in electronic news gathering and electronic field production for various purposes, including news, documentary, educational, narrative, sales promotion, and experimental video projects.

FTCA 2565 Introduction to Digital Tech 3cr.
An introduction to the applications and techniques of digital imaging technology. Students develop an understanding of the fundamentals of computer postproduction applications as they relate to film and video image/sound recording. Two hours lecture and two hours lab.

FTCA 2650 Oral Communications 3cr.
An introductory course in oral communications. Chief emphasis is on communication to the small group. Attention is given to public speaking, interpersonal communication, interviewing, and group discussion.

FTCA 2660 Discussion & Debate 3cr.
Prerequisite: FTCA 2650. Introduction to the fundamentals of public debate and group discussion. Successful completion of this satisfies the general degree requirement for oral competency.

FTCA 2695 Women & the Media 3cr.
The course focuses on media created by, for, and about women,

exploring all areas of print and electronic media including newspapers, radio, television, the internet, advertising, movies and recordings. The class examines the images of women featured in the media, the careers of women working in the media industries, and media created primarily to serve female preferences and appeal to female consumers.

FTCA 2750 Broadcast News 3cr.
Prerequisites: FTCA 1600 and 2550. An introduction to news segments in radio and television. Concentration on the effective use of sound and pictures to inform the public. A study of broadcast news style of writing. Lectures, demonstrations, and analysis of current trends. Course geared toward those seeking a career in broadcast journalism and/or media relations.

FTCA 2755 Television News Packaging 3cr.
Prerequisite: FTCA 2750. An advanced course for those having completed Introduction to Broadcast News. Concentration on assembling elements of the complete video news story; pictures and sound, including interviews and standups. Geared for hard news and features. Lectures, demonstrations, and analysis of current trends. Course designed for those seeking career opportunities in the broadcast-cable television news industry.

FTCA 2770 Promo Publ Propag Mass Media 3cr.
Procedures and theories of mass persuasion in the media. Attention is given to the manner in which such devices as radio and television commercials and dramatic shows, films, and various print media are used to influence mass behavior.

FTCA 2771 Media Graphics 3cr.
Prerequisite: FTCA 1110 or FA 1011 or consent of department. An introductory study of the methods of design and layout for the mass media. Four to six laboratory hours per week are required in studio design projects.

FTCA 2791 Independent Study 1cr.
(FTCA 2791 and JOUR 2791 are cross-listed) Admission by consent of department. Reading, conferences, and preparation of articles, reports, and special projects concerning print journalism under direction of a member of the journalism faculty.

FTCA 2792 Independent Study 1cr.
(FTCA 2791 and JOUR 2791 are cross-listed) Admission by consent of department. Reading, conferences, and preparation of articles, reports, and special projects concerning print journalism under direction of a member of the journalism faculty.

FTCA 2793 Independent Study 1cr.
(FTCA 2791 and JOUR 2791 are cross-listed) Admission by consent of department. Reading, conferences, and preparation of articles, reports, and special projects concerning print journalism under direction of a member of the journalism faculty.

FTCA 2800 Theatre Practicum II 1cr.min/2cr.max
Backstage experience in presenting a theatrical production. May be repeated once for credit.

FTCA 2830 Stage Movement for Actor I 3cr.
Prerequisite: FTCA 1300. The construction of an aesthetic philosophy of movement for the actor. Emphasis on relaxation, self-awareness, flexibility, and imagination to develop characterization for use in the media and on stage.

FTCA 2900 Intro to Theatre Management 3cr.
This course is designed to provide an introduction to producing in the American theatre, especially in the areas of commercial resident theatre, non-commercial community, and educational theatre organizations. Special attention will be given to history of producing, planning, theatre architecture, staffing, budget control, and public relations. A laboratory project will be provided.

FTCA 2950 Stage Management Theatre 3cr.
Traces the process and tools for the professional stage manager from pre-production work through closing night. The student will, upon completion of the course, be capable of steering a production through its various stages.

FTCA 3060 Intermed 3D Animation Lab 1cr.
Prerequisite: FTCA 2060 and consent of department. Students wil design and produce a narrative 3D computer animation of thirty to sixty seconds, with sound. May be repeated once.

FTCA 3061 Advanced 3D Animation Lab 1cr.
Prerquisite: FTCA 3060 and consent of the department. Student is introduced to pre-production dynamics within the animation team. Lab members will develop concept, storyboard, and object meshes for a 3D computer animation collaborative project. May be repeated once.

FTCA 3062 Collaborative Animation Lab 2 cr.
Prerequisite: FTCA 3061 and consent of department. Advanced animation lab team will design, direct, light, animate, and render a major animation project for submission to a regional or national animation festival. May be repeated once.

FTCA 3063 Senior Animation Lab 1cr.
Prerequisite:FTCA 3062 and consent of department. Development of concept, pre-production storyboards, object meshes, textured objects, and lighting for final senior animation project.

FTCA 3064 Senior Animation Project 3cr.
Prerequisite: FTCA 3063 and consent of department. Limited to students of senior standing Students will complete production work developed in FTCA 3063 Senior Animation Lab. Work will be submitted to regional and national animation festivals and become a mandatory senior animation portfolio piece.

FTCA 3090 Independent Study 1cr.
Prerequisite: consent of department. Readings, conferences, and reports under the direction of a member of the drama and communications faculty.

FTCA 3091 Independent Study 1cr.
Prerequisite: consent of department. Readings, conferences, and reports under the direction of a member of the drama and communications faculty.

FTCA 3092 Independent Study 1cr.
Prerequisite: consent of department. Readings, conferences, and reports under the direction of a member of the drama and communications faculty.

FTCA 3098 Senior Practicum 1cr.
Prerequisite: 21 hours of Film, Theatre and Communication Arts courses. Required of all senior Film, Theatre and Communication Arts majors. Practical work in theatre and media.

FTCA 3099 Senior Honors Thesis 3cr.
Prerequisite: consent of department and the honors program. Directed research under a Film, Theatre and Communication Arts faculty member culminating in a written thesis to meet the requirements for graduation with Honors in Film, Theatre and Communication Arts, and, if applicable, University Honors. May be repeated once for credit. Offered fall and spring semesters only.

FTCA 3330 Acting III Advanced 3cr.
Fall semester. Prerequisite: FTCA 2330 or consent of department. Intensive training in actor's methods of character development, moment-to-moment reality, and rehearsal principles. Extensive critiques, exercises, and scene study. May be repeated once for credit.

FTCA 3400 Cul Diversity Film & Theatre 3cr.

An introduction to and survey of the evolution of cultural diversity in film and on the stage. Representative screen and stage examples will be presented. Students will be required to view films and stage productions outside of regularly scheduled class meetings.

FTCA 3595 AYA-Special Topics Drama/Comm 3cr.
This course is only offered through UNO's Academic Year Abroad (AYA) in Innsbruck, Austria and can be repeated once for credit.

FTCA 3760 Educational Journalism 3cr.
(FTCA 3760 and JOUR 3760 are cross-listed) The editorial, business, and mechanical techniques of producing school publications. Designed for school publications advisers.

FTCA 3800 Production Practicum 1cr. min / 2 cr. max
Technical or performance experience in presenting a production.

FTCA 4080 Adv Summer Theatre 3cr.
Study and participation in UNO summer theatre productions. Lectures, discussion, and practical experience either backstage, onstage, or both. Enrollment by consent of department. (FTCA 4080 and 4081 may not be taken simultaneously.) Required weekly laboratory hours on current departmental productions vary according to responsibilities.

FTCA 4080G Adv Summer Theatre 3cr.
Study and participation in UNO summer theatre productions. Lectures, discussion, and practical experience either backstage, onstage, or both. Enrollment by consent of department. (FTCA 4080 and 4081 may not be taken simultaneously.) Required weekly laboratory hours on current departmental productions vary according to responsibilities.

FTCA 4081 Adv Summer Theatre 3cr.
Study and participation in UNO summer theatre productions. Lectures, discussion, and practical experience either backstage, onstage, or both. Enrollment by consent of department. (FTCA 4080 and 4081 may not be taken simultaneously.) Required weekly laboratory hours on current departmental productions vary according to responsibilities.

FTCA 4081G Adv Summer Theatre 3cr.
Study and participation in UNO summer theatre productions. Lectures, discussion, and practical experience either backstage, onstage, or both. Enrollment by consent of department. (FTCA 4080 and 4081 may not be taken simultaneously.) Required weekly laboratory hours on current departmental productions vary according to responsibilities.

FTCA 4090 Special Topics in FTCA 1cr.
Prerequisite: consent of department. Each course is offered for one-third of a semester. Three hours of lecture or six hours of laboratory weekly depending on topic. Topics vary from semester to semester, therefore, individual course numbers may be repeated. A maximum total number of no more than six hours credit may be earned from the entire Special Topics group, 4090-2, 4093-5.

FTCA 4090G Special Topics in FTCA 1cr.
Prerequisite: consent of department. Each course is offered for one-third of a semester. Three hours of lecture or six hours of laboratory weekly depending on topic. Topics vary from semester to semester, therefore, individual course numbers may be repeated. A maximum total number of no more than six hours credit may be earned from the entire Special Topics group, 4090-2, 4093-5.

FTCA 4091 Special Topics in FTCA 1cr.
Prerequisite: consent of department. Each course is offered for one-third of a semester. Three hours of lecture or six hours of laboratory weekly depending on topic. Topics vary from semester to semester, therefore, individual course numbers may be repeated. A maximum total number of no more than six hours credit may be earned from the entire Special Topics group, 4090-2, 4093-5.

FTCA 4091G Special Topics in FTCA 1cr.
Prerequisite: consent of department. Each course is offered for one-third of a semester. Three hours of lecture or six hours of laboratory weekly depending on topic. Topics vary from semester to semester, therefore, individual course numbers may be repeated. A maximum total number of no more than six hours credit may be earned from the entire Special Topics group, 4090-2, 4093-5.

FTCA 4092 Special Topics in FTCA 1cr.
Prerequisite: consent of department. Each course is offered for one-third of a semester. Three hours of lecture or six hours of laboratory weekly depending on topic. Topics vary from semester to semester, therefore, individual course numbers may be repeated. A maximum total number of no more than six hours credit may be earned from the entire Special Topics group, 4090-2, 4093-5.

FTCA 4092G Special Topics in FTCA 1cr.
Prerequisite: consent of department. Each course is offered for one-third of a semester. Three hours of lecture or six hours of laboratory weekly depending on topic. Topics vary from semester to semester, therefore, individual course numbers may be repeated. A maximum total number of no more than six hours credit may be earned from the entire Special Topics group, 4090-2, 4093-5.

FTCA 4093 Spec Topics in FTCA 1cr.
Prerequisite: consent of department. Each course is offered for one-third of a semester. Three hours of lecture or six hours of laboratory weekly depending on topic. Topics vary from semester to semester, therefore, individual course numbers may be repeated. A maximum total number of no more than six hours credit may be earned for the entire Special Topics group, 4090-2, 4093-5.

FTCA 4093G Spec Topics in FTCA 1cr.
Prerequisite: consent of department. Each course is offered for one-third of a semester. Three hours of lecture or six hours of laboratory weekly depending on topic. Topics vary from semester to semester, therefore, individual course numbers may be repeated. A maximum total number of no more than six hours credit may be earned for the entire Special Topics group, 4090-2, 4093-5.

FTCA 4094 Spec Topics in FTCA 1cr.
Prerequisite: consent of department. Each course is offered for one-third of a semester. Three hours of lecture or six hours of laboratory weekly depending on topic. Topics vary from semester to semester, therefore, individual course numbers may be repeated. A maximum total number of no more than six hours credit may be earned for the entire Special Topics group, 4090-2, 4093-5.

FTCA 4094G Spec Topics in FTCA 1cr.
Prerequisite: consent of department. Each course is offered for one-third of a semester. Three hours of lecture or six hours of laboratory weekly depending on topic. Topics vary from semester to semester, therefore, individual course numbers may be repeated. A maximum total number of no more than six hours credit may be earned for the entire Special Topics group, 4090-2, 4093-5.

FTCA 4095 Spec Topics in FTCA 1cr.
Prerequisite: consent of department. Each course is offered for one-third of a semester. Three hours of lecture or six hours of laboratory weekly depending on topic. Topics vary from semester to semester, therefore, individual course numbers may be repeated. A maximum total number of no more than six hours credit may be earned for the entire Special Topics group, 4090-2, 4093-5.

FTCA 4095G Spec Topics in FTCA 1cr.
Prerequisite: consent of department. Each course is offered for one-

third of a semester. Three hours of lecture or six hours of laboratory weekly depending on topic. Topics vary from semester to semester, therefore, individual course numbers may be repeated. A maximum total number of no more than six hours credit may be earned for the entire Special Topics group, 4090-2, 4093-5.

FTCA 4096 Spec Topics Film Production 3cr.
Prerequisite: FTCA 2510 and 4510 or consent of department. The course will meet for three hours of lecture or six hours of laboratory each week, depending upon the topic. Topics will vary from semester to semester, and the course may be repeated once for credit.

FTCA 4096G Spec Topics Film Production 3cr.
Prerequisite: FTCA 2510 and 4510 or consent of department. The course will meet for three hours of lecture or six hours of laboratory each week, depending upon the topic. Topics will vary from semester to semester, and the course may be repeated once for credit.

FTCA 4110 Scene Design 3cr.
Prerequisites: FTCA 1100 and 2100. Principles and techniques of design as related to stage scenery, including the planning and execution of the design. Four to six laboratory hours per week required in studio design projects.

FTCA 4110G Scene Design 3cr.
Prerequisites: FTCA 1100 and 2100. Principles and techniques of design as related to stage scenery, including the planning and execution of the design. Four to six laboratory hours per week required in studio design projects.

FTCA 4120 Scene Painting 3cr.
Prerequisites: FTCA 1100 and 2100. Studio projects in the painting of architectural and natural styles of stage scenery. Four to six laboratory hours per week required in studio design projects.

FTCA 4120G Scene Painting 3cr.
Prerequisites: FTCA 1100 and 2100. Studio projects in the painting of architectural and natural styles of stage scenery. Four to six laboratory hours per week required in studio design projects.

FTCA 4125 Styles of Scene Design 3cr.
Prerequisites: FTCA 1100 and 2100. A study of the history of theatrical design styles, including architectural form, from Greek influences to the present.

FTCA 4125G Styles of Scene Design 3cr.
Prerequisites: FTCA 1100 and 2100. A study of the history of theatrical design styles, including architectural form, from Greek influences to the present.

FTCA 4130 Period Costume Construction 3cr.
Prerequisite: FTCA 2160 or consent of department. Studies in the construction of historic costumes for stage and screen, including period drafting, corseting, draping, and tailoring. Four to six laboratory hours per week required in studio design projects.

FTCA 4130G Period Costume Construction 3cr.
Prerequisite: FTCA 2160 or consent of department. Studies in the construction of historic costumes for stage and screen, including period drafting, corseting, draping, and tailoring. Four to six laboratory hours per week required in studio design projects.

FTCA 4135 Rendering Techniques 3cr.
An exploration of styles and techniques for rendering designs for scenery, costumes, and lights.

FTCA 4135G Rendering Techniques 3cr.
An exploration of styles and techniques for rendering designs for scenery, costumes, and lights.

FTCA 4140 Costume Design 3cr.
Principles and techniques for the design of costumes, including the planning and execution of the design. Four to six hours per week required in studio design projects.

FTCA 4140G Costume Design 3cr.
Principles and techniques for the design of costumes, including the planning and execution of the design. Four to six hours per week required in studio design projects.

FTCA 4150 Development of Fashion 3cr.
A study of Western fashion from the Greek period to the late 19th century. Emphasis on exploring why and how fashion changed and developed, and how society, fashion and culture influenced each other. The shapes, silhouettes and lines of the clothing from each period will be studied.

FTCA 4150G Development of Fashion 3cr.
A study of Western fashion from the Greek period to the late 19th century. Emphasis on exploring why and how fashion changed and developed, and how society, fashion and culture influenced each other. The shapes, silhouettes and lines of the clothing from each period will be studied.

FTCA 4160 Lighting Crafts & Techniques 3cr.
Prerequisites: FTCA 1100 and 2100. Basic principles and techniques for use of lighting instruments, filters, and control technology. Three to six laboratory hours per week required in current departmental productions in addition to lecture.

FTCA 4160G Lighting Crafts & Techniques 3cr.
Prerequisites: FTCA 1100 and 2100. Basic principles and techniques for use of lighting instruments, filters, and control technology. Three to six laboratory hours per week required in current departmental productions in addition to lecture.

FTCA 4170 Lighting Design 3cr.
Prerequisites: FTCA 1110 and 2100. The study of the use and capabilities of light in dramatic production. Four to six laboratory hours per week required in current departmental productions in addition to lecture.

FTCA 4170G Lighting Design 3cr.
Prerequisites: FTCA 1110 and 2100. The study of the use and capabilities of light in dramatic production. Four to six laboratory hours per week required in current departmental productions in addition to lecture.

FTCA 4180 Sound Design & Techniques 3cr.
Prerequisites: FTCA 1100 and 2100. Basic principles and techniques of sound for the stage and studio; study of electronic equipment, operating procedures, and acoustical theory. Three laboratory hours per week required in current departmental productions in addition to lecture.

FTCA 4180G Sound Design & Techniques 3cr.
Prerequisites: FTCA 1100 and 2100. Basic principles and techniques of sound for the stage and studio; study of electronic equipment, operating procedures, and acoustical theory. Three laboratory hours per week required in current departmental productions in addition to lecture.

FTCA 4200 Advanced Playwriting 3cr.
Prerequisite: FTCA 2200 or consent of department. Advanced studies in playwriting. Writing of original scripts for possible production. May be repeated once for credit.

FTCA 4200G Advanced Playwriting 3cr.
Prerequisite: FTCA 2200 or consent of department. Advanced studies in playwriting. Writing of original scripts for possible production. May be repeated once for credit.

FTCA 4251 Advanced Screenwriting 3cr.

Prerequisite: FTCA 2250 or 4500 or consent of department. Advanced studies in screenwriting. Writing original scripts for film and television. May be repeated once for credit.

FTCA 4251G Advanced Screenwriting 3cr.
Prerequisite: FTCA 2250 or 4500 or consent of department. Advanced studies in screenwriting. Writing original scripts for film and television. May be repeated once for credit.

FTCA 4260 Styles Theatrical Production 3cr.
Analysis and discussion of selected dramatic scripts with emphasis on problems of style and production technique. Attendance at selected theatrical productions is required.

FTCA 4260G Styles Theatrical Production 3cr.
Analysis and discussion of selected dramatic scripts with emphasis on problems of style and production technique. Attendance at selected theatrical productions is required.

FTCA 4265 CAD for Performing Arts 3cr.
Prerequisites: FTCA 2265 or equivalent course work or consent of department. A course for students with a background in technical production, in theater, film, and video. Students will learn how to use the computer to aid in drawing, drafting, designing, and printing their work. The course is structured around the Macintosh computer and will use the MacDraw and CAD software along with plans, sketches, elevations, and a choice of scenic perspectives, lighting plots, or costume patterns. Students will also be allowed to explore CAD alternatives such as those available for IBM and compatible computers. The class will be a combination lecture and laboratory. Graduate students are required to complete original design projects and have a public showing of their work in a portfolio presentation.

FTCA 4265G CAD for Performing Arts 3cr.
Prerequisites: FTCA 2265 or equivalent course work or consent of department. A course for students with a background in technical production, in theater, film, and video. Students will learn how to use the computer to aid in drawing, drafting, designing, and printing their work. The course is structured around the Macintosh computer and will use the MacDraw and CAD software along with plans, sketches, elevations, and a choice of scenic perspectives, lighting plots, or costume patterns. Students will also be allowed to explore CAD alternatives such as those available for IBM and compatible computers. The class will be a combination lecture and laboratory. Graduate students are required to complete original design projects and have a public showing of their work in a portfolio presentation.

FTCA 4300 Advanced Voice for the Actor 3cr.
Prerequisite: FTCA 1300 or consent of department. Advanced work in vocal artistry for the actor. May be repeated once for credit. Attention is given to work in oral characterization ethnic dialects historical modes and styles of delivery and special vocal problems such as the actor-singer and the actor in chorus reading.

FTCA 4300G Advanced Voice for the Actor 3cr.
Prerequisite: FTCA 1300 or consent of department. Advanced work in vocal artistry for the actor. May be repeated once for credit. Attention is given to work in oral characterization ethnic dialects historical modes and styles of delivery and special vocal problems such as the actor-singer and the actor in chorus reading.

FTCA 4301 Voice Stylization for Screen 3cr.
Restricted course: consent of department. Practicum in the creation of stylized voice characterization for digital media. Students will apply characterizations to voiceover and lip-sync recording techniques for animation and television commercials. Two hours lecture and two hours lab.

FTCA 4301G Voice Stylization for Screen 3cr.
Restricted course: consent of department. Practicum in the creation of stylized voice characterization for digital media. Students will apply characterizations to voiceover and lip-sync recording techniques for animation and television commercials. Two hours lecture and two hours lab.

FTCA 4330 Acting IV Styles 3cr.
Prerequisite: FTCA 2300 and 3330 or consent of department. Examination of actor's methods of characterization and script analysis of the major styles including Elizabethan, Ancient Greek, Comedy, and Absurdist, among others. Content of course varies. May be repeated once for credit.

FTCA 4330G Acting IV Styles 3cr.
Prerequisite: FTCA 2300 and 3330 or consent of department. Examination of actor's methods of characterization and script analysis of the major styles including Elizabethan, Ancient Greek, Comedy, and Absurdist, among others. Content of course varies. May be repeated once for credit.

FTCA 4333 Stage Combat for Theatre 3cr.
Prerequisite: FTCA 1300. Performance class that allows the student to learn the fundamentals for hand-to-hand combat techniques. These techniques will be taught within an atmosphere of safety that is essential for the stage.

FTCA 4333G Stage Combat for Theatre 3cr.
Prerequisite: FTCA 1300. Performance class that allows the student to learn the fundamentals for hand-to-hand combat techniques. These techniques will be taught within an atmosphere of safety that is essential for the stage.

FTCA 4335 Audition Techniques 3cr.
Prerequisites: FTCA 2330 or consent of the department. The study of specific audition techniques for stage and screen performers. Emphasis on prepared monologues, cold readings, interviews, picture/resume, and performance contracts. Successful completion if this course satisfies the general degree requirement for oral competency.

FTCA 4335G Audition Techniques 3cr.
Prerequisites: FTCA 2330 or consent of the department. The study of specific audition techniques for stage and screen performers. Emphasis on prepared monologues, cold readings, interviews, picture/resume, and performance contracts. Successful completion if this course satisfies the general degree requirement for oral competency.

FTCA 4380 Directing II Advanced 3cr.
Prerequisite: FTCA 2380 or consent of department. Intensive study of director's methods of rehearsal techniques, script analysis, casting and interpretation. Direction of scenes and/or one-act play. May be repeated once for credit.

FTCA 4380G Directing II Advanced 3cr.
Prerequisite: FTCA 2380 or consent of department. Intensive study of director's methods of rehearsal techniques, script analysis, casting and interpretation. Direction of scenes and/or one-act play. May be repeated once for credit.

FTCA 4400 Development of Theatre 3cr.
A survey of theatre history with an emphasis on the Renaissance to the present.

FTCA 4400G Development of Theatre 3cr.
A survey of theatre history with an emphasis on the Renaissance to the present.

FTCA 4450 Adv Studies of Modern Theatre 3cr.

Consent of department required for non-drama majors. Intensive study of the pioneers of the modern stage, from Chekhov to Strindberg through Brecht. Emphasis on plays in performance.

FTCA 4450G Adv Studies of Modern Theatre 3cr.
Consent of department required for non-drama majors. Intensive study of the pioneers of the modern stage, from Chekhov to Strindberg through Brecht. Emphasis on plays in performance.

FTCA 4455 Contemporary Theatre 3cr.
Consent of department required for non-drama majors. Intensive study of the contemporary theatre, from Artaud and Beckett to the avant-garde stage.

FTCA 4455G Contemporary Theatre 3cr.
Consent of department required for non-drama majors. Intensive study of the contemporary theatre, from Artaud and Beckett to the avant-garde stage.

FTCA 4460 Documentary Production 3cr.
A study of the fundamentals of producing, directing, and writing for the documentary genre. Students develop an understanding of the aesthetic dimensions of documentary production and enhance their craft through the use of film analysis, discussion, production assignments, and critiques.

FTCA 4460G Documentary Production 3cr.
A study of the fundamentals of producing, directing, and writing for the documentary genre. Students develop an understanding of the aesthetic dimensions of documentary production and enhance their craft through the use of film analysis, discussion, production assignments, and critiques.

FTCA 4500 Media Development & Planning 3cr.
Prerequisite: FTCA 2510 or FTCA 2550 or consent of the department. Two hours lecture and two hours lab. Students develop original ideas for a short film from screenplay through preproduction planning. Required for FTCA 4530.

FTCA 4500G Media Development & Planning 3cr.
Prerequisite: FTCA 2510 or FTCA 2550 or consent of the department. Two hours lecture and two hours lab. Students develop original ideas for a short film from screenplay through preproduction planning. Required for FTCA 4530.

FTCA 4510 Film Production 3cr.
Prerequisites: FTCA 2510 or equivalent Professional motion picture production. Advanced problems in double-system motion picture production techniques. Students direct professional 16mm double-systems motion pictures. Two hours lecture and two hours laboratory each week.

FTCA 4510G Film Production 3cr.
Prerequisites: FTCA 2510 or equivalent Professional motion picture production. Advanced problems in double-system motion picture production techniques. Students direct professional 16mm double-systems motion pictures. Two hours lecture and two hours laboratory each week.

FTCA 4520 Film Postproduction 3cr.
Prerequisite: FTCA 4510 or equivalent. 16 mm motion picture production. Students edit, engineer sounds tracks and complete films which were produced in FTCA 4510. Two hours lecture and two hours laboratory.

FTCA 4520G Film Postproduction 3cr.
Prerequisite: FTCA 4510 or equivalent. 16 mm motion picture production. Students edit, engineer sounds tracks and complete films which were produced in FTCA 4510. Two hours lecture and two hours laboratory.

FTCA 4530 Adv Proj in Media Production 3cr.
Offered each semester. Prerequisite: FTCA 4500 and 4520, or 4560 or consent of department. Students will produce a major film or video project, prepare a critical analysis of their production, and present a public screening of the production. Six hours of studio work.

FTCA 4530G Adv Proj in Media Production 3cr.
Offered each semester. Prerequisite: FTCA 4500 and 4520, or 4560 or consent of department. Students will produce a major film or video project, prepare a critical analysis of their production, and present a public screening of the production. Six hours of studio work.

FTCA 4540 Development of Cinema 3cr.
Offered only in the fall semester. A history of the development of the cinema from its beginnings to the present day. Emphasis on the artistic, social, economic, and technical phenomena which have influenced the growth of international films. Important representative films will be screened and discussed.

FTCA 4540G Development of Cinema 3cr.
Offered only in the fall semester. A history of the development of the cinema from its beginnings to the present day. Emphasis on the artistic, social, economic, and technical phenomena which have influenced the growth of international films. Important representative films will be screened and discussed.

FTCA 4545 Film Theory & Criticism 3cr.
Offered only in the spring semester. Basic theories of film modes and structures will be analyzed. Development of bases for the study of film as a communicative and aesthetic form.

FTCA 4545G Film Theory & Criticism 3cr.
Offered only in the spring semester. Basic theories of film modes and structures will be analyzed. Development of bases for the study of film as a communicative and aesthetic form.

FTCA 4550 Cinematography 3cr.
Prerequisite: FTCA 2510 and FTCA 4510 or consent of the department. Two hours lecture and two hours lab. Advanced studies in lighting and camera for film.

FTCA 4550G Cinematography 3cr.
Prerequisite: FTCA 2510 and FTCA 4510 or consent of the department. Two hours lecture and two hours lab. Advanced studies in lighting and camera for film.

FTCA 4551 Spring Film Crew 1cr.
Students crew on a group film project that is led by advanced students and industry professionals, including UNO faculty members. Responsibilities are limited to the production phase of the shoot that normally occurs during spring break. The course may be repeated three times for credit.

FTCA 4551G Spring Film Crew 1cr.
Students crew on a group film project that is led by advanced students and industry professionals, including UNO faculty members. Responsibilities are limited to the production phase of the shoot that normally occurs during spring break. The course may be repeated three times for credit.

FTCA 4555 Spring Film Production 3cr.
Students crew on a group film project that is led by advanced students and industry professionals, including UNO faculty members. Students are expected to participate in planning and management of the film and assume responsibility in the annual department production . The course may be repeated three times for credit.

FTCA 4555G Spring Film Production 3cr.
Students crew on a group film project that is led by advanced students and industry professionals, including UNO faculty members. Students are expected to participate in planning and management of the film and assume responsibility in the annual department

production . The course may be repeated three times for credit.

FTCA 4560 Adv Television Production 3cr.
Offered only in the spring semester. Prerequisite: FTCA 2550. Advanced problems in television production with special consideration to the work of the television producer-director. Attention will be paid to the types of TV informational programs including news programs, documentaries, broadcast magazines, interviews, press conferences, talk shows, and instructional programs.

FTCA 4560G Adv Television Production 3cr.
Offered only in the spring semester. Prerequisite: FTCA 2550. Advanced problems in television production with special consideration to the work of the television producer-director. Attention will be paid to the types of TV informational programs including news programs, documentaries, broadcast magazines, interviews, press conferences, talk shows, and instructional programs.

FTCA 4565 Digitl Theory Appl Film/Video 3cr.
Prerequisite: FTCA 2510 or consent of department. The practicall application of advanced technical theories and emerging technologies fundamental to the creation and manipulation of digital audio and video projects. Two hours lecture and two hours lab.

FTCA 4565G Digitl Theory Appl Film/Video 3cr.
Prerequisite: FTCA 2510 or consent of department. The practicall application of advanced technical theories and emerging technologies fundamental to the creation and manipulation of digital audio and video projects. Two hours lecture and two hours lab.

FTCA 4566 Production Sound for Film 3cr.
Prerequisite: FTCA 2510 and FTCA 4510 or consent of the department. Two hours lecture and two hours lab. Advanced studies in production sound for film, including digital recording technology, understanding time code, and advanced miking and production mixing techniques.

FTCA 4566G Production Sound for Film 3cr.
Prerequisite: FTCA 2510 and FTCA 4510 or consent of the department. Two hours lecture and two hours lab. Advanced studies in production sound for film, including digital recording technology, understanding time code, and advanced miking and production mixing techniques.

FTCA 4567 Post Prod Sound Film Video 3cr.
Prerequisite: FTCA 2510, FTCA 4510, and FTCA 4520, or consent of the department. Two hours lecture and two hours lab. Advanced studies in post production sound technology and technique.

FTCA 4567G Post Prod Sound Film Video 3cr.
Prerequisite: FTCA 2510, FTCA 4510, and FTCA 4520, or consent of the department. Two hours lecture and two hours lab. Advanced studies in post production sound technology and technique.

FTCA 4568 Special Topics Visual Effects 3cr.
Prerequisite: FTCA 2510, FTCA 4565 and the consent of the department. An intensive exploration of the current and emerging technology and software necessary for the creation of the current media visual effects. May be repeated.

FTCA 4568G Special Topics Visual Effects 3cr.
Prerequisite: FTCA 2510, FTCA 4565 and the consent of the department. An intensive exploration of the current and emerging technology and software necessary for the creation of the current media visual effects. May be repeated.

FTCA 4570 Acting for Camera 3cr.
Prerequisite: FTCA 1300 or consent of department. A study in acting before the camera lens emphasizing moment-to-moment techniques. Two hours lecture and two hours lab. (May be repeated once for credit.)

FTCA 4570G Acting for Camera 3cr.
Prerequisite: FTCA 1300 or consent of department. A study in acting before the camera lens emphasizing moment-to-moment techniques. Two hours lecture and two hours lab. (May be repeated once for credit.)

FTCA 4580 Film Directing 3cr.
Prerequisite: FTCA 2510 and 4510 or consent of the department. Advanced training in single camera directing techniques with emphasis on filming the narrative script and on the director's relationship with the actor. Two hours of lecture and two hours of lab.

FTCA 4580G Film Directing 3cr.
Prerequisite: FTCA 2510 and 4510 or consent of the department. Advanced training in single camera directing techniques with emphasis on filming the narrative script and on the director's relationship with the actor. Two hours of lecture and two hours of lab.

FTCA 4591 Film Styles & Genres 3cr.
Prerequisites: FTCA 4545 or consent of department. An examination of the Motion Picture in terms of various groupings such as Genre, Style, and Authorship. Topic will differ from semester to semester. A laboratory fee is required for this course. May be repeated once for credit.

FTCA 4591G Film Styles & Genres 3cr.
Prerequisites: FTCA 4545 or consent of department. An examination of the Motion Picture in terms of various groupings such as Genre, Style, and Authorship. Topic will differ from semester to semester. A laboratory fee is required for this course. May be repeated once for credit.

FTCA 4670 Mass Media & Law 3cr.
Offered only in the fall semester. Social, ethical, and legal responsibilities of the mass media and entertainment arts.

FTCA 4670G Mass Media & Law 3cr.
Offered only in the fall semester. Social, ethical, and legal responsibilities of the mass media and entertainment arts.

FTCA 4675 Mass Media in Society 3cr.
Offered only in the spring semester. Prerequisite: FTCA 1600 or consent of department. Mass media as a force in society. Emphasis on cultural, economic, political, and social effects.

FTCA 4675G Mass Media in Society 3cr.
Offered only in the spring semester. Prerequisite: FTCA 1600 or consent of department. Mass media as a force in society. Emphasis on cultural, economic, political, and social effects.

FTCA 4696 Washington Center Internship 6cr.
The Washington, D.C. Internship Program is offered in cooperation with the Washington Center for Internships and Academic Seminars. Students of junior-level or higher standing and a grade-point average of 2.5 or better are eligible to participate in the Program. The program is conducted in Washington, D.C. and consists of an internship of four-and-a-half workdays per week, a three-hour course one night a week, and a major research paper. Participants can earn 12 credit hours during a fall or spring semester (nine hours in summer).

FTCA 4696G Washington Center Internship 6cr.
The Washington, D.C. Internship Program is offered in cooperation with the Washington Center for Internships and Academic Seminars. Students of junior-level or higher standing and a grade-point average of 2.5 or better are eligible to participate in the Program. The program is conducted in Washington, D.C. and consists of an internship of four-and-a-half workdays per week, a three-hour course one night a week, and a major research paper.

Participants can earn 12 credit hours during a fall or spring semester (nine hours in summer).

FTCA 4697 Washington Center Internship 3cr.
The Washington, D.C. Internship Program is offered in cooperation with the Washington Center for Internships and Academic Seminars. Students of junior-level or higher standing and a grade-point average of 2.5 or better are eligible to participate in the Program. The program is conducted in Washington, D.C. and consists of an internship of four-and-a-half workdays per week, a three-hour course one night a week, and a major research paper. Participants can earn 12 credit hours during a fall or spring semester (nine hours in summer).

FTCA 4697G Washington Center Internship 3cr.
The Washington, D.C. Internship Program is offered in cooperation with the Washington Center for Internships and Academic Seminars. Students of junior-level or higher standing and a grade-point average of 2.5 or better are eligible to participate in the Program. The program is conducted in Washington, D.C. and consists of an internship of four-and-a-half workdays per week, a three-hour course one night a week, and a major research paper. Participants can earn 12 credit hours during a fall or spring semester (nine hours in summer).

FTCA 4698 Washington Center Ind Research 3cr.
The Washington, D.C. Internship Program is offered in cooperation with the Washington Center for Internships and Academic Seminars. Students of junior-level or higher standing and a grade-point average of 2.5 or better are eligible to participate in the Program. The program is conducted in Washington, D.C. and consists of an internship of four-and-a-half workdays per week, a three-hour course one night a week, and a major research paper. Participants can earn 12 credit hours during a fall or spring semester (nine hours in summer).

FTCA 4698G Washington Center Ind Research 3cr.
The Washington, D.C. Internship Program is offered in cooperation with the Washington Center for Internships and Academic Seminars. Students of junior-level or higher standing and a grade-point average of 2.5 or better are eligible to participate in the Program. The program is conducted in Washington, D.C. and consists of an internship of four-and-a-half workdays per week, a three-hour course one night a week, and a major research paper. Participants can earn 12 credit hours during a fall or spring semester (nine hours in summer).

FTCA 4700 Advanced Journalism 3cr.
Prerequisites: JOUR 2700 or consent of department. Writing-intensive study in advanced news reporting, news writing, and news editing.

FTCA 4700G Advanced Journalism 3cr.
Prerequisites: JOUR 2700 or consent of department. Writing-intensive study in advanced news reporting, news writing, and news editing.

FTCA 4830 Advanced Stage Movement 3cr.
Study and exercise in the techniques of effective stage movement including compositional creativity, flexibility, and imagination to develop stage presence. (May be repeated once for credit.)

FTCA 4830G Advanced Stage Movement 3cr.
Study and exercise in the techniques of effective stage movement including compositional creativity, flexibility, and imagination to develop stage presence. (May be repeated once for credit.)

FTCA 4831 Advanced Movement Applications 3cr.
Prerequisite: consent of department. Practicum in character development for stage and screen through advanced physicalization techniques and computer-based motion capture technology. Students will create live and recorded movement characterizations for film/video special effects, 3D animation, and live stage productions. Two hours lecture and two hours lab.

FTCA 4831G Advanced Movement Applications 3cr.
Prerequisite: consent of department. Practicum in character development for stage and screen through advanced physicalization techniques and computer-based motion capture technology. Students will create live and recorded movement characterizations for film/video special effects, 3D animation, and live stage productions. Two hours lecture and two hours lab.

FTCA 4900 Internship in FTCA 3cr.
Offered in the fall and spring semesters only. Prerequisite: consent of department. Each semester the department makes available a limited number of internships with theatres, radio and television stations, film studios, the city of New Orleans, and other drama and communications-related agencies. Interns usually work 15 hours a week at times mutually agreeable to the individual and the agency. In addition, interns must attend discussion sessions on campus and complete written assignments. The intern's work will be evaluated by both the agency supervisor and the course instructor.

FTCA 4900G Internship in FTCA 3cr.
Offered in the fall and spring semesters only. Prerequisite: consent of department. Each semester the department makes available a limited number of internships with theatres, radio and television stations, film studios, the city of New Orleans, and other drama and communications-related agencies. Interns usually work 15 hours a week at times mutually agreeable to the individual and the agency. In addition, interns must attend discussion sessions on campus and complete written assignments. The intern's work will be evaluated by both the agency supervisor and the course instructor.

FTCA 6000 Practicum in Research 3cr.
Practical work in research tools in preparation for written thesis requirements.

FTCA 6001 Practicum in Production 3cr.
Participation in weekly seminar and independent practical work in acting, design, directing, stage management, cinematography, and television.

FTCA 6005 Graduate Studies Orientation 0cr.
No credit. Required on-line colloquium for all FTCA graduate students each semester until graduation. Electronic communication and dispersal of information via blackboard that is pertinent to first, second, and third year graduate students in the department.

FTCA 6010 Overview Theatre Arts 3cr.
Prerequisite: admission to the Master of Arts in Arts Administration or consent of department. Included in the survey will be aesthetics of the theatre, the types of theatre organizations, division of responsibilities within the organization, and problems associated with the management of a theatre. Not open to drama and communications graduate students. For students with little or no background in theatre.

FTCA 6020 Form & Idea in Media 3cr.
An exploration of the relationship between the creative idea, the form of its expression and the medium for its presentation. Examples will be studied from theatre, film and television. The collaboration of the contributing artists will be investigated and the process of script analysis, directing methods, and production techniques for the different media will be compared and contrasted.

FTCA 6040 Performance and Direction 3cr.

Prerequisite: Consent of department. This practicum is designed to encourage and expand creative and collaborative opportunities between theatre and film artists. By focusing on selected interdisciplinary scene work, the course will identify and explore the shared principles utilized in the acting and directing process of stage and screen,

FTCA 6060 Concept, Conflict & Character 3cr.
Prerequisite: Consent of department. A study of the fundamentals of script analysis as they relate to the director's formulation of concept, identification of conflicy and understanding of character behavior. Focusing on selected film and play scripts, lectures and seminars will emphasize the application of similar methodologies employed by directors and actors in both film and theatre.

FTCA 6090 Independent Study 3cr.
Prerequisite: consent of department. Specialized study and research on some aspect of drama, film, or television. This course may be repeated up to six hours.

FTCA 6100 Design Stage Screen & TV 3cr.
Prerequisite: consent of department. Specialized study and research on some aspect of drama, film, or television. This course may be repeated up to six hours.

FTCA 6110 Seminar Scene Design 3cr.
Advanced studies, research, and practice of scene design for the theatre, which will include portfolio development, study of contemporary trends, examination of current job opportunities and requirements, and designing scenery for a specific production. May be repeated once for credit.

FTCA 6120 Scene Painting 3cr.
Prerequisite: FTCA 4110 and 4120. Through studio projects students will develop skills in painting of architectural and natural styles of stage scenery. Four to six laboratory hours per week are required.

FTCA 6125 Dev of Style and Form 3cr.
A study of the history of theatrical design styles including architectural form, from Greek influences to the present. Individual research projects and presentations relating to periods and styles of art will be required.

FTCA 6135 Rendering Techniques 3cr.
An exploration of styles and techniques for rendering designs for scenery, costumes, and lights. May be repeated once for credit.

FTCA 6140 Sem in Theatrical Costuming 3cr.
Studies and practice in modern costume techniques which will include portfolio preparation, contemporary techniques, and a survey of current job practices and marketability. May be repeated once for credit.

FTCA 6150 Development of Fashion 3cr.
The study of Western fashion from the Greek period to the late 19th Century. Emphsis on explring why and how fashion changed and developed and how society, fashion and culture influenced each other. The shapes, silhouettes and lines of clothing from each period will be studied.

FTCA 6170 Seminar Lighting Design 3cr.
Studies and practice in modern lighting techniques, which will include portfolio preparation, contemporary techniques in design, and a survey of current job practices and marketability. May be repeated once for credit.

FTCA 6200 Seminar in Playwriting 3cr.
Prerequisite: FTCA 4200 or consent of department. Studies and practice in writing plays for the live theatre stage. Students should have written at least one play before enrolling in this class. May be repeated for credit.

FTCA 6207 Intense Seminar Playwriting 3cr.
Prerequisite: FTCA 4200 or consent of department. Studies and practice in writing plays for the live theatre stage, taught in an intensive (short term) format in residence. Students should have written at least one play before enrolling in this class. May be repeated for credit.

FTCA 6209 Remote Seminar Playwriting 3cr.
Prerequisite: FTCA 4200 or consent of the department. Studies in practice in writing plays for the live theatre stage taught via distance learning techniques. Students should have written at least one play before enrolling in this class. May be repeated for credit.

FTCA 6250 Seminar in Screenwriting 3cr.
Prerequisite: FTCA 4500 or 4251 or consent of department. Studies and practice in writing scripts for film and television. Students should have written at least one screenplay before enrolling in this class. May be repeated once for credit.

FTCA 6257 Intense Seminar Screenwriting 3cr.
Prerequisite: FTCA 4200 or 4521 or consent of department. Studies and practice in writing scripts for film and television taught in an intensive (short term) format in residence. Students should have written at least one screenplay before enrolling in this class. May be repeated for credit.

FTCA 6259 Remote Seminar Screenwriting 3cr.
Prerequisite: FTCA 4200 or FTCA 4521 or consent of department. Studies and practice in writing scripts for film and television, taught via distance learning techniques. Students should have written at least one screenplay before enrolling in this class. May be repeated once for credit.

FTCA 6330 Acting 3cr.
Prerequisite: consent of department. Designed for students in the MFA Performance Program. Intensive training in characterization and performance techniques. Content of course varies per offering. May be repeated up to three times for credit.

FTCA 6380 Directing 3cr.
Prerequisite: consent of department. Designed for students in the MFA Performance Program. Intensive training in directing techniques. May include technical assignments in department productions. Direction of one-act or full length play in laboratory production. May be repeated twice for credit.

FTCA 6420 Prob in Performing or Vis Arts 3cr.
The application of mise-en-scene analysis techniques to theatre film or video productions.

FTCA 6460 Aesthetics of Script Analysis 3cr.
Intensive study of selected scripts as the basis of forming aesthetic theories of analysis. Students are required to compare written scripts with productions in theatre or film.

FTCA 6580 Directing for Media 3cr.

FTCA 6600 Mass Communications 3cr.
Study of the meaning and impact of mass communications on selected areas of human activity.

FTCA 6601 Mass Communications 3cr.
Study of the meaning and impact of mass communications on selected areas of human activity.

FTCA 6610 Seminar in Film Arts 3cr.
One-time Waiver.

FTCA 6690 Internship in Research 3cr.
This course is designed to give graduate students direct experience in conducting research under the guidance of a faculty supervisor.

The student will apprentice in a directed research project designed for a specific outcome such as a conference paper, a publication, or the pre-production research for a documentary film. The student is expected to devote 12 hours per week in research tasks for a total of 180 hours per semester. The course can be repeated once for credit. Offered fall and spring semesters.

FTCA 6830 Seminar in Stage Movement 3cr.
An examination and practice of various techniques of stage movement for the performer. May include dance, gymnastics, and stage combat. Material varies each semester. May be repeated once for credit.

FTCA 6900 Graduate Internship 3cr.
This Graduate Internship is offered within the Department's film and theatre programs. Candidates serve in a leadership capacity in production or administrative activity directly related to the Department's MFA production program. The student is expected to devote 12 hours per week in production related responsibilities. The course can be repeated once for credit.

FTCA 6910 Studio I 3cr.
Prerequisite: consent of department. Independent work in theatrical or media production.

FTCA 6911 Studio II 3cr.
Prerequisite: consent of department. Independent work in theatrical or media production.

FTCA 6912 Studio III 3cr.
Prerequisite: consent of department. Independent work in theatrical or media production.

FTCA 7000 Thesis Research 1cr. min / 9 cr. max
Creative or written project. To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

FTCA 7040 Examination or Thesis Only 0cr.
Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

Finance

FIN 1330 Personal Finance 3cr.
Offered each semester. (Not open to students enrolled in the College of Business Administration who have completed 30 semester hours or more of university credit.) Survey course that covers the following areas: a financial health program, budgeting, consumer protection, housing, insurance program, investment portfolio, other potential investments, taxes, and estate planning. The impact of personal finance on the economy will also be examined.

FIN 2302 Introduction to Investing 3cr.
Offered each semester. The course provides an overview of investment opportunities in financial instruments such as common stocks, preferred stocks, government and corporate bonds, rights, warrants, convertibles, options, futures, and mutual funds.

FIN 2335 Principles of Real Estate 3cr.
Offered each semester. The principles of purchasing, owning, and operating real estate relative to interest in realty, liens, contracts, deeds, titles, leases, brokerage, and management.

FIN 3099 Senior Honors Thesis 1-6cr.
Offered each semester. Prerequisite: consent of department and Honors Program Director. Senior honors thesis under the direction of a faculty member. Section number will correspond with credit to be earned. Must be repeated for a total of six credit hours to be eligible to graduate with honors.

FIN 3300 Principles of Financial Management 3cr.
Offered each semester. Prerequisites: ECON 1203 or ECON 2200. ACCT 2100 is recommended. Introduction to investment, financing, and dividend decisions of business firms. Topics include valuation, capital budgeting, working capital management, capital structure and cost of capital, sources of financing, and dividend policy.

FIN 3301 Small Business Finance 3cr.
This course applies the skills of financial analysis to the particular problem of financing new ventures and existing small businesses. Specific topics covered include legal forms of organization and how they affect financing alternatives, ratio analysis, identifying and evaluating sources of small business financing, buying existing small businesses, financing growth and diversification, and dealing with bankruptcy and liquidation. Emphasis is placed on the evaluation and preparation of financing packages for securing financing from banks, ventured capital investors and government agencies.

FIN 3302 Investments 3cr.
Offered each semester. Prerequisite: FIN 3300 or ECON 2000. Fundamental information regarding the organization, regulation, and performance of securities in the various markets and financial instruments.

FIN 3303 Financial Institutions 3cr.
Prerequisite: ECON 2221. Study of the impact of financial institutions on both the total level of economic activity and the allocation of funds to various sectors of the economy. Analysis of the intermediary process and the determination of interest rates in the financial markets.

FIN 3321 Bank Administration 3cr.
Prerequisites: ECON 2221 and FIN 3300. The financial management of the commercial bank from the perspective of senior management. An internal analysis of bank portfolio construction, bank capital structure, the lending function, and other decisions of the financial manager that affect the value of the bank.

FIN 3355 Principles of Insurance 3cr.
Offered each semester. A course focused upon the consumer interest in an interdisciplinary approach to the subjects of pure risk and decision-making with emphasis upon planning family insurance programs. Principal topics include the impact on the family of economic risk, the private insurance mechanism, government benefit programs, and specific types of insurance coverage of importance to the family. Specific attention is focused upon such financial instruments as life insurance, health insurance, automobile insurance, and insurance for the home. Consumer issues related to the private insurance mechanism and government benefit programs are considered. The roles of economic facts and consumer attitudes in making decisions among alternatives also will be explored.

FIN 3366 Income Property Analysis 3cr.
A study of valuation and appraisal methods for commercial, industrial, residential, and other income properties. Included will be the problems of real estate development, redevelopment, and property taxation.

FIN 3368 Real Estate Finance 3cr.
Issues and problems in the administration of real estate mortgages; sources and uses of mortgage funds, including land acquisition, construction, permanent, and secondary financing; cost of funds, mortgage yields and accompanying risk; federal and state role in mortgage markets.

FIN 3370 Residential Real Estate Development 3cr.

A survey of major topics in valuation of residential real estate. Topics include real estate valuation, supply and demand factors affecting land use, economics of land use, government and other external forces, affecting land use, planned unit development, historic properties, and major financial instruments.

FIN 3391 Undergraduate Directed Individual Study 3cr.
(ECON 4291 and FIN 4391 are cross-listed) Offered each semester. Prerequisites: Approval of the directed individual study by the department chair and the supervising professor is required prior to registration. The student should refer to the College of Business Administration Policy On Undergraduate Directed Individual Study available in the Department of Economics and Finance. This course is arranged individually in order to provide latitude for specialized study and research under the direction of a faculty member. Progress reports, readings, conferences, and a research paper are required. May be repeated.

FIN 3392 Internship in Finance 3cr.
Prerequisites: BA 2780, QMBE 2786, and FIN 3300 and consent of department. Student intern is engaged in ten hours per week at the site of an assigned participating organization which directs the intern in a specific research project. Students wishing to take this course should apply a semester in advance since enrollment is limited by internships available.

FIN 3595 Academic Year Abroad: Special Topics in Finance 3cr.
This course is only offered through UNO's Academic Year Abroad (AYA) in Innsbruck Austria and can be repeated once for credit.

FIN 3999 Special Topics in Finance 3cr.
Prerequisite: Consent of department. Topic will vary from semester to semester. May be repeated once for credit.

FIN 4222 Cash and Liquidity Management 3cr.
Prerequisite: FIN 3300. An examination of the theory and practice of working capital management. Topics include cash management, credit and accounts receivable management, collections and cash concentrations, short-term investments and borrowing, forecasting cash flows, financial risk management, and international cash management.

FIN 4232 Capital Budgeting 3cr.
Prerequisite: FIN 3300 or ECON 2000. An examination of the analytical methods used to evaluate the economic worth of capital investments. The course focuses on capital budgeting under uncertainty and in imperfect markets and includes topics such as capital rationing, inflation, leasing, and strategic management.

FIN 4242 The Economics of State and Local Finance 3cr.
Prerequisite: ECON 1203 or 2200. This is a course designed to analyze the functions of state and local governments relating to the provision of public goods. The demand for and the supply of public goods as well as the production of these goods will be examined. Optimal methods of financing these government services will be investigated. The tax incidence and the equity of various financing forms will be presented. Grants-in-aid, revenue sharing, and other federal policies affecting intergovernmental relations in a federal system will also be analyzed.

FIN 4301 Financial Theory 3cr.
Offered each semester. Prerequisite: FIN 3300. Analysis of the financial theory of the business enterprise from the viewpoint of an internal decision-maker. In addition to the study of theories themselves, the course will cover empirical evidence as tests of theories. Topics to be covered will include: risk and uncertainty in investment and financial decisions, asset and security valuation theory, cost of capital and capital structure theory, dividend decisions, capital budgeting, and portfolio analysis. Students may not receive graduate credit for both FIN 4301 and FIN 6301.

FIN 4304 Finance Capstone 3cr.
Offered each semester. Prerequisites are Finance 3300, Finance 3302 or Finance 3321, and senior standing. Emphasis on financial decision-making that requires integrating the core finance areas of corporate finance, investments, portfolio management, and financial institutions. This course is not open to graduate students.

FIN 4305 Business Cycles and Forecasting 3cr.
(ECON 4205 and FIN 4305 are cross-listed) Prerequisite: ECON 1203, 1204, and QMBE 2786. Univariate forecasting models; multiple time series model building. Applications to business trends and business cycles.

FIN 4307 Portfolio Analysis 3cr.
Prerequisite: FIN 3302 and QMBE 2786, or consent of department. Demonstration of portfolio analysis techniques used by individuals and institutions. The course will utilize the computer to demonstrate and explore the various implications of portfolio analysis.

FIN 4308 Speculative Markets: Options and Futures 3cr.
Prerequisite: FIN 3302 or consent of department. An examination of the organization structure of speculative markets and the performance of speculative assets. Topics include the institutional nature of options and futures markets; investment and hedging strategies; and the valuation of options on stocks, interest rates, and futures contracts as well as the analysis of commodity, interest rate, stock index, and foreign exchange futures prices.

FIN 4322 The Money and Capital Markets 3cr.
Prerequisite: ECON 2221. The money and capital markets their composition regulation and operations; their influence in modern business; sources and uses of funds; commercial paper; acceptances; bank loans; call loans; negotiable certificates of deposit; investment banking and the Securities and Exchange Commission; the open market functions and activities of the Federal Reserve System.

FIN 4354 Property and Liability Insurance 3cr.
Prerequisite: FIN 3355. A functional course in property and liability insurance including areas of underwriting, reinsurance, investment, financial statement analysis, mathematical concepts of rate-making and reserves, types of insurance carriers, policy analysis, and government and social policy implications. Not for graduate credit.

FIN 4355 Life and Health Insurance 3cr.
Prerequisite: FIN 3355. Functions and uses of life and health insurance, contract analysis, legal aspects, mathematics of life and health insurance, selection and classification of life and health risks, industrial and other forms of life and health insurance, and business uses of life insurance. A significant part of the course is the role and uses of life insurance in personal financial planning.

FIN 4362 International Finance 3cr.
(ECON 4262 and FIN 4362 are cross-listed) Prerequisite: ECON 1203 and 1204 or ECON 2200, or FIN 3300. This course examines the financial operations of the firm from an international point of view. It draws upon topics such as exchange rate determination, foreign exchange exposures (risks) for the multinational firm and techniques to hedge such exposures, international bond, equity and currency markets, trade documentation, and international capital budgeting. Students may not receive graduate credit for both ECON 4262, FIN 4362, and FIN 6367.

FIN 4370 Real Estate Feasibility and Site Location Analysis 3cr.
Prerequisite: one of the following: FIN 2335 or consent of department. A survey of the physical characteristics, market, economic, and financial considerations which enter into the decision process for selecting business locations; allocating land resources among a

number of possible revenue producing uses, and analysis of locational considerations on the profitability of the firm. An extensive field research project is an integral part of the course.

FIN 4400 Financial Foundations for Managers 3cr.
An approach to finance principles and practice intended for managerial use. Emphasis will be placed on applying finance principles in managerial decision-making as it concerns the investment, financing, and dividend decisions of business firms. Not open to College of Business undergraduate majors. This course may not be taken for graduate credit.

FIN 4696 Washington Center Internship 3-6cr.
The Washington, D.C. Internship Program is offered in cooperation with the Washington Center for Internships and Academic Seminars. Students of junior-level or higher standing and a grade-point average of 2.5 or better are eligible to participate in the Program. The program is conducted in Washington, D.C. and consists of an internship of four-and-a-half workdays per week, a three-hour course one night a week, and a major research paper. Participants can earn 12 credit hours during a fall or spring semester (nine hours in summer). Not for graduate credit.

FIN 6300 Financial Administration 3cr.
Offered each semester. Prerequisite: QMBE 2786 and 2787, or QMBE 4400 and FIN 3300, or FIN 4400 and credit for or concurrent registration in ACCT 6130. Study of advanced principles and practices in the administration of the financial affairs of business enterprises. Emphasis is on efficient use of financial resources, evaluation of investment project capital budgeting, and maintenance of creditworthiness.

FIN 6301 Corporate Financial 3cr.
(Students may not receive graduate credit for both FIN 4301 and FIN 6301) Prerequisites: QMBE 2786 and 2787, or QMBE 4400 and FIN 3300, or FIN 4400 and credit for or concurrent registration in ACCT 6130.The course provides a comprehensive overview from managerial perspective of such topics as theory of uncertainty, valuations (including warrants and convertibles), advanced capital structure theory and cost of capital, dividend theory, mergers, restructuring and corporate control, agency theory, and applied issues in corporate finance (including leasing, leveraged buyouts, and interest rate swaps).

FIN 6302 Investments 3cr.
Prerequisite: FIN 6300 or 6301. The course provides an analysis of such topics as portfolio theory, capital asset pricing models, Arbitrage Pricing Theory, efficient capital market theory, option pricing theory, futures contracts and markets, and the securities market.

FIN 6303 Financial Markets and Institutions 3cr.
Prerequisite: FIN 6300 or 6301. An overview of the processes at work within the financial system, its major participants, its procedures for assessing and pricing risk, and its role in the allocation of credit to different financial sectors.

FIN 6309 International Financial Management 3cr.
Prerequisite: FIN 6300 or 6301 or enrollment in the Master of Science program in Accounting. Geared for the MBA or other graduate students interested in a graduate level course emphasizing the managerial aspects of international finance. Students enrolled in the Ph.D. program in Financial Economics cannot use this course in their graduate program of study, and no students will receive graduate credit for both ECON 4262/FIN 4362 and Finance 6309.

FIN 6311 Theory of Corporate Finance 3cr.
Prerequisites: Must be a Ph.D. in Financial Economics Student. The course is intended to provide students with a strong foundation for understanding the theoretical and empirical concepts in modern corporate finance. The topics covered in the course include valuation under risk and uncertainty, advanced capital budgeting topics, market efficiency, agency theory and signaling under information asymmetry capital structure theory, dividend policy, corporate control and financial distress. This is a core course for Ph.D. students in financial economics and is not open to MBA students.

FIN 6312 Investment Theory 3cr.
Prerequisites: Must be a Ph.D. in Financial Economics Student. This course is designed to provide the Ph.D. student with a solid foundation in modern investment theory. This course takes a theoretical approach to the understanding of the following issues: portfolio theory, capital asset pricing model, arbitrage pricing, term structure of interest rates, future options and market efficiency. The review of classic theoretical and supporting empirical finance literature will be emphasized. This course may only be taken by Ph.D. students.

FIN 6313 Seminar in Financial Markets and Institutions 3cr.
Prerequisites: FIN 6303 and must be a Ph.D. in Financial Economics Student. This course examines the role of financial intermediaries in resolving informational asymmetries in the credit market and promoting economic development. The topics covered in this course include theory of financial intermediation, theory and management of interest rate and exchange rate risk, banking and financial distress, bank regulation and deposit Insurance Contract, off-balance sheet banking system, efficiency of banking system, and financial theory of insurance industry.

FIN 6314 Seminar in Corporate Finance 3cr.
Prerequisite: FIN 6301. The purpose of the course is to expose the advanced student to a direct reading of journal articles and book chapters in classic works as well as more recent developments in corporate financial theory.

FIN 6315 Seminar in Investments 3cr.
Prerequisite: FIN 6302. This course exposes students to recent journal articles as well as classic works. Topics selected will be at the discretion of the instructor. Topics will be selected from portfolio theory, capital asset pricing models and the Arbitrage Pricing Theory, efficient capital market theory, option pricing theory, futures contracts and markets, and the securities market.

FIN 6317 Theories and Empirical Evidence in Financial Economics 3cr.
Prerequisite: completion of the core courses for the Ph.D. program in Financial Economics. An advanced theoretical and empirical analysis of current subjects in financial economics linking theoretical and empirical research. The course will heavily emphasize the completion of a research paper leading toward dissertation research.

FIN 6318 Derivative Securities 3cr.
Prerequisite: FIN 6312. An analysis of derivative financial instruments including forward contracts, futures contracts on commodities, financial assets and indexes, option contracts on financial assets, option contracts on futures, and swap contracts.

FIN 6319 Seminar in International Finance 3cr.
Prerequisite: FIN 6311, FIN 6312, and QMBE 6282. This course examines at an accelerated pace using advanced textbook and journal article literature the classic and more recent developments in international finance. The topics will center around the theory of exchange rate determination and uncertainty, and its implications for the investment choices (international capital budgeting) and foreign exchange risk (exposure) of the multinational money and capital market, to hedge exposure for international projects, invest-

ments, and portfolios will also be presented.

FIN 6321 Commercial Bank Management 3cr.
Prerequisites: ECON 2221 and FIN 3300. An examination of the role of commercial banking in the economy and advanced theoretical and applied analysis of commercial bank management.

FIN 6333 Real Estate Finance and Market Feasibility Analysis 3cr.
Prerequisite: one of the following: FIN 6300, URBN 6165, FIN 3366, FIN 3368 or the consent of the department. A survey of the physical characteristics and the market, economic, and financial considerations which enter into the decision process for selecting business locations. Addresses the allocation of land resources among a number of possible revenue-producing uses and the impact of location considerations on the profitability of the firm. An extensive field research project is an integral part of the course.

FIN 6350 Heath Care Financial Management 3cr.
Prerequisite: BA 6014. The purpose of this course is to examine the role of the financial manager in acquiring and utilizing funds for the operation of a health care enterprise. Financial decisions of the manager — planning and forecasting, long-term investment decisions, financing decisions, and short-term asset management decisions — will be carefully evaluated in light of the enterprise's goal to maximize its value. Financial principles will be applied to firms involved in health care business. A student cannot receive degree credit for both FIN 6300 and FIN 6350.

FIN 6355 Seminar in Risk Management and Insurance 3cr.
Prerequisite: FIN 6300 or 6301. A comprehensive study of management of non-speculative risks in the business enterprise with emphasis on insurance as a tool. Topics covered include concepts of risk and insurance; risk analysis; treatment of risk control and financing; analysis of insurance contracts, group insurance and pensions; and investigation of insurance market.

FIN 6391 Directed Individual Studies 3cr.
Prerequisite: consent of department. This tutorial is arranged individually in order to provide latitude for specialized study and research. May be repeated for credit.

FIN 6394 Internship in Finance 3cr.
Prerequisite: 15 hours of MBA courses with at least a 3.0 GPA and consent of the department. The student will work a minimum of 150 hours during the semester at the site of a participating organization that directs the intern in a specific finance project. Students must in addition engage in extensive outside research in the subject area related to their internship and submit a substantial report on this research reflecting a graduate level of learning. Enrollment is limited. May not be repeated for credit.

FIN 6395 Special Topics in Finance 1-4cr.
Description: An intensive study of selected special topics in Finance. Topics will vary based on contemporary needs as dictated by the discipline as well as the interests of the students and the instructor. Section number will correspond with credit hours to be earned.

FIN 6635 Seminar in Financial and Economic Analysis for Real Estate 3cr.
Prerequisites: FIN 6300 or 6301, or URBN 6165, or consent of the department. An intensive study of real estate appraisal and evaluation, supply and demand factors affecting land use, the economics of land use, taxes and land use decisions, government and other external forces affecting land use, real estate investment and development decisions, and property analysis for investment decisions.

FIN 6670 Seminar in Mortgage Markets and Real Estate Finance 3cr.
Prerequisites: FIN 6300 or 6301, or URBN 6165, or consent of the department. Topics in primary and secondary market behavior and underwriting, mortgage loan underwriting, mortgage futures and options, tax exempt mortgage funds, interim and development loan analysis, and cash flow analyses.

FIN 7050 Dissertation Research 1-9cr.
(ECON 7050 and FIN 7050 are cross-listed)Preparation of dissertation by Ph.D. candidate under direction of major professor and dissertation committee. Section number will correspond with credit to be earned. To be repeated for credit until dissertation is accepted.

FIN 7051 Dissertation Workshop 1cr.
(ECON 7051 and FIN 7051 are cross-listed) Prerequisite: Consent of the department. This is a required course for all third year Ph. D. Students in Financial Economics. Students will present progress reports on their dissertation research for critique by faculty and other graduate students.

Fine Arts

FA 1005 Monuments of World Art 3cr.
Offered each semester. Open to all undergraduates. An introduction to the visual arts and the history of art through the study of selected important monuments and works of art from both the Eastern and Western traditions. Lectures and reading assignments will emphasize the interpretation of works of art within their cultural context.

FA 1010 Art Appreciation 3cr.
Offered each semester. Open to all undergraduates. An introduction to art in which the visual elements and principles are examined through a study of the key monuments in the history of art from cave paintings to the present. Important styles of painting, sculpture, architecture, and twentieth century media are explored with attention to the personalities of the artists and the cultures in which they lived.

FA 1011 Two Dimensional Fundamentals 3cr.
Offered each semester. A study of the elements of two-dimensional art including color, composition, process, and visual perception with practice in the various media. Primarily for fine arts majors. Six hours of studio work.

FA 1012 Introduction to Drawing 3cr.
Offered each semester. An introduction to basic drawing concepts and media. Six hours of studio work.

FA 1013 Three-Dimensional Fundamentals 3cr.
Weekly studio assignments in this course will explore the visual elements in three-dimensional forms and structures. Lectures, demonstrations, discussions, slide presentations, outside reading assignments, field trips, and critiques are an integral part of the studio work. Six hours of studio a week.

FA 1014 Figure Drawing 3cr.
Offered each semester. Prerequisite: FA 1012. Drawing from the figure with emphasis on understanding its fundamental structure and movements and furthering sensitivity to visual organization and graphic expression. Six hours of studio work.

FA 1100 Introduction to European Art and Architecture 3cr.
Introduction to the major developments in Western art from ancient Greece through the twentieth century. Offered only for students enrolled in the High School European Honors Program at Innsbruck.

FA 2000 Field Research in the Arts 1-3cr.

(FTCA 2000, FA 2000, and MUS 2000 are cross-listed) Prerequisite: consent of department. Special research project in the arts involving field experience and study outside the city of New Orleans. Advance preparation for the project will include conference with or lecture by the faculty and readings in the specific areas to be studied. The study trip will consist of attendance at a minimum of four theatrical or musical performances or a minimum of eight hours spent in visits to exhibits or museums for each hour of credit. A follow-up paper on a research topic inspired by the trip will be required. May be repeated for up to six hours of credit. Credit will be given for only FTCA 2000, FA 2000, or MUS 2000 for the same trip.

FA 2201 Historical Survey of the Arts 3cr.
Offered each semester. Prerequisite: satisfactory completion of ENGL 1158. Prehistoric, ancient, classical, and medieval periods. Lectures with slides, films, and readings.

FA 2202 Historical Survey of the Arts 3cr.
Offered each semester. Prerequisite: satisfactory completion of ENGL 1158. The Renaissance, the New World, and the contemporary periods. Lectures with slides, films, and readings.

FA 2215 Monuments of Greek and Roman Art 3cr.
Prerequisite: satisfactory completion of ENGL 1158. Survey of the major monuments of Greek and Roman Art from the Archaic Period, c. 650 B.C. in Greece to the Early Christian Period, c. 400 A.D. on the Italian peninsula.

FA 2220 Monuments of Medieval Art 3cr.
Prerequisite: satisfactory completion of ENGL 1158. Survey of the major monuments of European Art from the medieval period with emphasis on church architecture and sculpture.

FA 2231 A Survey of the History of Photography 3cr.
Prerequisite: satisfactory completion of ENGL 1158. A survey of the history of photography and its influence on modern styles from its earliest beginnings to work by contemporary photographers. Emphasis will be on both aesthetic and technical innovations.

FA 2232 Monuments of Italian Art 3cr.
Survey of the major monuments in painting, sculpture, and architecture from Italy c. 1400-c. 1580.

FA 2236 Monuments of Italian Baroque Art 3cr.
Survey of the major monuments in painting, sculpture, and architecture in Italy c. 1600-c. 1750.

FA 2245 Monuments of the Nineteenth Century 3cr.
Prerequisite: satisfactory completion of ENGL 1158. Survey of the major monuments in painting, sculpture, and graphic arts in Europe c. 1780-1880.

FA 2264 Art of the Twentieth Century 3cr.
Prerequisite: satisfactory completion of ENGL 1158. A survey of the major monuments of European and American painting, sculpture, and architecture from c. 1880 to the present.

FA 2300 Intermediate Drawing 3cr.
Offered each semester. Prerequisites: FA 1011, 1012, and 1014. Emphasis upon the refinement of technical proficiency and mature concepts of visual structure in furthering sensitivity to the expressive potential of drawing media. Six hours of studio work.

FA 2400 Introduction to Photography 3cr.
Offered each semester. Prerequisites: FA 1011, 1012, and 1014. Photography as a creative medium with introductory study of visual concepts and techniques useful in using the camera and laboratory as instruments for visual expression. Six hours of studio work.

FA 2600 Introduction to Sculpture 3cr.
Offered each semester. Prerequisites: FA 1011, 1012, and 1014. An introduction to formal and technical problems in sculpture; traditional and contemporary aspects of the art. Discussions and demonstrations. Six hours of studio work.

FA 2700 Introduction to Painting 3cr.
Offered each semester. Prerequisites: FA 1011, 1012, and 1014. An introduction to formal and technical problems of painting, development of fundamental concepts and skills. Six contact hours per week including discussions, critiques, slide presentations, field trips, lectures, outside readings, and actual studio projects.

FA 2710 Watercolor 3cr.
Prerequisites: FA 1011, 1012, and 1014. An introduction to watercolor as a Fine Arts medium exploring a sequence of painting problems emphasizing wash drawing, color, and design structure. Discussions and slide talks. Six hours of studio work.

FA 2800 Introduction to Printmaking 3cr.
Offered each semester. Prerequisites: FA 1011, 1012, and 1014. A survey course in graphic art. Studio work in various graphic media. Readings and discussions. Six hours of studio work per week.

FA 2900 Introduction to Computer Graphics in Fine Arts 3cr.
Prerequisite: FA 1011 or consent of department. An introduction to the computer as artistic tool and medium, including study of traditions and current tendencies in working with digital media. Six hours of studio work per week.

FA 3203 Senior Project in Art History 3cr.
Prerequisites: At least 24 hours in art history courses at the 3000 level or above, including one with at least three of the full-time art history faculty, and consent of department. Independent study resulting in the writing of an advanced research paper. Topic to be determined in consultation with the supervising faculty member. The finished paper will be evaluated by a committee of the art history faculty.

FA 3271 Art Historical Methods 3cr.
Prerequisites: 12 hours in art history including FA 2201 and 2202 and consent of department. Offered once every third semester excluding summers. A seminar designed to familiarize students with a variety of art historical methods through readings, discussions, written assignments, and visits to museums and archives. Required of all art history majors. Students in disciplines other than art history who can meet the prerequisites and are interested in post-baccalaureate studies or career possibilities in art history are encouraged to take this course.

FA 3291 Internship in Fine Arts 3cr.
Prerequisite: consent of department. Each semester the department makes available a limited number of internships for qualified undergraduates with the City of New Orleans and other public and nonprofit agencies. Interns will work a minimum of eight hours a week at times mutually agreeable to the individual and the agency; some assignments may require more than eight hours a week. In addition, the student must meet regularly with an adviser from the fine arts faculty and the student's work will receive written evaluation from both the agency supervisor and the departmental adviser. FA 3291 and 3292 may not be used as part of the departmental requirement for a nine hour sequence at the 3000 level stipulated in the Studio Art Option.

FA 3292 Internship in Fine Arts 3cr.
Prerequisite: consent of department. Each semester the department makes available a limited number of internships for qualified undergraduates with the City of New Orleans and other public and nonprofit agencies. Interns will work a minimum of eight hours a

week at times mutually agreeable to the individual and the agency; some assignments may require more than eight hours a week. In addition, the student must meet regularly with an adviser from the fine arts faculty and the student's work will receive written evaluation from both the agency supervisor and the departmental adviser. FA 3291 and 3292 may not be used as part of the departmental requirement for a nine hour sequence at the 3000 level stipulated in the Studio Art Option.

FA 3293 Independent Study in Art History 3cr.
Prerequisites: 12 hours in art history including FA 2201 and 2202 and consent of department. A tutorial arranged individually to provide latitude for specialized study and research on topics not offered in the current curriculum. A member of the art history faculty will arrange a study-research outline with each student in the first tutorial meeting. Weekly progress reports conferences and a research paper are required. FA 3293 may not be used to satisfy the period distribution requirements of the art history major. This course may be repeated once for credit.

FA 3299 Senior Honors Thesis in Art History 3cr.
Prerequisites: consent of the department and Director of the Honors Program. Directed research leading to the writing of a Senior Honors Thesis. Must be repeated for a total of six credit hours in order to graduate with honors in Art History. Credit for this course will not be counted towards the 12 hours of Art History at the 3000-level or above required for Art History majors. Successful completion of six hours in FA 3299 will be accepted in lieu of FA 3203.

FA 3301 Advanced Drawing 3cr.
Offered each semester. Prerequisite: FA 3402. Students will execute a major project in the area of photography, prepare a critical analysis of their project, and plan and present a suitable exhibit of the project for review and evaluation by a committee of studio faculty. Six hours of studio work.

FA 3302 Advanced Drawing 3cr.
Prerequisite: FA 2300. Studio work in drawing with emphasis on studio projects. Six hours of studio work.

FA 3400 Intermediate Photography 3cr.
Offered each semester. Prerequisite: Fine Arts 2400. Advanced work in photographic techniques as a means of pictorial expression. FA 3400 and 3401 must be taken in sequence. A grade of C or better must be earned in FA 3400 before taking FA 3401. Six hours of studio work for each class.

FA 3401 Intermediate Photography 3cr.
Offered each semester. Prerequisite: FA 2400. Advanced work in photographic techniques as a means of pictorial expression. FA 3400 and 3401 must be taken in sequence. A grade of C or better must be earned in FA 3400 before taking FA 3401. Six hours of studio work for each class.

FA 3402 Advanced Photography 3cr.
Offered each semester. Prerequisite: FA 3401. Advanced photography is a continuation of FA 3401 with more emphasis on personal artistic expression and greater craftsmanship. Six hours of studio work.

FA 3403 Senior Project in Photography 3cr.
Offered each semester. Prerequisite: FA 3402. Students will execute a major project in the area of photography, prepare a critical analysis of their project, and plan and present a suitable exhibit of the project for review and evaluation by a committee of studio faculty. Six hours of studio work.

FA 3595 Academic Year Abroad: Special Topics in Fine Arts 3cr.
This course is only offered through UNO's Academic Year Abroad (AYA) in Innsbruck, Austria and can be repeated once for credit.

FA 3600 Intermediate Sculpture 3cr.
Offered each semester. Prerequisite: FA 2600. A continuation of the study of formal and technical problems in sculpture; exploration by the student into new techniques and materials. Demonstrations and discussions. FA 3600 and 3601 must be taken in sequence. A grade of C or better must be earned in FA 3600 before taking FA 3601. Six hours of studio work.

FA 3601 Intermediate Sculpture 3cr.
Offered each semester. Prerequisite: FA 2600. A continuation of the study of formal and technical problems in sculpture; exploration by the student into new techniques and materials. Demonstrations and discussions. FA 3600 and 3601 must be taken in sequence. A grade of C or better must be earned in FA 3600 before taking FA 3601. Six hours of studio work.

FA 3602 Advanced Sculpture 3cr.
Offered each semester. Prerequisite: FA 3601. A continuation of the study of formal and technical problems in sculpture; development of the individual's art and its relation to the world of sculpture; and further expansion in techniques, materials, and theories. Demonstrations and discussions. Six hours of studio work.

FA 3603 Senior Project in Sculpture 3cr.
Offered each semester. Prerequisite: FA 3602. Students will execute a major project in the area of sculpture, prepare a critical analysis of their project, and plan and present a suitable exhibit of the project for review and evaluation by a committee of studio faculty. Six hours of studio work.

FA 3700 Intermediate Painting 3cr.
Offered each semester. Prerequisite: FA 2700. Studio work in painting with emphasis on the development of a variety of skills concepts and materials. Six contact hours including discussion, critiques, slide presentations, field trips, lectures, outside readings, and actual studio work. FA 3700 and 3701 must be taken in sequence. A grade of C or better must be earned in FA 3700 before taking FA 3701. Six hours of studio work.

FA 3701 Intermediate Painting 3cr.
Offered each semester. Prerequisite: FA 2700. Studio work in painting with emphasis on the development of a variety of skills, concepts, and materials. Six contact hours including discussion, critiques, slide presentations, field trips, lectures, outside readings, and actual studio work. FA 3700 and 3701 must be taken in sequence. A grade of C or better must be earned in FA 3700 before taking FA 3701. Six hours of studio work.

FA 3702 Advanced Painting 3cr.
Offered each semester. Prerequisite: FA 3701. Studio work in painting with emphasis on the individual development of special skills and interests in painting media. Six contact hours including discussions, critiques, slide presentations, field trips, lectures, outside readings, and actual studio work.

FA 3703 Senior Project in Painting 3cr.
Offered each semester. Prerequisite: FA 3702. Students will execute a major project in the area of painting, prepare a critical analysis of their project, and plan and present a suitable exhibit of the project for review and evaluation by a committee of studio faculty. Six hours of studio work.

FA 3800 Intermediate Printmaking 3cr.
Offered each semester. Prerequisite: FA 2800. Work in the various graphic media including relief intaglio lithography and various photographic processes with an emphasis upon development of proficiency and mature image concepts in a given medium. FA 3800 and 3801 must be taken in sequence. A grade of C or better must be earned in FA 3800 before taking FA 3801. Six hours of studio

work.

FA 3801 Intermediate Printmaking 3cr.
Offered each semester. Prerequisite: FA 2800. Work in the various graphic media including relief intaglio lithography and various photographic processes with an emphasis upon development of proficiency and mature image concepts in a given medium. FA 3800 and 3801 must be taken in sequence. A grade of C or better must be earned in FA 3800 before taking FA 3801. Six hours of studio work.

FA 3802 Advanced Printmaking 3cr.
Offered each semester. Prerequisite: FA 3801. Advanced work in the various graphic media including relief, intaglio, lithography, and various photographic processes. Six hours of studio work per week.

FA 3803 Senior Project in Printmaking 3cr.
Offered each semester. Prerequisite: FA 3802. Students will execute a major project in the area of graphics, prepare a critical analysis of their project, and plan and present a suitable exhibit of the project for review and evaluation by a committee of studio faculty. Six hours of studio work.

FA 3900 Intermediate Hypermedia 3cr.
Offered each semester. Prerequisite: FA 2900. Application and expansion of skills and processes learned in FA 2900 with emphasis on media interactivity within a network computing environment. FA 3900 and 3901 must be taken in sequence. A grade of C or better must be earned in FA 3900 before taking FA 3901. Six hours of studio work for each course.

FA 3901 Intermediate Hypermedia 3cr.
Offered each semester. Prerequisite: FA 2900. Application and expansion of skills and processes learned in FA 2900 with emphasis on media interactivity within a network computing environment. FA 3900 and 3901 must be taken in sequence. A grade of C or better must be earned in FA 3900 before taking FA 3901. Six hours of studio work for each course.

FA 3902 Advanced Hypermedia 3cr.
Offered each semester. Prerequisite: FA 3901. Creative problem solving in a collaborative hypermedia context; application and expansion of skills and concepts learned in FA 2900, 3900, and 3901. Successful completion of this course satisfies the general degree requirement for oral competency. Students who choose hypermedia as a fine arts area of specialization are strongly advised to also earn a minor in computer science. Six hours of studio work.

FA 3903 Senior Project in Hypermedia 3cr.
Offered each semester. Prerequisite: FA 3902. Students will execute a major project in the area of hypermedia, prepare a critical analysis of their project, and plan and present a suitable exhibit of the project for review and evaluation by a committee of studio faculty. (Note: Students who choose Hypermedia as a Fine Arts Area of Specialization are strongly advised also to earn a minor in Computer Science.

FA 4100 Principles in Art Education 3cr.
A survey of major ideas regarding the role of art in contemporary life and education with special emphasis upon understanding the nature of creativity and art experiences in childhood and adolescent development. The establishment of art programs and problems in selection, organization, presentation, and evaluation of art activities in relation to the total educational format.

FA 4210 African Art 3cr.
A study of the arts of sub-Saharan Africa. Emphasis is on the form and function of art in African cultures previous to or independent of Westernization.

FA 4211 Art of the Pacific-Oceania 3cr.
A study of the arts of the Pacific Islands, Oceania art, especially the art of Polynesia, Melanesia, Micronesia, and Australia. Emphasis is on the form and function of the art in these regions prior to or independent of Westernization.

FA 4220 Medieval Art 3cr.
Prerequisites: FA 2201 and 2202 or consent of department. A survey of European art from the Middle Ages with emphasis on Christian architecture sculpture and painting.

FA 4230 The International Gothic and (Ars Nova) in the Netherlands and Germany 3cr.
Prerequisite: FA 2201, 2202 or consent of department. Critical study of developments in painting sculpture and graphics in Northern Europe from Claus Sluter to Hieronymus Bosch.

FA 4233 The Art of the Sixteenth Century in Holland, Belgium, Germany, Austria, and France 3cr.
Prerequisite: FA 2202 or consent of department. Recommended as a sequel to FA 4230. Critical study of developments in painting, sculpture, and graphics in Northern Europe from Albrecht Durer to Germain Pilon.

FA 4234 Late Medieval Art in Italy, 1250-1400 3cr.
Prerequisite: FA 2202 or permission of the instructor. This course focuses on developments in painting, sculpture, and architecture in late medieval Italy, with a special emphasis on the Tuscan cities of Florence, Siena, and Pisa. Attention will be given to issues of style, regional schools, and typology, to individual artists and artworks and to the examination of the central themes raised in the literature concerning this period (for example, the proto-Renaissance, a "Black-Death" style).

FA 4235 The Art of Quattrocentro in Italy 3cr.
Prerequisite: FA 2201, 2202 or consent of department. Critical study of developments in painting, sculpture, and graphic media in the major centers of Italy from Ghiberti to Signorelli.

FA 4237 The High Renaissance and Mannerism in Italy 3cr.
Prerequisite: FA 2202 or consent of department. Recommended as a sequel to FA 4235. Critical study of developments in painting, sculpture, and graphic media in Italy from Leonardo da Vinci to Paolo Veronese.

FA 4238 Architecture of the Renaissance and Baroque 3cr.
Prerequisites: FA 2201 and 2202, or consent of department. Recommended as a sequel to FA 4235 and 4237. Systematic study of the major developments in architecture and urban design in Italy, France, Spain, c.1400-1750. Emphasizing the leading role of Italy with mention of selected cities and monuments from France and Spain.

FA 4240 Italian Baroque and Rococo Art 3cr.
Prerequisite: FA 2202 or consent of department. Recommended as a sequel to FA 4238. Critical study of the developments in painting, sculpture, and graphic media in Italy from Caravaggio to Guardi.

FA 4245 Art of the Nineteenth Century 3cr.
Fall semester. Prerequisite: FA 2202 or consent of department. A study of the arts of Europe and America from neoclassicism to Postimpressionism.

FA 4246 Special Topics in Nineteenth Century Art 3cr.
Prerequisite: FA 2202 or consent of the instructor. An investigation of a major movement, style, or subject relevant to nineteenth century art. Topics will vary. Lecture, evaluations, and discussions.

FA 4263 Twentieth Century Architecture 3cr.
Prerequisite: FA 2202 or consent of instructor. A study of the archi-

tects, movements, and monuments which have determined the course of twentieth century architecture in the United States and Europe.

FA 4265 Early Modern Art (1880-1920) 3cr.
Prerequisite: FA 2202 or consent of instructor. Developments in painting and sculpture in Europe and the United States from the 1880s to 1920. Attention will be given to major styles and movements (including Symbolism, Neo-Impressionism, Fauvism, Cubism, Expressionism, and Dada) to individual artists and artworks, and to the development of the concepts of revolutionary modernism and the avant-garde, of the primitive in art, and of abstraction.

FA 4266 Modernism at Mid-Century (1920-1960) 3cr.
Prerequisite: FA 2202, 4265 or consent of instructor. Developments in painting and sculpture in Europe and the Unites States from 1920 to 1960. Attention will be given to major styles and movements (including Surrealism, Abstract Expressionism, Art Informel, Neo Dada), to individual artists and artworks, and to the instrumental roles of the historian, the critic, the curator, the marketplace, and political events in shaping late modern art.

FA 4267 Contemporary Art: Postmodernism and Beyond (1960-present) 3cr.
Prerequisite: FA 4266 or consent of instructor. Developments in the visual arts in the United States and Europe from 1960 to the present. Attention will be given to major styles and movements (including Pop, Minimalism, Performance, Environmental Art, Conceptual Art, Feminism, Neoexpressionism, Appropriation), to significant artists and critics, and to the historical and theoretical context in which the concept of Postmodernism has taken shape.

FA 4270 Special Topics in Modern Art 3cr.

FA 6010 Visual Arts for Art Administrators 3cr.
Prerequisite: admission to the M.A. administration program or consent of department. An overview of the field of visual arts. This introduction to the visual arts will include the terminology and criteria for aesthetic evaluation, the materials and processes of painting, sculpture, graphic arts, and architecture, an historical survey, and consideration of management principles and practices appropriate to the visual arts. Lectures will be supplemented by visits to local galleries and museums. Intended as a distributive component in the M.A. administration program, this course may not be taken for graduate credit toward the M.F.A. in Fine Arts.

FA 6100 Independent Research in Art History 3cr.
Prerequisite: consent of department. Credit to be allowed only once.

FA 6501 Major Studio I 3cr.
Offered each semester. Major Studio for Master of Fine Arts candidates in one of the areas of painting, sculpture, graphics, or photography. To be taken in sequence for a total of 12 hours.

FA 6502 Major Studio I 3cr.
Offered each semester. Major Studio for Master of Fine Arts candidates in one of the areas of painting, sculpture, graphics, or photography. To be taken in sequence for a total of 12 hours.

FA 6503 Major Studio I 3cr.
Offered each semester. Major Studio for Master of Fine Arts candidates in one of the areas of painting, sculpture, graphics, or photography. To be taken in sequence for a total of 12 hours.

FA 6504 Major Studio I 3cr.
Offered each semester. Major Studio for Master of Fine Arts candidates in one of the areas of painting, sculpture, graphics, or photography. To be taken in sequence for a total of 12 hours.

FA 6601 Major Studio II 3cr.
A continuation of Major Studio I. Major studio for Master of Fine Arts candidates in the studio area that was selected for Major Studio I. To be taken in sequence for a total of 21 hours.

FA 6602 Major Studio II 3cr.
A continuation of Major Studio I. Major studio for Master of Fine Arts candidates in the studio area that was selected for Major Studio I. To be taken in sequence for a total of 21 hours.

FA 6603 Major Studio II 3cr.
A continuation of Major Studio I. Major studio for Master of Fine Arts candidates in the studio area that was selected for Major Studio I. To be taken in sequence for a total of 21 hours.

FA 6604 Major Studio II 3cr.
A continuation of Major Studio I. Major studio for Master of Fine Arts candidates in the studio area that was selected for Major Studio I. To be taken in sequence for a total of 21 hours.

FA 6605 Major Studio II 3cr.
A continuation of Major Studio I. Major studio for Master of Fine Arts candidates in the studio area that was selected for Major Studio I. To be taken in sequence for a total of 21 hours.

FA 6606 Major Studio II 3cr.
A continuation of Major Studio I. Major studio for Master of Fine Arts candidates in the studio area that was selected for Major Studio I. To be taken in sequence for a total of 21 hours.

FA 6607 Major Studio II 3cr.
A continuation of Major Studio I. Major studio for Master of Fine Arts candidates in the studio area that was selected for Major Studio I. To be taken in sequence for a total of 21 hours.

FA 6701 Minor Studio 3cr.
Minor Studio for M.F.A. candidates to be chosen from a studio area different from the major area. To be taken in sequence for a total of 12 hours.

FA 6702 Minor Studio 3cr.
Minor Studio for M.F.A. candidates to be chosen from a studio area different from the major area. To be taken in sequence for a total of 12 hours.

FA 6703 Minor Studio 3cr.
Minor Studio for M.F.A. candidates to be chosen from a studio area different from the major area. To be taken in sequence for a total of 12 hours.

FA 6704 Minor Studio 3cr.
Minor Studio for M.F.A. candidates to be chosen from a studio area different from the major area. To be taken in sequence for a total of 12 hours.

FA 6801 Seminar in Fine Arts 1cr.
No credit. Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.Investigation into concepts and issues in visual arts. Students in the M.F.A. program must enroll in the seminar three times. Grades will be assigned on a SU basis.

FA 7000 Thesis Research 1-9cr.
Offered each semester. To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

FA 7040 Examination or Thesis Only 0cr.
No credit. Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for

degree) to pass the final examination to complete graduation requirements.

Foreign Languages

General Prerequisites: Students may receive credit for only one course from each of the following pairs: Biological Sciences 1063 and 1073, 1083 and 1053, 1061 and 1071, 1051 and 1081, 2014 and 2553. Students must attain grades of C or higher in any courses serving as prerequisites for higher-level courses. Some of the biology courses entail dissection of animal or plant material. Such dissection is an essential component in the learning of biological principles and is required of all students majoring in the Biological Sciences at UNO and of all students matriculating in the upper-level biology courses. It is recognized that a significant number of non-major students take only the 1000-level biology courses and do not matriculate toward upper-level biology coursework. It is the policy of the department that, in the 1000-level biology courses (with the exception of Biology 1311), such non-major students who, for ethical reasons, object to dissection, may request of the laboratory instructor to be exempted there from (with the understanding that the student will be held responsible for the course material contained therein).

FORL 1001 Basic Self-Instructional Foreign Language 3cr.
The first of two courses for beginners to acquire basic fluency in the target language. Emphasis is on speaking and understanding, with some attention to reading and writing. The mastery of basic skills will be required to study a textbook and listen to audio tapes prior to meeting with an assigned native-speaking tutor for intensive sessions throughout the semester. Students may arrange to take this course on a non-credit basis.

FORL 1002 Intermediate Self-Instructional Foreign Language 3cr.
Prerequisite: FORL 1002 or consent of Critical Languages Program Coordinator. A continuation of courses for intermediate learners that aims at the acquisition of fluency in the target language. Emphasis is on speaking and understanding, with some attention to reading and writing. The mastery of intermediate skills will be achieved through intensive aural-oral exercises and practice. Students are required to study a textbook and listen to audio tapes prior to meeting with an assigned native-speaking tutor for intensive sessions throughout the semester. Students may arrange to take this course on a non-credit basis.

FORL 2001 Intermediate Self-Instructional Foreign Language 3cr.
Prerequisite: FORL 1002 or consent of Critical Languages Program Coordinator. A continuation of courses for intermediate learners that aims at the acquisition of fluency in the target language. Emphasis is on speaking and understanding, with some attention to reading and writing. The mastery of intermediate skills will be achieved through intensive aural-oral exercises and practice. Students are required to study a textbook and listen to audio tapes prior to meeting with an assigned native-speaking tutor for intensive sessions throughout the semester. Students may arrange to take this course on a non-credit basis.

FORL 2002 Intermediate Self-Instructional Foreign Language II 3cr.
Prerequisite: FORL 2001 or consent of Critical Languages Program Coordinator. A continuation of courses for intermediate learners that aims at the acquisition of fluency in the target language. Emphasis is on speaking and understanding, with some attention to reading and writing. The mastery of intermediate skills will be achieved through intensive aural-oral exercises and practice. Students are required to study a textbook and listen to audio tapes prior to meeting with an assigned native-speaking tutor for intensive sessions throughout the semester. Students may arrange to take this course on a non-credit basis.

FORL 3001 Advanced Self-Instructional Foreign Language I 3cr.
Prerequisite: FORL 2002 or consent of Critical Languages Program Coordinator. A continuation of courses for advanced learners that aims at the acquisition of fluency in the target language. Emphasis is on speaking and understanding, with some attention to reading and writing. The mastery of advanced skills will be achieved through intensive aural-oral exercises and practice. Students are required to study a textbook ad listen to audio tapes prior to meeting with an assigned native-speaking tutor for intensive sessions throughout the semester. Students may arrange to take this course on a non-credit basis.

FORL 3002 Select Foreign Language 3cr.

FORL 3051 Reading/Discussion 1 3cr.

FORL 3052 Reading/Discussion 2 3cr.

French

Placement of students with high school preparation in French: students with sufficient preparation in French may enter the second, third, or fourth semester course in that language, thus completing the foreign language requirement in fewer semesters. Students interested in taking placement tests should contact the Foreign Language departments. Language courses in the 1001, 1002, 2001, 2002 sequence must be taken in that order.

FREN 1001 Basic French I 3cr.
Offered each semester. The first in a sequence of courses developing all four language skills: speaking, understanding, writing and reading. Audio-visual items will be used to enhance the process of language acquisition.

FREN 1002 Basic French II 3cr.
Offered each semester. Prerequisite: FREN 1001 or consent of department. A continuation of FREN 1001.

FREN 2001 Intermediate French I 3cr.
Offered each semester. Prerequisite: FREN 1002 or consent of department. Continuation of the development of all four language skills: speaking, understanding, writing, and reading with special emphasis on the last skill. Audio-visual items will be used to enhance the process of language acquisition.

FREN 2002 Intermediate French II 3cr.
Offered each semester. Prerequisite: FREN 2001 or consent of department. Readings and exercises in French. Increased emphasis on the development of advanced reading and translation skills.

FREN 3002 Practical French Phonetics 3cr.
Analysis of the phonetic system of French. Intensive practice in the language laboratory (ear training, transcription, and corrective exercises). A consideration of the problems of teaching French pronunciation to English-speaking students.

FREN 3005 Romance Linguistics 3cr.
(SPAN 3005 and FREN 3005 are cross-listed) Comparative study of the history, phonology, morphology, and syntax of the principal Romance languages.

FREN 3031 French Conversation 3cr.
Prerequisite: FREN 2002 or consent of department. Conversation, oral discussions, interpretations, and reports; practicing the spoken language.

FREN 3041 Advanced French Grammar 3cr.
Fall semester. Intensive study of French grammar and syntax. This

course is designed primarily for prospective teachers and students concentrating in French.

FREN 3042 Advanced French Composition and Syntax 3cr.
Spring semester. Prerequisite: FREN 3041. Drill in original descriptive and narrative composition in the language with attention to style, syntax, idioms, and verb forms.

FREN 3090 Advanced Practical French 3cr.
Prerequisite: completion of 12 hours of beginning and intermediate level of the four-skills French sequence FREN 1001, 1002, 2001, 2002, or equivalent credit. Intensive instruction in the French language taught in France or in a French-speaking country and open only to students in the UNO-Montpellier Summer School or similar programs. Particular emphasis is placed on oral proficiency, socio-linguistic competence, and cultural awareness.

FREN 3100 Survey of French Literature I 3cr.
Fall semester. A study of the development of French literature from its beginnings through the eighteenth century. Lectures, readings, and reports. Classes conducted in English. Additional work done in connection with this course may be used by French majors to fulfill the Liberal Arts oral proficiency requirement.

FREN 3101 Survey of French Literature II 3cr.
Spring semester. Continuation of FREN 3100. A study of the main authors and literary movements from the nineteenth century to the present. Classes conducted in English. Additional work done in connection with this course may be used by French majors to fulfill the Liberal Arts oral proficiency requirement.

FREN 3191 Independent Work 1cr.
Prerequisite: consent of department. Readings, conferences, and papers under the direction of a member of the faculty. The course allows the student to correlate and supplement the work covered in the departmental courses. Each course may be repeated, but combined credit may not exceed six semester hours.

FREN 3192 Independent Work 1cr.
Prerequisite: consent of department. Readings, conferences, and papers under the direction of a member of the faculty. The course allows the student to correlate and supplement the work covered in the departmental courses. Each course may be repeated, but combined credit may not exceed six semester hours.

FREN 3193 Independent Work 1cr.
Prerequisite: consent of department. Readings, conferences, and papers under the direction of a member of the faculty. The course allows the student to correlate and supplement the work covered in the departmental courses. Each course may be repeated, but combined credit may not exceed six semester hours.

FREN 3197 Demonstration of Oral Proficiency 1cr.
This courses is to be taken concurrently with FREN 3055, 3100, or 3101. The student will be required to present a detailed "explanation de texte" to the professor teaching the course and conduct a discussion with the profession related to the chosen text and receive a pass/fail grade. Successful completion of this course satisfies the general degree requirement of oral competency.

FREN 3199 Independent Work for Honors Students 3cr.
Admission by consent of department and the Director of the University Honors Program. Directed research culminating in a written thesis to meet the requirements for graduation with Honors in French, and if appropriate, University Honors.

FREN 3205 Readings in French Culture and Thought 3cr.
Prerequisite: FREN 2002 or consent of the department. An introduction to and overview of cultural, artistic, and intellectual activities in France from the reign of Clovis through the era known as Belle Epoque.

FREN 3402 Masterpieces of French Literature in Translation 3cr.
(Open to all students including French and French Education majors, for degree credit as an elective.) French works in translation are chosen each time for reading, analysis, and discussion.

FREN 3403 Special Topics in French Literature 3cr.
Prerequisite: FREN 2002 or consent of department. A course of introduction to French civilization designed for the "Glories of France" program run by UNO in Montpellier, France during summers. Topics may vary from semester to semester, but they will invariably incorporate some literature of the French South and/or works that deal with the image of the South in French literature. Classes conducted in English. May be repeated once for credit.

FREN 3404 Special Topics in French Civilization 3cr.
Prerequisite: FREN 2002 or consent of the department. A course of introduction to French Civilization designed for the "Glories of France" program run by UNO in Montpellier, France during summers. Topics may vary from semester to semester, but they will invariably treat some aspects of the French civilization in the South, its history, literature and artistic traditions. Classes conducted in English. (May be repeated once for credit.)

FREN 3500 Tutorial for Graduating Majors 1cr.
This course prepares majors for the completion of their requirements for the B.A. in French. A designated professor will serve as advisor. The course consists of a review of the subjects covered in other required courses, in literature, language/linguistics and civilization. The course concludes with the Written Exit Exam, a comprehensive two-hour exam in French. Prerequisite: 100 hours of course work. Tutorial format. Pass/Fail.

FREN 3501 French for Research and Graduate Students I 2cr.
A half-semester accelerated and intensive course in French for those with little or no previous study of French, especially designed to develop reading ability. This course will not count toward satisfying the Liberal Arts language requirement. Credit will not be granted for this course and for FREN 1001-1002. Grades will be assigned on a Pass-Fail basis.

FREN 3502 French for Research and Graduate Students II 2cr.
Prerequisite: FREN 3501. A half-semester accelerated and intensive course in French especially designed to develop reading ability. This course will not count toward satisfying the Liberal Arts language requirement. Credit will not be granted for this course and for FREN 1001-1002. Grades will be assigned on a Pass-Fail basis.

FREN 4015 History of the French Language 3cr.
A general survey of the development of the French language from its beginnings to the present day with particular attention to the phonology, morphology, and syntax of Old French. Lectures, reports, and term paper.

FREN 4031 Advanced French Conversation 3cr.
Prerequisite: FREN 3031 or equivalent. Intensive practice in the spoken language: conversation, oral discussions, interpretations, and reports. Conducted in French.

FREN 4041 Problems of Grammatical Analysis 3cr.
Prerequisite: FREN 3041 or equivalent. Problems of grammatical analysis and contrastive stylistics are discussed on a basis that combines traditional approaches and more recent theories. Application in translation exercises, from and into French, and introduction to literary translation.

FREN 4051 Business French 3cr.
Prerequisite: Language proficiency at the 2002 level. Study of fundamental sentence structure and specialized terminology and idioms related to business needs and correspondence; practice in business correspondence; oral exposés and conversations dealing

with standard business situations and French economy; and readings from current magazines in economics and international business.

FREN 4110 Medieval French Literature 3cr.
Readings in the principal genres from the beginnings to 1500: the epic, the Romance, lyric poetry, and didactic literature.

FREN 4122 French Renaissance Literature 3cr.
A study of the major prose writers of the French Renaissance e.g. the prose writers: Rabelais, Marguerite de Navarre, Montaigne; the poets: Marot, Sceve, Du Bellay, Ronsard and D'Aubigne. Emphasis will also be given to the currents of French Humanism and Evangelism, and to Pleiade Poetics.

FREN 4132 Seventeenth Cent French Literature 3cr.
A study of the principal writers of the baroque and classical periods with emphasis on the classical ideal and its formation in the non-theatrical genres.

FREN 4140 French Literature of the Eighteenth Century 3cr.
Origins and development of the philosophical movement in France; the novel and the theatre. Montesquieu, Marivaux, Prévost, and Voltaire up to 1750.

FREN 4152 The French Novel 3cr.
A study of the novel from the French Revolution to the First World War with emphasis on key authors of the different literary movements.

FREN 4154 French Literature of the Nineteenth Century 3cr.
A study of the major dramatists and dramatic movements of the nineteenth century in France.

FREN 4156 French Nineteenth Century Poetry and Selected Prose 3cr.
A study of the major poets and poetic movements of the nineteenth century in France and the major critical and historical writers and their theories.

FREN 4162 French Novel of the Twentieth Century 3cr.
An historical and textual study of the major French novelists of the twentieth century.

FREN 4164 French Poetry and Drama of the Twentieth Century 3cr.
An historical and textual study of the major French playwrights of the twentieth century.

FREN 4166 French Poetry from Symbolism to the Present 3cr.
A study of the major movements in French poetry in the late nineteenth and twentieth centuries including Symbolism, Cubism, and the ésprit nouveau, Dada, Surrealism, and the poetry of World War II and after.

FREN 4201 French Civilization I 3cr.
Study of French culture and civilization (history, fine arts, music, architecture, history of ideas, etc.) from its origins to the end of the Renaissance. Readings and discussions in French.

FREN 4202 French Civilization II 3cr.
A continuation of FREN 4201 stressing the cultural history of France from the Renaissance to the present day. Readings and discussions in French.

FREN 4265 Contemporary French Culture 3cr.
Study of French intellectual and cultural life today: social, economic, and geographical factors; the country and its people; changing trends in contemporary French society and attitudes. Conducted in French.

FREN 4400 Children's Literature in French 3cr.
A study of the cultural heritage of stories songs rhymes and games. Selection evaluation and use of books and materials for children.

FREN 6001 French Stylistics 3cr.
The pragmatic aspects of the French language, i.e., those aspects which go beyond the basic structures (grammatical and lexical) to account for the functioning of a verbal system of communication in a social context. Topics to be studied include stylistic functions of language, stylistic levels, and "sociolects" (elegant versus popular, technical versus argotic), denotation versus connotation, subjectivity in language, speech acts, clichés, and figures of speech.

FREN 6003 French "Commentaire De Texte" 3cr.
The theory behind and practice in the French method of "commentaire de texte" textual exegesis. In addition to purely literary texts, the method will be applied to the analysis of historical and cultural documents.

FREN 6007 French Linguistics 3cr.
Advanced study of French phonology, syntax, and semantics within the framework of recent linguistic models, including consideration of solution of major descriptive problems proposed from at least 1900 to the present.

FREN 6041 Theory and Practice of Translation 3cr.
Advanced aspects of French are illustrated practically through translations selected from the French press, modern colloquial French fiction, and historical literary works. Practical work is complemented by the study of writings of well-known French authors on problems of translation.

FREN 6097 Studies in French Linguistics 3cr.
May be repeated once for credit.

FREN 6190 Studies in Medieval French Literature 3cr.
May be repeated once for credit.

FREN 6191 Studies in French Renaissance Literature 3cr.
May be repeated once for credit.

FREN 6192 Studies in Seventeenth-Century French Literature 3cr.
May be repeated once for credit.

FREN 6193 Studies in Eighteenth-Century French Literature 3cr.
May be repeated once for credit.

FREN 6194 Studies in Nineteenth-Century French Literature 3cr.
May be repeated once for credit.

FREN 6195 Studies in Twentieth-Century French Literature 3cr.
May be repeated once for credit.

FREN 6197 Studies in French Literature 3cr.
May be repeated once for credit.

FREN 6205 French Thought 3cr.
Intellectual history of France. Study of selected texts on the literature of ideas (political and social thought, science, religion and philosophy, and literary movements).

FREN 6265 Contemporary French Society and Institutions 3cr.
This course involves the study of aspects of contemporary French society. It focuses on the 70s and 80s, with special emphasis on the most recent developments on the French ideological and artistic scene.

FREN 6295 Studies in French Culture and Civilization 3cr.
May be repeated once for credit.

FREN 6397 Directed Study 3cr.
Readings, conferences, reports, and a research paper under the

direction of a member of the graduate faculty. May be repeated once for credit.

FREN 6650 Special Topics in French Civilization 3cr.
Prerequisite: FREN 2002 or consent of department. A course of introduction to French civilization designed for the "Glories of France" program run by UNO in Montpellier, France during summers. Topics may vary from semester to semester, but they will invariably treat some aspects of the French civilization in the South, its history, literature and artistic traditions. Classes conducted in English. May be repeated once for credit.

FREN 7000 Thesis Research 1-9cr.
To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

FREN 7040 Examination or Thesis Only 0cr.
No credit. Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

Geography

GEOG 1001 World Regional Geography 3cr.
Offered each semester. The nations of Europe (including the Soviet Union) and the Americas; emphasis on the analysis of physical and cultural relationships and interactions between countries in time and space.

GEOG 1002 World Regional Geography 3cr.
Offered each semester. The nations of Asia and Africa; emphasis on the analysis of physical and cultural relationships and interactions between countries in time and space.

GEOG 1500 Elements of Geography 3cr.
A survey of the basic concepts in physical and cultural geography.

GEOG 1600 Environmental Geography 3cr.
An analysis of the interactions between humankind and the world's physical environments which have led to present-day environmental stresses. Topics include the utilization of resources, population growth, food supplies, energy, and air and water pollution.

GEOG 1690 Other People, Other Places 1cr.
An examination of changing landscapes. Topics will vary each semester. Most topics will emphasize man's impact on his environment; other topics will stress the natural environment. Two hours of lecture per week for one-half semester.

GEOG 2151 Elements of Physical Geography 3cr.
An examination of the fundamentals of the natural landscape and their interactions. Includes weather and climate processes, world climate patterns, soil and vegetation types, and landforming processes.

GEOG 2158 Conservation 3cr.
An analysis of the basic principles of the conservation of the natural resources of the world. Emphasis will be placed on the United States.

GEOG 2254 Elements of Economic Geography 3cr.
Examination of factors influencing the location of economic activities with individual treatment of the primary, secondary, and tertiary sectors, and analysis of transportation and regional development problems.

GEOG 2356 Cultural Geography 3cr.
A consideration of cultural factors which influence the human use of the environment; emphasis on resulting patterns of settlement, resource utilization, and landscape modification.

GEOG 2401 Geography of Louisiana 3cr.
An examination of the physical and cultural landscapes of Louisiana. Emphasis placed upon the geographical implications of the state's varied cultural heritage. A sampling of topics includes Acadian settlement, rural folk housing, folk occupations, and the evolution of the New Orleans urban landscape.

GEOG 2402 Geography of the United States and Canada 3cr.
The physical and cultural geography of the United States and Canada. Emphasis on the physical landscape, culture, land use, urbanization, and economic development.

GEOG 2404 Geography of Latin America 3cr.
The natural environments, cultures, and economic resources of Latin America - from Amazonia to the Andes. Emphasis is placed on the effects of both traditional and modern land use systems on cultural diversity and change and on the internal and external forces that have limited the economic development of Mexico and the nations of Central America, the Caribbean, and South America.

GEOG 2406 Geography of the U.S. South 3cr.
A survey and analysis of the physical and cultural environments of the southern United States. Emphasis on the physical landscape, culture, land use, urbanization, and economic development.

GEOG 2422 Geography of Western Europe 3cr.
A survey and analysis of the physical, cultural, and economic environments of Europe excluding the states of the former Soviet Union.

GEOG 2424 Geography of Russia and Neighboring States 3cr.
A survey and analysis of the physical, cultural, and econonomic environments of Russia and the new countries that emerged from the collapse of the Soviet Union.

GEOG 2431 Geography of the Middle East 3cr.
A survey and analysis of the physical and cultural environment of the Middle East. Emphasis on physical landscape, land use, and economic and political development.

GEOG 2441 Geography of Asia 3cr.
A survey and analysis of the physical and cultural environments of Asia. Emphasis on the physical landscape, land use, and economic development.

GEOG 2451 Geography of Africa 3cr.
A survey and analysis of the physical, cultural, and economic environment of Africa. Emphasis on physical landscape, culture, land use, urbanization, disease, and economic development.

GEOG 2701 Geographical Literature and Research Aids 1cr.
An examination of the important elements in geographical study and the basic literature and research aids used by geographers.

GEOG 2801 Quantitative Methods in Geography 3cr.
Prerequisites: MATH 1115 or consent of department. An introduction to quantitative methods and models used in analyzing geographic problems.

GEOG 2810 Map Reading and Interpretation 3cr.
Basic introduction to the skills and reasoning ability needed to appreciate and use maps as research tools and illustrative devices. Emphasis on reading and geographic analysis of U.S. topographic maps. Two hours lecture and two hours laboratory per week.

GEOG 3390 Special Topics in Cultural Geography 3cr.
Prerequisite: GEOG 2356 or consent of department. The examination of selected regions and social institutions to illustrate the manner in which the geographer achieves an understanding of the man-land relationship. Topics will vary from semester to semester. May be repeated once for credit.

GEOG 3490 Special Topics in Physical Geography 3cr.
Prerequisite: GEOG 2151 or consent of department. An examination of selected topics in physical geography. Designed to provide an in-depth examination of specific features of the physical landscape and to analyze the manner in which man has altered the natural environment. Topics will vary from semester to semester. May be repeated once for credit.

GEOG 3595 Academic Year Abroad: Special Topics in Geography 3cr.
This course in only offered through UNO's Academic Year Abroad (AYA) in Innsbruck, Austria and can be repeated once for credit.

GEOG 3805 Fundamentals of Mapping and GIS 3cr.
Prerequisite: GEOG 2801 (or equivalent) or consent of department. Lecture-based introduction to the basic concepts and technologies important to mapping geographic information systems (GIS) and image analysis. Topics include map design fundamentals thematic mapping statistical cartography the relationship of mapping to GIS essential elements of GIS data acquisition and analysis visualization of output remotely sensed imagery and GIS. GIS functions and associated applications and spacial decision support systems. This course will meet the needs not only of students who intend to do additional work in geographic techniques but those who need only a one-semester of concepts. Students who have earned credit in GEOG 4805 may not take GEOG 3805 for credit.

GEOG 3850 Geography Internship 3cr.
Prerequisite: consent of department. Each semester the department makes available internships with the City of New Orleans and other government agencies in the metropolitan area. Internships provide the opportunity to learn about geography from the perspective of the participating agency. This course may be repeated once for credit for a total of six hours.

GEOG 3895 Senior Honors Thesis 1-6cr.
Prerequisites: consent of department and the director of the Honors Program. The design and written preparation under faculty supervision of a major geographic research project. May be repeated for up to a total of six credits. Section number will correspond with credit to be carried.

GEOG 4150 The Geography of Hazards & Disasters 3cr.
Recommended: Geography 1600. Students are introduced to the geographic study of natural hazards, technological hazards, and disasters. Special emphasis will be given to the spatial patterns and mapping science of both the risk and impact of each type of environmental hazard. Additionally, students will explore the geographic context of creating and managing environmental hazards, contemporary efforts to seek "all-hazards" solutions to the management of environmental hazards and disasters, and the multi-scale (i.e. global, regional, local) challenges presented by environmental hazards.

GEOG 4158 Environmental Impact Assessment 3cr.
Prerequisites: GEOG 2151; and BIOS 1073 and 1083, or BIOS 1053 and 1063, or consent of department. Three hours of statistics are recommended. The course addresses the legal framework and provisions of environmental impact statement preparation as prescribed by the National Environmental Policy Act of 1969 and subsequent legislation and guidelines. Methodologies are considered for both analyzing and evaluating human impacts on the natural environment.

GEOG 4220 Agricultural Geography 3cr.
Prerequisite: three hours of geography or consent of department. An examination of physical, historical, and cultural factors influencing agricultural production in both industrialized and developing nations with emphasis on case studies representative of diverse agricultural systems. Topics include soil, water, and climatic regulators, small-scale subsistence systems versus mechanized Green-Revolution farming, tropical diets and nutritional diseases, promising new agricultural products and technologies, and home gardening as intensive agriculture.

GEOG 4230 Geography of Manufacturing 3cr.
A survey and analysis of the spatial dimension of manufacturing activities, including an examination of location factors, theories of location, and contemporary trends in the location of North American manufacturing. ECON 2203 is recommended.

GEOG 4290 Special Topics in Economic Geography 3cr.
Prerequisite: GEOG 2254 or consent of department. An examination of selected topics in economic geography designed to illustrate the manner in which man has changed and organized the earth's surface. Topics will vary from semester to semester. May be repeated once for credit.

GEOG 4310 Political Geography 3cr.
Examination of the spatial structure of the state spatial interactions among states, geopolitical theories, law of the sea, electoral patterns within the United States, and urban political geography.

GEOG 4320 Tropical Lands and Their Utilization 3cr.
The varying utilizations of savanna and rainforest environments by different cultural groups at different times and places; problems of human adaptation to tropical lands; emphasis on South America.

GEOG 4513 Meteorology 3cr.
GEOG 2151 is recommended as a prerequisite. An examination and analysis of the elements of weather and the techniques and problems of weather forecasting.

GEOG 4514 Climatology 3cr.
GEOG 2151 is recommended as a prerequisite. An analysis of climatic processes and their organization into regional patterns. Also includes inter-relationships among climate, vegetation, soils and landforms, applications of climatic information, and climatic modification and change.

GEOG 4530 Biogeography 3cr.
A study of the origin distribution adaptation and association of biota (plants and animals) emphasizing geographical relationships. Plant communities are correlated with climate and soil on a worldwide basis. Methods of dispersal and migration are studied along with past geological events that have affected biotic distribution.

GEOG 4540 Biogeography of Birds 3cr.
This course will investigate bird distribution patterns and resource use patterns on several spatial scales. Broad geographic patterns will be discussed, including patterns of migration and avian zoogeography. Distributional patterns will be interpreted in terms of the habitat use and behavior of birds at different stages in their annual cycles. Field observations of species nesting around the UNO campus will be incorporated to complement lecture information.

GEOG 4550 Geography of Coastal Environments 3cr.
A study of the coastal areas of the world as natural environments, as resources, and as human habitats. Topics covered will include the geomorphology of coasts, coastal oceanography, coastal resources, prehistoric and modern human settlement patterns, the coast as an environmental hazard, and coastal zone management. A substantial amount of time will be devoted to Southern Louisiana.

GEOG 4600 History and Practice of Planning 3cr.
(MURP 4600 and GEOG 4600 are cross-listed) This course introduces students to the history and practice of urban planning in the United States from its origins in the colonial era through the evo-

lution of planning thought and programs in the 20th century. It also provides students with an understanding of how planning has evolved through recent history, and is being practiced currently. Emphasis will be placed on the components of comprehensive planning, the implementation of modern city plans, and the discussion of current planning issues.

GEOG 4610 Urban Geography 3cr.
Prerequisite: three hours of geography or consent of department. An analysis of the origin and diffusion of cities, their internal arrangement, and external relations and the problems associated with urban living.

GEOG 4620 Geography of the Western City 3cr.
Prerequisite: three hours of geography or consent of department. Examination of the spatial patterns of urban evolution in Europe and North America. Emphasis on the form, function, and connectivity of Western cities from classical times to the present.

GEOG 4630 Geography of the Third World City 3cr.
Prerequisite: three hours of geography or consent of department. Geographic analysis of urbanism as a way of life and the physical processes of urbanization in the Third World developing countries.

GEOG 4768 Selected Geographic Concepts for Teachers and Prospective Teachers 3cr.
This course is designed to provide teachers and prospective teachers with a basic understanding and working knowledge of selected geographic concepts and skills. Topics include map use and interpretation, weather and storms, world climates, landforms, human ecology and pollution, reserves and utilization of natural resources, population growth, and Third World economic development and urbanization.

GEOG 4801 Advanced Quantitative Methods in Geography 3cr.
Prerequisite: GEOG 2801 or consent of department. An advanced course in the analysis of geographic data, focusing on the refinement of research design skills, the use of multivariate statistical techniques, and the application of commonly employed geographic sampling procedures in spatial and environmental analysis.

GEOG 4805 Fundamentals of Mapping and GIS 3cr.
Prerequisite: GEOG 2801 (or equivalent) or consent of department. Lecture and project-based introduction to the basic concepts and technologies important to mapping, geographic information systems (GIS), and image analysis. Topics include map design fundamentals, thematic mapping, statistical cartography, the relationship of mapping to GIS, essential elements of GIS, data acquisition and analysis, visualization of output, remotely sensed imagery and GIS, GIS functions and associated applications, and spatial decision support systems. This course will meet the needs not only of students who intend to do additional work in geographic techniques, but those who need only a one-semester survey of concepts. Students who have earned credit in GEOG 3805 may not take GEOG 4805 for credit.

GEOG 4810 Introduction to Remote Sensing 3cr.
Prerequisite: three hours of geography or consent of department. A comprehensive introductory course that deals with fundamental physical principles of the science of remote sensing, the theory and practice of image interpretation, and information extraction techniques for aerial photos and satellite imagery. Includes remote sensing applications pertaining to management of natural resources and contemporary environmental issues. Practical exercises expose students to image processing and interpretation techniques.

GEOG 4815 Animation and Hypermedia in Cartography 3cr.
Prerequisite: GEOG 3805 or 4805 or consent of department. Lecture and lab-based examination of principles of catographic animation, and the role of hypermedia; and the World Wide Web in the dissemination access, and display of geospatial information. Topics include: the history of catographic animation, principles and mechanics of animation, digital color systems, affine transformations, autotracing and shapeblending, digital relief and fly-bys, interactivity in animation, hypermedia and Web GIS.

GEOG 4820 Remote Sensing II: Digital Image Processing and Analysis 3cr.
Prerequisite: GEOG 4810 or consent of department. This course examines the quantitative, computational, and applied aspects of remotely sensed data, with the goal of providing students with an in-depth understanding of image processing analysis, and interpretation techniques. Topics include scientific visualization, geometric, radiometric, and atmospheric correction: image enhancement and manipulation, information extraction, land-use and land-cover change detection, integration of GIS and remote sensing data and spatial modeling. Class applications will address issues related to environmental analysis, land and water resource inventory and use, and urban analysis. Practical exercises expose students to image processing and information extraction techniques.

GEOG 4821 Remote Sensing for Water Resource Analysis 3cr.
Prerequisite: GEOG 4810 or the consent of the department. Lecture and lab-based examination of the use of remote-sensing concepts and technologies to describe the geography of water resources, to monitor and to evaluate their content, and to assess their impact on physical settings and human communities. Topics include the spectral properties of water, measurement of selected water column constituents, and analysis of their impact on upwelling spectral signals. Also included are other applications to aquatic systems such as spectral identification, classification, and delineation of wetlands; and land-cover change detection.

GEOG 4822 Geomorphology 3cr.
(GEOG 4822 and GEOL 4822 are cross-listed) A study of land forms and the processes that have shaped the natural landscape. A study of the physical geography and geology of the United States through maps and aerial photographs is undertaken in the laboratory. Two hours of lecture and three hours of laboratory.

GEOG 4825 Cartographic Design 3cr.
Prerequisites: GEOG 4805 or consent of department. A detailed examination of modern computer-based map creation, with particular focus on map design issues. Lecture topics include map generalization, text labeling , color schemes, classification of statistical data, and various univariate and multivariate mapping techniques. Class exercises aim to develop practical skills in the use of GIS and graphic design software for cartographic purposes.

GEOG 4830 GIS Theories and Concepts 3cr.
Prerequisite: GEOG 3805 or 4805 or consent of department. Detailed lecture and lab-based examination of theories and concepts important to geographic information systems (GIS). Topics include GIS as a communication system, data acquisition and management, error management, GIS functions, GIS-based spatial analysis, GIS and regional scale, visualization concepts, the role of GIS in spatial decision support.

GEOG 4831 GIS Applications 3cr.
Prerequisite: GEOG 4830 or consent of department. Lecture and lab-based examination of the use of geographic information systems (GIS) in specific problem-solving contexts. Activities include identification of GIS uses in different socioeconomic and physical contexts, analysis of advanced technical issues (e.g., network analysis, location-allocation modeling, facilities management) and investigation of implementation issues.

GEOG 4833 Terrestrial Plant Ecology 3cr.
(BIOS 4833 and GEOG 4833 are cross-listed). Prerequisite: Consent of department. A broad overview of the specialized branches of plant ecology which will examine the essential interactions between plants and their environment. The focus of the course will be threefold: first, theoretical considerations providing students a solid background from which to examine plant environment interactions; second, the dynamic processes that continually shape the structure of plant communities; third, methodologies for sampling and analyzing plant communities. At least two field trips can be anticipated.

GEOG 4901 Field Methods in Geography 4cr.
Prerequisites: nine hours of geography including GEOG 2801 or equivalent and consent of department. Techniques of geographic field research. Projects will emphasize methods of gathering and organizing field data and subsequent geographical analysis of collected data. Two hours of lecture and six hours of laboratory.

GEOG 4991 Independent Work in Geography 1cr.
Prerequisite: admission by consent of department. Independent research under the direction of a designated faculty member. Regular conferences between the student and the instructor are required. GEOG 4991, 4992, 4993 may not be taken for a total of more than six hours credit. In no case may a student register in GEOG 3850 and 4991 through 4993 for a total of more than nine hours credit.

GEOG 4992 Independent Work in Geography 1cr.
Prerequisite: admission by consent of department. Independent research under the direction of a designated faculty member. Regular conferences between the student and the instructor are required. GEOG 4991, 4992, 4993 may not be taken for a total of more than six hours credit. In no case may a student register in GEOG 3850 and 4991 through 4993 for a total of more than nine hours credit.

GEOG 4993 Independent Work in Geography 1cr.
Prerequisite: admission by consent of department. Independent research under the direction of a designated faculty member. Regular conferences between the student and the instructor are required. GEOG 4991, 4992, 4993 may not be taken for a total of more than six hours credit. In no case may a student register in GEOG 3850 and 4991 through 4993 for a total of more than nine hours credit.

GEOG 6001 Problems in Land Use and Environmental Analysis 1cr.
Required of all master of arts in geography students. Examination of procedures and concepts important to the geographical analysis of human and environmental resources focusing on land resources. Topics include spatial analysis of rural and urban land use patterns, environmental consequences of land use decisions, and the role of environmental perception in land use decision-making behavior.

GEOG 6310 Seminar in Regional Geography 3cr.
Prerequisite: consent of instructor. Advanced analysis of the geography of a specific region. Region emphasized will vary depending on instructor. Course may be repeated once for credit.

GEOG 6330 Seminar in Cultural Historical Geography 3cr.
Prerequisite: consent of instructor. Intensive study of a topic in cultural and/or historical geography. Topic emphasized will vary depending on instructor. Seminar may be repeated once for credit.

GEOG 6530 Seminar in Environmental Geography 3cr.
Prerequisite: consent of department. Intensive research into selected topics, including but not limited to environmental processes, human-environment interactions, environmental impact assessment, ecological risk analysis, and public policy making. Focus on the course will vary depending on instructor. Seminar may be repeated once for credit.

GEOG 6550 Seminar in Physical Geography 3cr.
Prerequisite: consent of instructor. Intensive study of selected problems in soils analysis, climatology, bioclimatology, plant geography, zoogeography, and geographical ecology. Area of study will vary depending on the instructor. Seminar may be repeated once for credit.

GEOG 6605 Seminar in Land Use Analysis 3cr.
(GEOG 6605 and MURP 6605 are cross-listed) Prerequisite: consent of department. Intensive research into selected rural and/or urban land-use problems in their environmental and historical contexts. Course may be repeated once for credit.

GEOG 6820 Seminar in Remote Sensing 3cr.
Prerequisite: GEOG 4820 or consent of department. Intensive research into the theories and techniques of digital image processing at advanced level. Application of satellite remote sensing technology and analysis to real world problems, including image preprocessing, image enhancement, supervised and unsupervised classification, change detection, classification accuracy assessment, and methods of interfacing remote sensing derived information with geographic information systems. Seminar may be repeated once for credit.

GEOG 6825 Seminar in Geographical Information Science 3cr.
Prerequisite: GEOG 4830 or consent of department. Intensive, literature-based discussion of selected topics from Geographic Information Science. Selected topics may derive from geocomputational developments that extend the traditional GIS paradigm towards dynamic, interactive, and visual approaches, including uncertainty modeling, cellular automata, artificial neural networks and exploratory data analysis. Other topics may include Internet GIS and the societal impact of geographic information technology, including information access and privacy issues. Seminar may be repeated once for credit.

GEOG 6887 Geographic Thought and Research Methods 3cr.
Required of all Master of Arts in Geography students. Historical evolution of geography as an academic discipline and professional career; geographic subfields and career opportunities; and principles of library research and scholarly writing.

GEOG 6990 Directed Study 3cr.
Enrollment with consent of department. Independent research in the graduate student's area of specialization under the direction of a designated member of the graduate faculty.

GEOG 7000 Thesis Research 1-9cr.
To be repeated for credit until thesis is accepted. Section number will correspond to credit to be earned.

GEOG 7040 Examination of Thesis Only 0cr.
No credit. Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation.

German

Placement of students with high school preparation in German: students with sufficient preparation in German may enter the second, third, or fourth semester course in that language, thus completing the foreign language requirement in fewer semesters. Students interested in taking placement tests should contact the Foreign Language depart-

ments. Language courses in the 1001, 1002, 2001, 2002 sequence must be taken in that order.

GER 1001 Basic German I 3cr.
Offered each semester. A sequence of courses developing all four language skills: speaking, understanding, writing, and reading. Audio-visual material will be occasionally used.

GER 1002 Basic German 3cr.
Offered each semester. Continuation of the development of all four language skills: speaking, understanding, writing, and reading. The course includes the presentation and discussion of cultural material such as magazines, films, records, and other audio-visual items.

GER 2001 Intermediate German I 3cr.
Offered each semester. Continuation of the development of all four language skills: speaking, understanding, writing, and reading. The course includes the presentation and discussion of cultural material such as magazines, films, records, and other audio-visual items.

GER 2002 Intermediate German II 3cr.
Offered each semester. Readings and exercises in German. Special emphasis on comprehension as well as oral and written expression in the language.

GER 3002 German Phonetics 3cr.
Analysis of German phonetic principles with extensive practice and corrective drill in the language laboratory and with special reference to the teaching of German pronunciation to English-speaking students.

GER 3031 German Conversation 3cr.
Prerequisite: GER 2002 or the consent of the department. Conversation, oral, discussions, interpretations, and reports; practicing the spoken languages.

GER 3041 Advanced German Grammar 3cr.
An intensive course in German grammar designed especially for students who are concentrating in German or preparing to teach the language.

GER 3042 Advanced German Composition and Syntax 3cr.
Prerequisite: GER 3041. Intensive practice to enable the advanced student to acquire correctness and fluency in both oral and written expression as well as the ability to understand lectures in German.

GER 3100 Readings in German Culture and Civilization 3cr.
Prerequisite: GER 2002 or consent of department. Readings in German of selected works with discussion in English, analysis and cultural background. Recent cultural developments in the German speaking world will also be covered.

GER 3101 Survey of German Literature 3cr.
A study of German literature from the nineteenth century to the present.

GER 3102 The German Novelle 3cr.
Prerequisite: GER 3042. History and theory of this genre with extensive readings illustrative of its stages of development from Goethe to Thomas Mann.

GER 3106 German Lyric Poetry 3cr.
Prerequisite: GER 3100 or 3101 or consent of department. A study of selected poems with emphasis on representative authors of the different literary periods.

GER 3145 Lessing and His Age 3cr.
The history of the Enlightenment from Gottsched to Lessing with readings in various works of the Enlightenment; emphasis on Lessing's dramas and theoretical works.

GER 3150 The Romantic Movement in Germany 3cr.
A study of the Romantic writers in Germany from Novalis to Heine with emphasis on the cultural, philosophical, and political background of the Romantic Movement.

GER 3155 German Realism 3cr.
Prerequisite: GER 2042. Poetic realism, political literature, Biedermeier, and the dramas of Grabbe, Grillparzer, and Hebbel, including a study of the philosophical and historical background of the period.

GER 3165 20th Century Literature: Impressionism and Subsequent Trends 0cr.
A study of the characteristics of these movements, emphasizing representative writers such as George, Hofmannsthal, Rilke, Schnitzler, Hesse, Mann, Durrenmatt, and others.

GER 3180 German Literature Since 1945 3cr.
A study of contemporary trends in East and West German literature with extensive readings of representative works.

GER 3191 Independent Work 1cr.
Prerequisite: consent of department. Readings, conferences, and papers under the direction of a member of the faculty. The course allows the student to correlate and supplement the work covered in the departmental courses. Each course may be repeated, but combined credit may not exceed six semester hours.

GER 3192 Independent Work 1cr.
Prerequisite: consent of department. Readings, conferences, and papers under the direction of a member of the faculty. The course allows the student to correlate and supplement the work covered in the departmental courses. Each course may be repeated, but combined credit may not exceed six semester hours.

GER 3193 Independent Work 1cr.
Prerequisite: consent of department. Readings, conferences, and papers under the direction of a member of the faculty. The course allows the student to correlate and supplement the work covered in the departmental courses. Each course may be repeated, but combined credit may not exceed six semester hours.

GER 3199 Independent Work for Honors Students 3cr.
Preparation of an honors essay under the direction of a member of the German faculty.

GER 3402 Masterpieces of German Literature in Translation 3cr.
(Open to all students including German and German Education majors for degree credit as an elective.) German works in translation are chosen each time for reading, analysis, and discussion.

Greek

GREK 1011 Introductory Greek Reading I 3cr.
A course for beginners with emphasis on the development of the reading skill. Study of the fundamentals of grammar and readings from Homer.

GREK 1012 Introductory Greek Reading II 3cr.
A continuation of GREK 1011.

GREK 2191 Independent Work 1cr.
Prerequisite: consent of department. Readings and conferences under the direction of a member of the faculty. The course allows the student to supplement the work covered in the basic Greek course. Each course may be repeated but combined credit may not exceed six semester hours.

GREK 2192 Independent Work 1cr.
Prerequisite: consent of department. Readings and conferences under the direction of a member of the faculty. The course allows the student to supplement the work covered in the basic Greek

course. Each course may be repeated but combined credit may not exceed six semester hours.

GREK 2193 Independent Work 1cr.
Prerequisite: consent of department. Readings and conferences under the direction of a member of the faculty. The course allows the student to supplement the work covered in the basic Greek course. Each course may be repeated but combined credit may not exceed six semester hours.

History

HIST 1000 The Last Five Years 3cr.
Offered each semester. This course analyzes the historical processes of continuity and change through lectures, assigned readings, and organized discussions focused on issues and events of the last five years their background and development. Open to freshmen only.

HIST 1001 World History to 1600 3cr.
Offered each semester. Survey of the societies of Asia, Africa, the Americas, and Europe from the earliest times to the beginning of the modern world.

HIST 1002 World History since 1600 3cr.
Offered each semester. Survey of the societies of Asia, Africa, Latin America, and Europe in modern times.

HIST 1010 Introduction to African-American History 3cr.
Offered each semester. An introduction to the origins and patterns of African-American life and culture in the United States. Lectures and discussions.

HIST 1019 History of Western Civilization Honors 3cr.
Survey of movements and institutions that contributed most to present day civilization. First semester: ancient and medieval periods; second semester: modern period. This is an honors course for qualified students.

HIST 1029 History of Western Civilization Honors 3cr.
Survey of movements and institutions that contributed most to present day civilization. First semester: ancient and medieval periods; second semester: modern period. This is an honors class for qualified students.

HIST 2000 Environmental History 3cr.
The rise and decline of states, empires, and civilizations in world history from ancient times to the modern period, seen from an environmental perspective.

HIST 2080 The Impact of Science on Western Society 3cr.
A non-technical survey of the impact of scientific ideas, methods, and discoveries on life and thought in the western world, examined through critical episodes in the history of science from ancient to modern times and their impact on society.

HIST 2086 The Jews in the Making of Europe 3cr.
Spring semester. A study of the Jews as a minority ethnic group in western civilization, focusing on the contributions of Judaism to the western religious and intellectual tradition, the role of Jews in the growth of Europe's economy, and the development of anti-Semitism and the Jewish response to it.

HIST 2087 The Jews in the Making of America 3cr.
Fall semester. The Jewish experience in America viewed as an example of cultural conflict and adaptation; the effects of the Jewish struggle to transmit and preserve a cultural heritage and identity under pressures of external hostility and internal conflicts.

HIST 2201 History of Asian Civilizations 3cr.
A comparative approach to the study of Asia divided into five culture zones (West, South, East, Southeast, and Central) from the dawning of civilization to the sixteenth century C.E.

HIST 2202 History of Asian Civilizations 3cr.
A comparative approach to the study of Asia divided into five culture zones (West, South, East, Southeast, and Central) from the sixteenth century to the present.

HIST 2301 Introduction to Archaeology 3cr.
A survey of the development of archaeological research emphasizing modern principles and current techniques of excavation and dating.

HIST 2302 The Emergence of Christianity 3cr.
A study of the Jewish and Hellenistic background of Christianity, the life of Jesus, and the development of the Church during the first two centuries A.D.

HIST 2305 Modern European History, 1789 - Present 3cr.
A survey of modern European history from the French Revolution to the present, with particular emphasis on social, political, and cultural developments.

HIST 2307 English History to 1688 3cr.
Medieval and early modern England to 1688; medieval society and institutions, constitutional developments, Tudor society and the English Reformation, Stuart kings and revolution.

HIST 2308 English History Since 1688 3cr.
Modern England since 1688; evolution of parliamentary government, the industrial revolution and labour, the rise and decline of the British Empire, Britain since World War II.

HIST 2360 English Constitutional and Legal History 3cr.
Origin and development of English legal institutions; their influence on American legal institutions.

HIST 2400 Introduction to Latin American History 3cr.
Survey of the history of Latin America, from first contact between Europeans and indigenous Americans to the present day.

HIST 2501 American History 3cr.
Offered each semester. Survey of American history from the earliest times to 1860.

HIST 2502 American History 3cr.
Offered each semester. Survey of American history from 1860 to the present.

HIST 2587 Women in American History 3cr.
An examination of the diverse historical experience of women in America from the colonial period to the present.

HIST 2601 History of Louisiana 3cr.
Offered each semester. A survey of the political, economic, social, and cultural development of Louisiana from the founding of the French colony to the present day.

HIST 2602 African Americans in Louisiana 3cr.
A study of the role of African Americans in the development of Louisiana with particular emphasis on their contributions to the history of the state, its traditions, and culture.

HIST 2603 The History of New Orleans 3cr.
The social, economic, and political growth of New Orleans from colonial times to the present, with particular attention to its ethnic groupings and physical development.

HIST 2701 Africa To 1830 3cr.
Survey of African History from the peopling of the continent to the early nineteenth century. This course will address the formation of African states, trade and technology, culture and political-economy, the impact of Islam and Christianity, and to the Atlantic slave trade.

HIST 2702 Africa 1830-Present 3cr.
Survey of African history from the end of the Atlantic slave trade through the colonial period and the struggle for independence to the nation-states to the present day.

HIST 2991 Special Studies in History 3cr.
Prerequisite: consent of department. Topic may vary from semester to semester. The course may be repeated once for credit.

HIST 3001 Historical Thought and Writing 3cr.
This course is a practicum designed to introduce undergraduate students to the actual process of writing history. Practice in critical analysis, research methodology, documentation, bibliographic forms, and composition, culminating in a major research paper.

HIST 3225 The War in Vietnam 3cr.
A history of the war in Vietnam, 1945-1975, with the emphasis on the American involvement, 1960-1973.

HIST 3315 Contact and Conquest in the Americas 3cr.
Prerequisite: HIST 2400 or permission of instructor. Survey of the impact of European expansion in the Atlantic world emphasizing contacts among Europeans, Native Americans and Africans and the formation of new societies in the Americas (1492 - 1700).

HIST 3401 Colonial Latin America 3cr.
History of the peoples and institutions of colonial Latin America. Prerequisite: HIST 2400 or permission of instructor.

HIST 3402 Modern Latin America 3cr.
Survey of socioeconomic and political development and change and their impact on Latin America's peoples in the nineteenth and twentieth centuries. Prerequisite: HIST 2400 or permission of instructor.

HIST 3551 African-American History 3cr.
The history of African-Americans from African origins to 1860.

HIST 3552 African-American History 3cr.
The history of African-Americans since 1860.

HIST 3575 United States Presidents and Contemporary History 3cr.
A special view of American history, seen from the perspective of our national leaders. The course will deal with the Presidents since Franklin D. Roosevelt, their earlier careers, their programs, their foreign policies, their wars, their successes, and their failures.

HIST 3586 American Social and Cultural History, 1600-1865 3cr.
A study of art, music, and architecture as well as the clothing, food, houses, work, and amusements of early Americans.

HIST 3588 Religion in American History 3cr.
The role of religion in shaping American attitudes and institutions.

HIST 3595 Academic Year Abroad: Special Topics in History 3cr.
This course in only offered through UNO's Academic Year Abroad (AYA) in Innsbruck, Austria and can be repeated once for credit.

HIST 3992 Special Studies in History 3cr.
Topic may vary from semester to semester. The course may be repeated once for credit.

HIST 3995 Independent Study: Readings 1cr.
Prerequisite: consent of department. The courses consist of directed readings designed to meet the needs and interests of the individual student; regular conferences between the student and the instructor are required.

HIST 3996 Independent Study: Readings 1cr.
Prerequisite: consent of department. The courses consist of directed readings designed to meet the needs and interests of the individual student; regular conferences between the student and the instructor are required.

HIST 3999 Senior Honors Thesis 1-6cr.
Prerequisite: consent of department and the director of the Honors Program. Directed research culminating in a written thesis to meet the requirements for graduation with University Honors and Honors in History. May be repeated for up to a total of six credits. Section number will correspond with credit to be earned.

HIST 4001 The City and Civilization 3cr.
Major developments in world urban history from ancient times to the present with emphasis on the European city.

HIST 4003 Modern Military History 3cr.
An examination of war and military institutions in western society since the end of the Middle Ages.

HIST 4005 History of Social Radicalism 3cr.
A study of socialist and communist ideas and political action in the formation of the modern world.

HIST 4201 History of Modern China 3cr.
The Empire of the Manchus; China's internal development from 1842 to 1911; political, social, and intellectual movements in the Republican period, 1911-1949; and China under communism.

HIST 4301 The Ancient Near East 3cr.
A study of the civilizations of Mesopotamia, Egypt, Anatolia, Syria, Palestine, and Persia from earliest times to the Hellenistic period.

HIST 4302 Ancient Greece 3cr.
A history of Greek civilization from earliest times to the end of the Hellenistic period.

HIST 4303 Roman History 3cr.
A history of Roman civilization from the beginning to the empire of Constantine.

HIST 4304 Ancient Israel 3cr.
A study of the history, archaeology, and religious development of ancient Israel from earliest times to the end of the first century B.C.

HIST 4306 The Early Middle Ages 3cr.
An examination of changes in European civilization from the disintegration of the Roman hegemony to the eleventh century.

HIST 4307 The High Middle Ages 3cr.
An examination of European civilization in the eleventh, twelfth, and thirteenth centuries with emphasis on cultural and institutional developments.

HIST 4310 The Renaissance and the Reformation 3cr.
Transition from medieval to modern conditions, emphasizing social, economic, and cultural changes of the fourteenth and fifteenth centuries and the religious upheaval of the sixteenth century.

HIST 4320 The Rise of Modern Europe 3cr.
History of Europe in the seventeenth and eighteenth centuries.

HIST 4330 French Revolution and Napoleon 3cr.

HIST 4340 Nineteenth Century Europe 3cr.

HIST 4344 Europe in the Era of Imperialism and World War I 1871-1918 3cr.

HIST 4345 Twentieth Century Europe 3cr.
Analysis of world power politics, war dynamics, changing imperialism, emerging totalitarianism, statism, nationalistic policies and problems. HIST 4345 treats the period 1918 to 1945; HIST 4346 treats the period 1945 to the present. Either semester may be taken independently.

HIST 4346 Twentieth Century Europe 3cr.
Analysis of world power politics, war dynamics, changing imperialism, emerging totalitarianism, statism, nationalistic policies and problems. HIST 4345 treats the period 1918 to 1945; HIST 4346 treats the period 1945 to the present. Either semester may be taken independently.

HIST 4361 Tudor England 3cr.
England from the Wars of the Roses to the death of Elizabeth, 1471-1603. Moves from Richard III's death on Bosworth field to Henry VIII and Anne Boleyn, Edward VI, "Bloody" Mary, and the Age of Elizabeth, with special emphasis on the Shakespearean Renaissance, the rise of Parliament, and the naval exploits of the English "Sea Dogs."

HIST 4362 Stuart England 3cr.
The political, economic, and cultural history of England in the seventeenth century, 1603-1714.

HIST 4365 The Age of Churchill 3cr.
Political, social, and economic developments in England and the British Empire during recent times; emergence of the modern social state.

HIST 4366 The British Empire 3cr.
General survey of the British Empire and development of the British Commonwealth of Nations.

HIST 4367 The Age of Louis XIV 3cr.
France in the seventeenth century. The course will focus on the formation of the modern state with a political-military bureaucracy that was imitated, like Versailles, on a lesser scale in other countries; the development of the French colonial empire, including Louisiana; and the dominant cultural, intellectual, scientific, and religious trends along with their impact elsewhere in Europe. Several slide lectures will illustrate the art and architecture of the period.

HIST 4368 Modern France 3cr.
Major political, social, and economic forces that molded the French nation after 1815.

HIST 4369 Modern Spain 3cr.
An examination of the formation of modern Spain, emphasizing the transition from the pluralistic society of the middle ages to the orthodoxy of Ferdinand and Isabella and the imperialism of the sixteenth century, and tracing the development of social, economic, and political structures to the present day.

HIST 4371 Modern Germany 3cr.

HIST 4373 History of the Hapsburg Empire 3cr.
A study of the Hapsburg Empire from its emergence as a major power in the eighteenth century to the disintegration of Austria-Hungary in 1918.

HIST 4375 Tsarist Russia 3cr.
Russian institutions and life under the Romanovs.

HIST 4376 Modern and Contemporary Russia 3cr.
Focus on late Imperial and Soviet periods.

HIST 4380 Europe's Quest for Power and Peace 3cr.
A study of the major developments in European international relations with emphasis on diplomacy as an instrument of national policy. The first semester examines developments from the Congress of Vienna to the origins of the First World War; the second covers from the Versailles peace settlement through Second World War and the Cold War to the present. Either semester may be taken independently.

HIST 4381 Europe's Quest for Power and Peace 3cr.
A study of the major developments in European international relations with emphasis on diplomacy as an instrument of national policy. The first semester examines developments from the Congress of Vienna to the origins of the First World War; the second covers from the Versailles peace settlement through Second World War and the Cold War to the present. Either semester may be taken independently.

HIST 4382 The European Intellectual Tradition 3cr.
This course is not a history of formal thought, but relates central ideas to political, economic, social, artistic, and scientific movements. The first semester concentrates on the earlier periods and the second semester on modern Europe. Either semester may be taken independently.

HIST 4383 The European Intellectual Tradition 3cr.
This course is not a history of formal thought, but relates central ideas to political, economic, social, artistic, and scientific movements. The first semester concentrates on the earlier periods and the second semester on modern Europe. Either semester may be taken independently.

HIST 4401 Latin American Cities 3cr.
The course examines the formation and function of cities in Latin America beginning with Iberian and pre-Columbian antecedents and tracing urban development in Spanish and Portuguese America to the present day.

HIST 4403 History of Mexico 3cr.
Political, economic, and social developments from the colonial period to the present.

HIST 4406 Caribbean Civilization 3cr.
Survey of the West Indies, Central America, Colombia, and Venezuela from colonial to modern times.

HIST 4501 The Colonial Period in American History 3cr.
An examination of the establishment and development of the English colonies in North America.

HIST 4502 The Revolutionary Period in American History 3cr.
An analysis of the causes, progress, and consequences of the revolution in the British colonies of North America.

HIST 4503 The New Nation 1789-1815 3cr.
Development of American political, social, and cultural institutions during the formative years of the new Republic.

HIST 4504 The Jackson Era 1815-1845 3cr.
Examination of the nature of Jacksonian Democracy and its treatment in American historiography.

HIST 4505 The Disruption of the Union 1845-1861 3cr.
A study of the divisive political, social, and economic forces which intensified in the 1840s and culminated in the Civil War.

HIST 4506 Civil War and Reconstruction 3cr.
A study of the wartime problems of the Union and Confederacy, the consequences of the war, and the efforts to create a new Union.

HIST 4508 America in Transition 1877-1900 3cr.
An intensive study of the rise of the United States as an industrial and world power with particular stress on the changing patterns within American society.

HIST 4510 Recent American History 3cr.
Historical evolution of the United States in recent times.

HIST 4511 Recent American History 3cr.
Historical evolution of the United States in recent times.

HIST 4521 The New South 3cr.
Political, social, and economic changes in the South since 1880.

HIST 4543 United States Urban History 3cr.
Urban development in the United States from the colonial town to the twentieth century megalopolis.

HIST 4544 Religion in American History 3cr.
The role of religion in American life from early colonial times to the Civil War.

HIST 4545 Religion in Modern American History 3cr.
The role of religion in American life from the Civil War to the present.

HIST 4547 Women in the Modern American City 3cr.
The roles of women in urban American culture since World War II with emphasis on issues of gender, ethnicity, and class.

HIST 4551 African-American Slavery 3cr.
A study of the origins and the political, economic, and social structure of slavery in the European colonial empires of the western hemisphere with special emphasis on the British Empire and the United States.

HIST 4552 Black Movements and Messiahs 3cr.
A study of the organizations, leadership, and programs of late nineteenth and twentieth century movements that have sought escape from personal and institutional racism in the United States.

HIST 4555 The Civil Rights Era 3cr.
An examination of race relations in the United States from the New Deal of the 1930s to the 1980s.

HIST 4561 U.S. Constitutional Development to 1865 3cr.
The historical development of the U.S. Constitution from its British origins to the end of the American Civil War.

HIST 4562 U.S. Constitutional History Since 1865 3cr.
The role of the constitution in the transformation of the federal union into the indivisible nation.

HIST 4570 World War II-An International History 3cr.
A look at World War II from a global perspective: the intricate international diplomacy and strategic planning of the principal combatants; the war's major military campaigns and battles, its impact on the involved societies and economies, its brutal effect on victims, its difficult choices of appeasement/collaboration or resistance, as well as the postwar "mastering" of the war's harsh memories.

HIST 4575 The Cold War Era 3cr.
An examination of the role the United States in the international arena and the nuclear arms race during the Cold War (1945-1989) and its repercussions on domestic politics.

HIST 4580 Diplomatic History of the United States 3cr.
Historical evolution of American foreign policies since 1776.

HIST 4581 Diplomatic History of the United States 3cr.
Historical evolution of American foreign policies since 1776.

HIST 4582 Sources of American Thought 3cr.
Ideas and beliefs which have shaped American life, traced from early colonial times to 1865. Special attention to Puritan attitudes, the Enlightenment, southern particularism, Romantic currents, and perceptions of nature and technology.

HIST 4583 Modern American Thought 3cr.
Ideas and beliefs which have shaped American life since the Civil War. Special attention to the impact of Darwinian evolution, idealism, and pragmatism, modernist and anti-modernist attitudes, the South, and radical and conservative critiques of American society.

HIST 4587 American Social and Cultural History 1865 to the Present 3cr.
A study of the historical development of American Cultural and Social Movements, with an emphasis upon literature, art, architecture, and popular culture.

HIST 4603 Research in New Orleans History 3cr.
(HIST 4603 and URBN 4603 are cross-listed) Prerequisite: HIST 2603 or HIST 4543 or consent of instructor. A detailed survey of qualitative research techniques, their application to local and urban history, and the preparation of a written project based on primary research in New Orleans history.

HIST 4926 New Orleans Ethnic Studies for Teachers 3cr.
An analysis of the different peoples who came to New Orleans and their cultural contributions to the unique features of the city. Conceptual structure, techniques, and basic bibliography for teaching the subject in local secondary schools. Not normally recommended for history majors.

HIST 4943 World History for Teachers 3cr.
This course is primarily intended for teachers. New interpretations in world history, organizational and conceptual structures, classroom techniques, materials, and basic bibliography for teaching world history at the secondary level.

HIST 4945 New Interpretations of American History for Teachers 3cr.
A course designed primarily for secondary school social science teachers on recent interpretations of U.S. history. Appropriate teaching techniques and basic bibliography.

HIST 4991 Special Studies in History 3cr.
Prerequisite: consent of department. Topic may vary from semester to semester. The course may be repeated once for credit.

HIST 6001 Historical Research and Writing 3cr.
Introduction to research methods, historical genres, proper usage and approaches to historical writing.

HIST 6301 Proseminar in European History 3cr.
Intensive reading on a particular problem area, or period of European history. Discussions, conferences, short reports, or short papers. Each course may be taken more than once for credit.

HIST 6302 Seminar in European History 3cr.
Intensive research on a particular problem culminating in presentation of a paper. Course may be taken more than once for credit.

HIST 6501 Proseminar in American History 3cr.
Intensive reading on a particular problem, area, or period of American history. Discussions, conferences, short reports, or short papers. May be taken more than once for credit.

HIST 6502 Seminar in American History 3cr.
Intensive research on a particular problem culminating in presentation of a paper. May be taken more than once for credit.

HIST 6601 Proseminar in Special Topics 3cr.
Intensive reading on a particular problem, area, or period of history, including topics that are comparative in nature, focusing principally on areas of the world outside of the United States. Discussions, conferences, short reports, or essays. May be taken more than once for credit.

HIST 6602 Seminar in Special Topics 3cr.
Intensive research on a particular problem, area, or period of history, including topics that are comparative in nature, focusing principally on areas of the world outside the United States, culminating in presentation of a paper. May be taken more than once for credit.

HIST 6803 Proseminar in Urban History: Social and Cultural Change 3cr.
DURB 6803, DURB 6805, and HIST 6803 are cross-listed) Prerequisite:

DURB/URBN 6850 or HIST 4543 or consent of instructor. Intensive reading in urban, social, and cultural change. Focus will be on American, European, and/or Third World urban development, from the founding of initial settlements to the present day. Discussions, conferences, short reports, and essays will be required. May be taken more than once for credit.

HIST 6804 Seminar In Urban History 3cr.
Intensive research on a particular problem culminating in the presentation of a paper. May be taken more than once for credit.

HIST 6995 Independent Study 3cr.
Prerequisite: consent of individual faculty member and approval by graduate coordinator. A plan for directed readings or research will be developed by the student and the individual faculty member. Open to degree students only. May be repeated once for credit.

HIST 7000 Thesis Research 1-9cr.
To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

HIST 7040 Examination or Thesis Only 0cr.
Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

Hotel, Restaurant and Tourism Administration

HRT 2000 Introduction to Hotel, Restaurant, and Tourism Administration 3cr.
A comprehensive survey of the lodging, food service, and travel industries emphasizing their historical development and current trends by examining the social, economic, technological, and geographic factors contributing to their evolution. Basic operating principles and industry concepts and terms are stressed. Guest lecturers are featured, affording students the opportunity to discuss hospitality careers with local industry executives and leaders.

HRT 2020 Hotel Operations 3cr.
Study of the operating departments and functions of contemporary hotels. Topics will include analysis of commercial, transient, resort, and convention properties. The course will examine the management processes and problems in operating hotels.

HRT 2030 Principles of Food Production 3cr.
A study of foodservice organizations utilizing the foodservice systems model as the framework for students to build a sound understanding of how managers can efficiently and effectively transform human, material, facility and operational resources to create meals, customer satisfaction, employee satisfaction, and financial accountability. The course will include demonstrations of the thirteen core cooking methods and a lab fee is required. Preference given to Hotel, Restaurant and Tourism Administration majors.

HRT 2050 Principles of Travel and Tourism 3cr.
An introduction to the principles of domestic and international tourism analyzing its history, organization and transportation modes; the motivation of travel and travel choice; tourism supply, demand, economic, and destination development; tourism marketing and research; and the future of tourism in international social and economic development.

HRT 2070 Introduction to the Conventions, Events, and Meetings Industry 3cr.
The course serves as an introduction to the segment of the hospitality industry dealing with meetings, conventions, events, and incentive travel. The course provides a survey of the industry players; national associations; career opportunities; the wants and needs of the attendee as well as sponsors and organizers.

HRT 3002 Hotel, Restaurant, and Tourism Work Experience 1cr.
The work experience will normally be completed during the progress through the HRT program. Students are advised that most benefit will be gained by completing this requirement in a number of positions that provide insight into a range of hospitality and tourism career tracks. The course consists of 600 hours of work experience that must be documented and approved on a pass/fail basis by the faculty advisor. Formal enrollment should take place when the 600 hours requirement is completed.

HRT 3011 Tourism and Hospitality Marketing 3cr.
Prerequisite: MKT 3501. A survey of modern marketing theory and techniques as applied in the tourism and hospitality industry. Emphasis will be placed on services marketing, and topics include an analysis of hospitality customer needs, marketing planning, segmentation, positioning, and promotion.

HRT 3016 Legal Environment in the Hospitality Industry 3cr.
Nature and function of law and legal institutions in society; with emphasis on those areas of law most relevant to hospitality operations. Topics include attributes of hotels, licensing, regulation, hotel-guest and restaurant-patron relationship, obligations of hotels, guest property, rights of hotels and restaurants, sale of alcoholic beverages, and travel industry law.

HRT 3017 Service Organization Management in Hospitality 3cr.
Principles and practices of service management as applied to the hospitality firm. Emphasis will be upon the human resource component of the organization as well as the practical application of theoretical concepts.

HRT 3140 Cost Control of Hospitality Operations 3cr.
Study of factors important in the control of expenses in food service and lodging operations. Topics will include: purchasing, receiving, storage, issuing, budgeting, menu pricing, labor cost control, and the use of source documents and forms.

HRT 3141 Management of Beverage Service 3cr.
An advanced, comprehensive examination of beverage operations in the hospitality industry. Topics will include: purchasing, storing, issuing and serving alcoholic beverages; survey and study of wines, spirits, and beers; and a study of laws and social considerations pertaining to the serving of alcoholic beverages. Restricted to Hotel, Restaurant, and Tourism Administration majors.

HRT 3145 Layout, Design, and Maintenance of Hospitality Facilities 3cr.
A study of facilities design and layout for effective delivery of hospitality services. Topics include equipment selection, space allocation, maintenance of the physical plant in hospitality facilities, principles of utilities management, ventilation, sanitation, acoustics, furniture and fixture selection, and maintenance.

HRT 3150 Tourism Planning and Operations 3cr.
Prerequisite: HRT 2050. This course examines the tourism planning approach, considering political, physical, social, and economic elements as interrelated and interdependent components. The development process of various tourism products at the national, regional, and community levels will be examined including the functions of tour operators, wholesale and retail travel agencies.

HRT 3240 Club Management and Operations 3cr.
An analysis of the operation and management of private and public clubs (golf, tennis, military, country clubs, professional, and business clubs).

HRT 3290 Hospitality Internship 3cr.
Under the supervision of an HRT faculty member, the student will intern at the site of a participating organization for a specific research project or set of activities. Readings and other research activities may be assigned. Students desiring to take this course should apply a semester in advance for School approval. Only open to Hotel, Restaurant, and Tourism Administration majors with overall grade point average of 3.00 or above or approval of School required. A minimum of eight hours per week at the site of a participating organization will be required.

HRT 3295 Independent Study in Hotel, Restaurant, and Tourism Administration 1-3cr.
Offered each semester. Prerequisite: Approval of the directed individual study by the director of HRT and the supervising professor is required prior to registration. The student should refer to the College of Business Administration Policy on Undergraduate Directed Individual Study available in the School of Hotel, Restaurant, and Tourism Administration. Arranged individually in order to provide latitude for specialized study and research under the direction of a faculty member. Progress reports, readings, conferences, and a research paper are required. May be repeated for up to six hours credit.

HRT 4000 Policy Issues in Tourism and Hospitality 3cr.
Prerequisites: FIN 3300, HRT 2000, 3011, 3017, and 3140. A case-oriented course in strategic planning and management in the hospitality industry. Students will analyze tourism and hospitality industry cases to develop their skills in formulating and implementing business strategies. Not available for graduate credit.

HRT 4110 Tourism and Hospitality Research 3cr.
Prerequisites: HRT 2050, 3011, MATH 2314 or the consent of the department. An advanced course in tourism research techniques for the tourism and the hospitality industry. Students will formulate and execute a research study including research design, data collection, computerized data analysis and interpretation of results. Not available for graduate credit.

HRT 4120 Advanced Lodging Operations Management 3cr.
Prerequisites: HRT 2020 and 3017. An in-depth study of management practices employed in the operation of hotels, motels, resorts, cruise ships, and other institutional lodging facilities. This course will focus on the organizational structure and management concepts that are applied to lodging operations.

HRT 4150 Meeting, Event, and Convention Planning 3cr.
Prerequisite: HRT 2070 or consent of department. This is an advanced course designed as the second course in the HRT Concentration in the Meetings, Events, Exhibitions, and Convention industry. This courses teaches how to plan, organize, staff and evaluate any meeting or event. The importance of this course is further justified given the increasingly important role meetings, events, exhibitions, and conventions play in both the local and national economies. Learning will take place through a combination of lectures, readings, guest speakers, and a term project.

HRT 4155 The Management and Planning of Conventions, Events, and Meetings 3cr.
Prerequisites: HRT 2070 and 3011 or consent of department. An advanced study of the management of in-bound tourism operations, conventions, expositions, meetings, and the facilities employed to provide these services. Topics will include meeting planning, convention services, convention center, and arena management.

HRT 4160 Theories of Casino Gaming 3cr.
Prerequisite: MATH 2314. A study of theories pertinent to casino games including but not limited to craps, money wheel, slot machines, keno, blackjack, roulette, baccarat, and poker. Not available for graduate credit.

HRT 4165 Management of Casino Gaming Enterprises 3cr.
A study of the organization, management, staffing, audit, regulation, internal control, and reporting requirements of gaming operations.

HRT 4230 Advanced Food Service Management 3cr.
Prerequisites: HRT 2030, 3140, 3145 or the consent of the School. Planning and managing the commercial foodservice operation including independent restaurants, banquets and catering, cafeterias, institutional foodservice, and quick service restaurants. Topics will include forecasting and budgeting, menu development, staffing, establishing operational control, and management decision making.

HRT 4250 International Tourism 3cr.
Prerequisites: HRT 2050, 3011, or consent of department. A comprehensive examination of the complex world of international tourism as a modern mass cultural activity. The course will emphasize world geography and traveler flows, political environments and security relationships, government planning and destination development, economic development strategies and international competition, and the role of international agencies and organizations in world tourism.

HRT 4290 Special Topics in Hotel, Restaurant, and Tourism Administration 3cr.
Prerequisite: consent of the school. An advanced study of contemporary issues in Hotel, Restaurant, and Tourism. May be repeated for credit when topics vary.

HRT 4299 Senior Honors Thesis 3cr.
Prerequisite: consent of school and the director of the Honors Program. Only students maintaining an overall 3.0 grade-point average and a 3.5 grade-point average in Hotel, Restaurant, and Tourism Administration may apply. Senior honors thesis research in Hotel, Restaurant, and Tourism Administration under the direction of a faculty member. Students may earn up to a total of six credits. Oral defense of thesis is required. Not available for graduate credit.

HRT 6001 Survey of the Hospitality & Tourism Industry 3cr.
This course examines the areas of critical importance in the hotel, restaurant, and tourism industries. Students will be presented with a global knowledge of the industry, individual organizations, and current management trends and issues through the use of case studies. The management of hospitality organizations will be discussed in the context of various management related problems.

HRT 6102 Technology for Tourism & Hospitality Management 3cr.
This course is designed to investigate and present topics, trends, and issues of using technology in the hospitality and tourism industry. The course will focus on technology to manage information and examine the Internet as a management and marketing tool. This is a particularly dynamic area, crucial for the future success of managers, and it will feature presentations and interactions with industry professionals.

HRT 6200 Hospitality and Tourism Operations Analysis 3cr.
Prerequisite: HRT 6001 or consent of school. Qualitative and quantitative analysis of management/operational problems specific to the hospitality and tourism industry will be used to synthesize knowledge with the more advanced and unique aspects of hospitality/tourism operations. Management theories, marketing principles, financial concepts, and advanced analytical techniques are

applied to the hospitality and tourism industry. Readings and case analysis are used to illuminate the diverse segments of the industry.

HRT 6202 Hospitality and Tourism Research Methods 3cr.
This course is designed to introduce students to the research function using both descriptive and inferential statistics. This course will aid students in understanding the role of information in decision-making and in learning the techniques involved in acquiring information. Students will learn the research process and be able to evaluate the appropriateness of research methodology.

HRT 6203 Marketing Applications for Hospitality & Tourism Industry 3cr.
This course is designed to apply the fundamentals of marketing to the hospitality and tourism industry. It involves understanding that the world around us alters the decisions we make about our product/service, price, distribution, and communications. Emphasis will be on strategic marketing and the development of marketing plans.

HRT 6204 Hospitality & Tourism Internship 3cr.
This supervised internship allows students to learn by working with the sponsoring hospitality or tourism organization to critically examine a major aspect of their operations. Objectives are set and evaluation is accomplished jointly by the program coordinator, the student, and the on-site supervisor. A research report on the internship is required.

HRT 6205 Change Management for Hospitality & Tourism 3cr.
This course examines the critical area of change management in a service quality environment. It discusses the components of leadership, change management, and human resource management that have increasingly become recognized as the main drivers of success for all hospitality and tourism organizations. The course sets these components within the quality improvement framework. It further examines the development of the quality movement and the issues of measuring quality within the hospitality and tourism context.

HRT 6250 Tourism Destination Development 3cr.
Prerequisite: HRT 6001 or consent of school. Planning, development, and marketing of tourism at the destination level, from small communities to cities, regions, or countries. Approaches and guidelines for the integrated and sustainable development of tourism that is coherent with community needs, and for the marketing of tourism destination. The social, environmental, and economic costs and benefits of tourism with their implications for planning and management. This course will require an active participation of the students through the presentation of cases, and the elaboration of tourism development and marketing plans.

HRT 6300 Hospitality & Tourism Finance & Revenue Management 3cr.
This course examines the critical areas of financial management and revenue maximization as applied to the hospitality and tourism industry. Course topics include interpretation and analysis of financial statements, forecasting, budget preparation and analysis, and applications of Cost-Volume-Profit and Yield Management models. Emphasis will be placed upon the integration of financial management with revenue maximization.

HRT 6301 Hospitality & Tourism Industry Strategic Management 3cr.
Concepts and formulation of business strategy are analyzed and determined in the framework of the total business environment. Roles and actions of top management and supervisory personnel in developing and implementing policy and strategy are examined in the highly competitive settings of the hospitality and tourism industry. Case studies are utilized to solve problems in the classroom. This course should be taken in the final semester of study and it will draw extensively upon the knowledge and skills acquired throughout the program. Open to M.S. in Hospitality and Tourism Management students only.

HRT 6491 Independent Study In Hospitality & Tourism 3cr.
Prerequisite: consent of department. Readings, weekly or biweekly reports, conferences, and a research paper under the direction of a graduate faculty member is required.

HRT 6495 Special Topics in Hospitality & Tourism 3cr.
An intensive study of selected special topics in hospitality and tourism management. Topics will vary based on contemporary needs as dictated by the discipline as well as the interests of the students and the instructor.

HRT 7000 Thesis Research 3-6cr.
Offered each semester. Prerequisite: HRT 6202 and permission of the department. To be repeated for credit until thesis is accepted.

HRT 7040 Examination or Thesis Only No Credit 0cr.
Open to students in a thesis program who have only (other than application for degree) on the final typing and acceptance by the Graduate School of their thesis or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

Humanities

HUMS 4090 Special Topics In Humanities 3cr.
An interdisciplinary course in the humanities. Topics will vary. May be repeated once for

Italian

Placement of students with high school preparation in Italian: students with sufficient preparation in Italian may enter the second, third, or fourth semester course in that language, thus completing the foreign language requirement in fewer semesters. Students interested in taking placement tests should contact the Foreign Language departments. Language courses in the 1001, 1002, 2001, 2002 sequence must be taken in that order.

ITAL 1001 Basic Italian I 3cr.
The first in a sequence of courses developing all four language skills; speaking, understanding, writing, and reading. No previous knowledge of the language required.

ITAL 1002 Basic Italian II 3cr.
Prerequisite: ITAL 1001 or consent of department. A continuation of the development of the four language skills.

ITAL 2001 Intermediate Italian I 3cr.
Prerequisite: ITAL 1002 or consent of department. A continuation of the development of the four language skills with emphasis on reading and understanding.

ITAL 2002 Intermediate Italian II 3cr.
Prerequisite: ITAL 2001 or consent of department. A continuation of the development of the four language skills with special emphasis on oral expression in the language.

ITAL 3031 Italian Conversation 3cr.
Prerequisite: ITAL 2002 or consent of instructor. Conversation, oral discussions, interpretations, and reports; practicing the spoken language.

ITAL 3100 Survey of Italian Literature 3cr.
Prerequisite: ITAL 2002 or 3031 or consent of department. A study

of the main authors and literary movements of Italian literature from its origins to the present. Designed to introduce students to the reading and analysis of important works in the original language. Lectures and discussions will be in English.

ITAL 3191 Independent Work 1cr.
Prerequisite: consent of department. Readings and conferences under the direction of a member of the faculty. The course introduces the student to major authors and movements of Italian literature. Each course may be repeated, but combined credit may not exceed six semester hours.

ITAL 3192 Independent Work 1cr.
Prerequisite: consent of department. Readings and conferences under the direction of a member of the faculty. The course introduces the student to major authors and movements of Italian literature. Each course may be repeated, but combined credit may not exceed six semester hours.

ITAL 3193 Independent Work 1cr.
Prerequisite: consent of department. Readings and conferences under the direction of a member of the faculty. The course introduces the student to major authors and movements of Italian literature. Each course may be repeated, but combined credit may not exceed six semester hours.

ITAL 3402 Masterpieces of Italian Literature in Translation 3cr.
Different Italian works in translation are chose each time for reading, analysis, and discussion.

Japanese

JAPN 1001 Basic Japanese 3cr.
A sequence of courses for beginners that aims at the acquisition of the four basic language skills: speaking, understanding, reading, and writing. The mastery of basic language structures will be achieved through aural-oral exercises and practice. The Japanese writing system will be introduced from the beginning (all Katakana and Hiragana). Kanji (Chinese characters) will be gradually introduced later in the first course.

JAPN 1002 Basic Japanese 3cr.
A continuation of JAPN 1001.

JAPN 2001 Intermediate Japanese 3cr.
Continuation of the development of all four language skills: speaking, understanding, reading, and writing. The course includes the study of approximately 100 Japanese characters, and the presentation and discussion of Japanese culture.

JAPN 2002 Intermediate Japanese 3cr.
Continuation of the development of all language skills: speaking, understanding, reading, and writing. The course includes the study of additional Japanese characters and the presentation and discussion of aspects of Japanese culture.

Journalism

JOUR 2791 Independent Study 1cr.
(FTCA 2791 and JOUR 2791 are cross-listed) Admission by consent of department. Reading, conferences, and preparation of articles, reports, and special projects concerning print journalism under direction of a member of the journalism faculty.

JOUR 2792 Independent Study 1cr.
(FTCA 2791 and JOUR 2791 are cross-listed) Admission by consent of department. Reading, conferences, and preparation of articles, reports, and special projects concerning print journalism under direction of a member of the journalism faculty.

JOUR 2793 Independent Study 1cr.
(FTCA 2791 and JOUR 2791 are cross-listed) Admission by consent of department. Reading, conferences, and preparation of articles, reports, and special projects concerning print journalism under direction of a member of the journalism faculty.

JOUR 3760 Educational Journalism 3cr.
(FTCA 3760 and JOUR 3760 are cross-listed) The editorial, business, and mechanical techniques of producing school publications. Designed for school publications advisers.

JOUR 4700 Advanced Journalism 3cr.
Prerequisites: JOUR 2700 or consent of department. Writing-intensive study in advanced news reporting, news writing, and news editing.

JOUR 4710 Feature Writing 3cr.
Reporting and writing of non-fiction feature stories in magazines, newspapers, and websites.

JOUR 4791 Special Topics in Journalism 3cr.
Writing-intensive study of key topics of journalism. Topic will vary from semester to semester. May be repeated once for credit.

JOUR 4792 Independent Study 3cr.
Prerequisite: at least junior standing and consent of department. Readings, conferences, reports, or a major research project under the direction of a faculty member. May be repeated once for credit.

JOUR 6700 Special Studies in Print Journalism 3cr.
JOUR 6700 will cover one specialized journalism genre per semester. Possible topics include arts journalism, investigative journalism, feature writing, and environmental and science journalism. Students will study the work of leading journalists, past and present, and use that work to guide their own development as journalists. They will also address, via literature and in-class debate, the philosophical and ethical dimensions of journalism. In addition, they will: write pitch letters outlining their story ideas and potential sources; interview experts, eyewitnesses and other human sources; find supporting studies and statistics; write rough drafts and lead in-class discussions of them, and write final drafts.

Latin

Placement of students with high school preparation in Latin: students with sufficient preparation in Latin may enter the second, third, or fourth semester course in that language, thus completing the foreign language requirement in fewer semesters. Students interested in taking placement tests should contact the Foreign Language departments. Language courses in the 1001, 1002, 2001, 2002 sequence must be taken in that order.

LAT 1011 Introductory Latin Reading I 3cr.
Offered each semester. A course for beginners with emphasis on the fundamentals of grammar and translation of stories.

LAT 1012 Introductory Latin Reading II 3cr.
Offered each semester. Prerequisite: LAT 1011 or equivalent. A continuation of LAT1011

LAT 2011 Intermediate Latin - Reading I 3cr.
A review of the basic grammatical structure of the language with continuing and increasing emphasis on the development of advanced reading and translation skills.

LAT 2012 Intermediate Latin - Reading II 3cr.
Readings from the Aeneid of Vergil.

LAT 2102 Selected Orations of Cicero 3cr.
Departmental consent. The selections are read and interpreted with due attention to prose style

LAT 2106 Ovid and the Lyric Poets 3cr.
Readings from the Metamorphoses; readings from Catullus: Carmina, Horace: Odes and Epodes, and other selected lyrics.

Library Instruction

LIIN 1001 Information in Today's Society 1cr.
This course will provide a basic introduction to efficient and effective use of libraries and their resources specifically those of the Earl K. Long Library. Lectures will deal with fundamentals of research and bibliography preparation in the humanities the sciences and the social sciences covering the basic abstracting and indexing services reference tools and catalogs. Emphasis will be given to modern methods of information retrieval using on-line interactive computer capability.

Library Science

EDLS 3100 Children's Literature 3cr.
(ENGL 3240 and EDLS 3100 are cross-listed) Selection evaluation and use of books and materials for children; the role of literature in curriculum supplementation; and an examination of the changing social and cultural patterns in children's reading. This course can be used to satisfy general degree requirements in literature for upper elementary education students only.

EDLS 4200 Adolescent Literature 3cr.
(ENGL 4240 and EDLS 4200 are cross listed A survey of books and materials appropriate for use with the adolescent reader. Emphasis will be placed on selection and discussion of books for today's teenagers.This course can be used to satisfy general degree requirements in literature for upper elementary education students only.

EDLS 4200G Adolescent Literature 3cr.
(ENGL 4240 and EDLS 4200 are cross listed A survey of books and materials appropriate for use with the adolescent reader. Emphasis will be placed on selection and discussion of books for today's teenagers.This course can be used to satisfy general degree requirements in literature for upper elementary education students only.

EDLS 4990 Special Topics in Library Science 3cr.
Prerequisite: consent of department. Topic will vary from semester to semester. This course may be repeated once for credit.

EDLS 4990G Special Topics in Library Science 3cr.
Prerequisite: consent of department. Topic will vary from semester to semester. This course may be repeated once for credit.

EDLS 6420 Cataloging and Classification 3cr.

EDLS 6510 Introduction to Reference 3cr.

EDLS 6545 Literature for the Gifted and Talented 3cr.
(EDLS 6545 and EDSP 6545 are cross-listed) An exploration of research relating to reading behavior of gifted youngsters, examination of criteria for assessing books useful in promoting cognitive growth of high-ability children, and selection and utilization of literature with this population.

EDLS 6650 Teaching Information Literacy 3cr.
(EDLS 6650 and EDCI 6720 are cross-listed) Prerequisite: EDFR 1000, CSCI 1000, or equivalent course; or permission of the department. Investigation of teaching strategies and instructional materials to implement the Louisiana Content Standards for information literacy in elementary and secondary schools, including the principles of critical thinking and problem-based learning. Designed to provide teachers of language arts, social studies, and sciences, and library media specialists with an understanding of the role and uses of information in the contemporary world.

EDLS 6710 Nonfiction Across the Curriculum 3cr.
(EDCI 6710 and EDLS 6710 are cross-listed) A critical examination of nonfiction books used in schools. Focus is on standards for evaluation and curricular uses for informational and biographical works.

EDLS 6800 School Library Administration 3cr.
Prerequisite: EDFR 1000, CSCI 1000, or equivalent course; or permission of the department. Principles of administering the school library media center, including planning, budgeting and evaluation; establishing policies and procedures; selection and acquisition of collections, supplies, equipment, and computer systems and services; providing programs and activities; communicating with constituencies; the ethics and ethos of the profession.

EDLS 6990 Independent Study in Library Science 1cr.
Prerequisites: advanced graduate standing and consent of department and major professor. Investigation of pertinent problems under the direction of a graduate faculty member. This course may be repeated but total credit may not exceed six semester hours. Section number will correspond with credit to be earned.

EDLS 6995 Practicum in Library Science 3cr.
Prerequisite: completion of all other courses the certification program requires, and consent of the department. The practicum is designed to provide the student with an opportunity to acquire and apply competencies essential for effective librarianship in a school's instructional program. The student will be assigned to a school library media center for a total of 120 hours during one semester, where the student will participate in on-the-job experiences in provision and administration of all library services and programs, and in professional activities. This course may not be scheduled concurrently with student teaching.

Management

MANG 1001 Introduction to Information Systems and Technology 3cr.
Introduction to three foundational disciplines of the information technology age: electrical and computer engineering, computer science, and management information systems (MIS). Students will be provided with an overview of the three disciplines and how they interact to form a new discipline-information systems and technology. This course will be cross-listed with ENEE 1001 and CSCI 1001. Students taking MANG 1001 cannot receive credit for ENEE 1001 and CSCI 1001. Also, this course may not be used to satisfy UNO's general degree requirement for computer literacy and may not be taken for credit in the Electrical Engineering program. Prerequisite: None

MANG 2790 Business Communication 3cr.
Prerequisite: ENGL 1158 and BA 2780. This course will introduce students to the interaction of business communications and information technology in the 21st century workplace. Students will learn how to use computer networks to facilitate the following tasks: compose and submit routine business messages; interact with peers on problem-solving teams; research, draft, format, and submit hypermedia reports; create and deliver business presentations; seek and maximize job-search resources.

MANG 3070 Managing the Family Business 3cr.
This course provides concepts and constructive techniques that will enable students to understand the dynamics and underlying components of the family business system. The course will allow the student to examine the complementary nature of family and business components in the successfully functioning family business. A major focus of the course is to allow the students to understand and analyze the sources for conflict associated with family busi-

nesses and to develop resources and intervention techniques to facilitate successful resolution of the conflict.

MANG 3071 Franchise Management 3cr.
For those interested in starting and managing a business, as either a franchisee or franchisor. Attention on characteristics of the franchisor-franchisee relationship, the evaluation of franchising opportunities, financing, legal issues, and strategic planning. Integration of theory and practice through readings, lectures, discussions, video tapes, presentations from guest speakers and case studies.

MANG 3090 Internship in Management 3cr.
Prerequisite: Management 3401 and 3402 or consent of department. of department. This course will permit undergraduates to be engaged at least ten hours per week at the site of an assigned participating organization that directs the interns in specific projects relating to their majors. Students wishing to take this course should apply a semester in advance since enrollment is limited by internships available. This course may be repeated once for credit.

MANG 3099 Senior Honors Thesis 3cr.
Offered each semester. Prerequisite: consent of department and Honors Program Director. Extended and original research paper upon a topic of current concern in management under direction of a faculty member. Section number will correspond with credit to be earned.

MANG 3401 Introduction to Management and Organizational Behavior 3cr.
Offered each semester. Prerequisites: ACCT 2100 and ECON 1203 or 1200. An examination of management practices, behavioral implications and organizational systems from the perspective of classical and contemporary theory.

MANG 3402 Operations and Systems Management 3cr.
Offered each semester. Prerequisites: Management 3401 and Mathematics 2314. A study of systems concepts and their application in the design and operation of profit and non-profit organizations that are engaged in the production of goods or services in the domestic and global environments.

MANG 3467 Human Resource Management 3cr.
A study of the problems of personnel relations as applied to the employment, development, maintenance, and utilization of a labor force.

MANG 3472 Business Communication Oral 3cr.
Offered each semester. An extensive study of oral business communication techniques, including use of visual aids. Students make oral presentations individually and in groups relating to a variety of business problems (e.g., analysis of quarterly, annual, and other financial reports; results of feasibility studies or of surveys; conducting directive and non-directive interviews; dictating skills etc.).

MANG 3474 Computer-Based Multimedia Application for Business 3cr.
Prerequisites: MANG 2790. This course builds on the written and oral communication skills that UNO business students develop in MANG 3471 Business Communication. Focus is on the development skills necessary to design and prepare various types of presentations using a multimedia approach. Students learn how to develop storyboards, choose, and prepare various media for state-of-the-art presentations.

MANG 3475 Communications 3cr.
Prerequisite: MANG 3401 or consent of department. The course introduces the student to the communication knowledge and skills necessary to function as a manager in a contemporary organization. Topical coverage includes the role of verbal and nonverbal language, perception, listening, and media choice. The role of communication is emphasized in a variety of managerial activities such as problem solving, interviewing, managing conflict and introducing change. Communication is examined at the intrapersonal, interpersonal, organizational, and system levels.

MANG 3476 Management Science I 3cr.
Prerequisite: MANG 3402. An introduction to the concepts, tools, and applications of management science in organizations. Emphasis will be on cases, application studies, and computer analysis of problems in the following areas: decision theory, managerial forecasting, inventory analysis, linear programming, transportation models, assignment models, integer and goal programming, queuing analysis, simulation, and network models.

MANG 3491 Undergraduate Directed Individual Study in Management 3cr.
Prerequisite: Approval of the directed individual study by the department chair and the supervising professor is required prior to registration. Offered each semester. The student should refer to the College of Business Administration Policy on Undergraduate Directed Individual Study available in the Management Department. This course is arranged individually in order to provide latitude for specialized study and research under the direction of a faculty member. Progress reports, conferences, and a research paper are required. May be repeated for up to six hours credit.

MANG 3595 Academic Year Abroad: Special Topics in Management 3cr.
This course is only offered through UNO's Academic Year Abroad (AYA) in Innsbruck, Austria and can be repeated once for credit.

MANG 3778 Management Information Systems 3cr.
Prerequisites: MANG 3401 and BA 2780. The nature of information systems and how computers assist management in decision making. Includes examples in creating and implementing management information systems and an analysis of computer hardware and software.

MANG 3788 Business Application Development 3cr.
Prerequisites: BA 2780 or the consent of the department. A course to develop business applications using an object-oriented programming environment. Introduces students to develop business applications quickly. Topics include Rapid Application Development (RAD), code re-use, and team development of information systems projects.

MANG 4021 Legal Issues in Human Resource Management 3cr.
A study and analysis of current legal issues and trends affecting the management of human resources. Topics include the Americans With Disabilities Act, sex discrimination/sexual harassment, privacy in the workplace, and issues related to diversity in the workplace. These and other issues are addressed within the legal environment of Louisiana state law and federal law. Students focus on analysis of court cases and practical application of legal principles to human resource problems faced by managers. Emphasis is placed on how to manage problems to reduce potential liability and achieve desired results.

MANG 4057 Managing the Growing Business 3cr.
Prerequisite: MANG 3401 FIN 3301 and senior standing or consent of the department. This course provides concepts and techniques that enable students to anticipate and deal with the problems of growth in an entrepreneurial company. The course is intended for those interested in growing their own companies and which face the need to be managed more professionally while still keeping intact the entrepreneurial spirit that brought them to their present position. Special attention is given to managing the very rapidly growing company, financing, and using strategic alliances as a growth

strategy. Cases, guest lectures by entrepreneurs, videotapes, readings, and projects are used to present material.

MANG 4058 Harvesting the Entrepreneurial Firm 3cr.
Prerequisite: MANG 3401 FIN 3301 and senior standing or consent of the department. Concepts and analytical techniques for dealing with the opportunities and issues in harvesting the entrepreneurial company. The importance of building a sound company and thereby creating harvest options for the owner, such as merger, acquisition, going public, forming alliances, and selling out. Other topics include: turning around the troubled company, intrapreneurship, and choosing a successor. Cases, videotapes, readings, guest lectures by entrepreneurs, and projects are used to present material.

MANG 4400 Survey of Management Topics 3cr.
A survey of basic management topics in organization behavior, management information systems, and operations management. Provides an introduction to fundamental management concepts for pre-MBA students who have not had prior coursework in these areas. Not open to undergraduate College of Business majors. May not be taken for graduate credit.

MANG 4401 Selected Topics in Business Communication 3cr.
A course designed for MBA students to improve their writing, speaking, and computer skills. Emphasis will be placed on the composition, preparation, and presentation of written reports and oral presentations. Computers will be used to research, design, and output both written reports and oral presentations. This course is not open to undergraduate students in the College of Business Administration and may not be taken for graduate credit.

MANG 4402 Research Methodology in Management 3cr.
Prerequisite: MANG 3402. Background and understanding of research methodology and management. Interpretation of research, experimental and quasi-experimental design, problems of generalizability, hypothesis testing, control, and techniques for collecting and analyzing data.

MANG 4405 Decision Making 3cr.
Prerequisite: MANG 3402. A student may not receive credit for both MANG 4405 and MANG 6405. Comprehensive survey, with historical over-view, of the decision-making process both the perspective of management theory. Emphasis on models of the decision-making process and how they contribute to contemporary understanding of the process. Includes discussion of theory development and testing.

MANG 4407 Management of Technology and Innovation 3cr.
Prerequisites: senior standing. May not receive graduate credit for both MANG 4710 and MANG 6710. Basic concepts involved with the management of technology in an organizational setting. Discussion of types of technologies, tactical and strategic impact of new organizational design considerations influenced by technology, fostering creativity and innovation in an organization, and technology/employee interface considerations. Text, readings, short case studies, videos, and guest speakers who are managers in technological environments are used as presentational media. Term project required.

MANG 4420 Organizational Theory 3cr.
Prerequisite: Management 3401 or consent of department. May not receive graduate credit for both MANG 4420 and MANG 6420. Designed to present general theory and analysis of organization design and structure. Includes a survey of both classical and contingency theories of organization, structure and process approaches to organizational design, and major dimensions of organizational design. Includes discussion of principles of organizational analysis with case studies.

MANG 4422 Organizational Politics 3cr.
Prerequisite: MANG 3401. Advanced elective to enhance students' understanding of organizational politics and dynamics. Topics to include: career management, assertiveness, power and the political process, and stress in organizations.

MANG 4424 Leadership in Organizations 3cr.
Prerequisite: Management 3401 or consent of department. An in-depth examination of leadership in organizations. Emphasis is upon theory and use of experiential exercises to demonstrate application of theory to the organizational setting.

MANG 4426 Change Management 3cr.
(Same as ENMG 4130, Change Management). Prerequisite: MANG 3401 or MANG 4400. This course is designed to provide techniques and principles concerning how to introduce change into organizations. Emphasis will be on the three phases of change; initiating change, implementing change, and institutionalizing change. Means of applying change principles will be developed through the use of templates and worksheets.

MANG 4446 International Management 3cr.
Prerequisite: MANG 3401. May not receive credit for both MANG 4446 and MANG 6446. Primary attention of this course will be focused on the comparative study of the practice of management in selected countries under different environmental conditions. The economic, legal, political, social, and cultural differences and the effects of these differences upon business objectives, plans, organization, and operation will be examined.

MANG 4451 Business Information Systems Analysis and Design 3cr.
Prerequisite: MANG 3778. A student may not receive graduate credit for both MANG 4730 and MANG 6730. Deals with theories and techniques for analysis of information requirements and design, development, and implementation of computer-based information systems. Examples are life cycle, prototyping, end-user computing.

MANG 4452 Management of Business Databases 3cr.
Prerequisite: MANG 3778 and 3788. A student may not receive graduate credit for both MANG 4452 and 6452. Deals with concepts and techniques for data base management. Includes data base processing, models, structures, security, logical and physical design, and applications in practical problems.

MANG 4453 Management of Business Telecommunications 3cr.
Prerequisite: MANG 3778. A student may not receive graduate credit for both MANG 4453 and 6453. Planning and decision tools for managing business telecommunications, technical knowledge to make sound business decisions, and the understanding of the impact of telecommunications technology or business trends and opportunities. The fundamentals of networks and network management are discussed in this course.

MANG 4454 Managing Electronic Commerce 3cr.
Prerequisite: MANG 3778 and 3788. Electronic commerce environment and business opportunities are described. Approaches to building a business on the Internet are discussed, and technologies facilitating Internet business operations are described. Internet business models including those for virtual organizations, electronic payment schemes, security, and promotion are discussed.

MANG 4455 Decision Support Systems 3cr.
Prerequisite: MANG 3778 and 3788. Presents the principles, implementation, and uses of decision support and expert systems. Includes data-based, model-based, and rule-based decision support systems, with case studies to illustrate the application of technologies.

MANG 4456 Software Project Management 3cr.
Prerequisite: MANG 4730 or consent of the instructor. Students may not receive graduate credit for both MANG 4735 and 6735. Deals with roles and impacts of information systems in an organization, and the proper planning, scope, documentation, change control, quality, and risk management for I/S development projects. The course addresses the SEI CMM, software development lifecycle models, configuration management, quality assurance, metrics, size/cost/schedule estimating, and continuous improvement.

MANG 4468 HRM Strategy and Compensation Systems 3cr.
Students may not receive credit for both MANG 4468 and 6468. The basic components of human resource management strategies, the compensation process and employee benefits programs.

MANG 4469 Staffing and Developing Human Resources 3cr.
A student may not receive credit for both MANG 4469 and 6469. The design and implementation of programs necessary to attract and develop a competent workforce. Focus on the theories and techniques of human resource planning, staffing, development, career advancement, and voluntary and involuntary termination. Emphasis on practical applications prepares students to perform or manage the relevant tasks associated with staffing and development in a modern human resources function.

MANG 4470 Employment Law for Managers 3cr.
A student may not receive credit for both MANG 4470 and 6470. The legal implications of federal legislation and regulation of human resources administration in organizations. Special emphasis on the impact of the legal environment on recruiting, testing, selection, transfer, promotion, discipline, and the termination of employees.

MANG 4471 Quality Management 3cr.
(MANG 4471 and ENMG 4471 are cross-listed) Prerequisite: MANG 3402 or consent of department. May not receive graduate credit for both MANG/ENMG 4471 and MANG 6471. Describes the basic concepts of quality planning and quality control. Discussion on quality improvement plans, Deming philosophy, and Juran's quality trilogy, the Deming prize and Baldrige award for quality excellence, and quality circles. Study of the statistical approach to quality control and the use of control charts and other quality control tools. Case studies from around the world on the implementation of total quality management.

MANG 4473 Environmental Management 3cr.
Prerequisite: senior standing or consent of department. Examination of the impact of environmental issues on organizational structure and operations from a management perspective with a focus on how environmental concerns create threats opportunities and affect organizational strategic management. Discussion of current environmental issues involving research and development, legislation, regulatory policies, and technological advances in environmental management and examination of the new "corporate culture" that integrates environmental considerations into organizational design. A special emphasis will be placed on public perceptions of environmental issues and how they affect business strategy.

MANG 4477 Purchasing Materials Management 3cr.
Prerequisites: MANG 3402 or consent of department. This course examines the role of purchasing in domestic and international business environments. The course introduces purchasing and material procurement tools and techniques necessary for meeting supply-demand market impact. Legal aspects of purchasing activity will also be addressed. The course encourages students' active participation in team projects and case studies.

MANG 4478 Operations Planning and Control 3cr.
Prerequisite: MANG 3402 or consent of instructor. An analytical study of modern concepts and techniques which have been developed to plan and control operations. The objective of the course is to bring the range of concepts and techniques to a point of useful application. The practical design of production planning and inventory control systems is the focus of study.

MANG 4480 Business Policies and Problems 3cr.
Offered each semester. Prerequisites: MANG 3402, MKT 3501, FIN 3300, and senior standing. Specific problems involved in the formulation of consistent business policies and maintenance of an efficient organization. This course is not open to graduate students.

MANG 4487 Organizational Behavior: An Ethical Approach to Behavioral Issues 3cr.
Prerequisite: MANG 3401 or consent of instructor. May not be taken for credit in the MBA program. Not for graduate credit. A study of the problems of obtaining purposeful action through formal and informal business organizations. The development of skills in administrative relations with people focusing on ethical behavior in motivation, leadership, and communication.

MANG 4497 Current Topics in Management 1-4cr.
Prerequisite: MANG 3401 or consent of department. Designed as a seminar to expose the student to current research and theory in a variety of management topics. May be repeated once for credit

MANG 4697 Washington Center Special Topics 3cr.
The Washington, D.C. Internship Program is offered in cooperation with the Washington Center for Internships and Academic Seminars. Students of junior-level or higher standing and a grade-point average of 2.5 or better are eligible to participate in the Program. The program is conducted in Washington, D.C. and consists of an internship of four-and-a-half workdays per week, a three-hour course one night a week, and a major research paper. Participants can earn 12 credit hours during a fall or spring semester (nine hours in summer).

MANG 4698 Washington Center Independent Study 3cr.
The Washington, D.C. Internship Program is offered in cooperation with the Washington Center for Internships and Academic Seminars. Students of junior-level or higher standing and a grade-point average of 2.5 or better are eligible to participate in the Program. The program is conducted in Washington, D.C. and consists of an internship of four-and-a-half workdays per week, a three-hour course one night a week, and a major research paper. Participants can earn 12 credit hours during a fall or spring semester (nine hours in summer).

MANG 4705 Legal and Ethical Issues of Technology Management 3cr.
This course is designed to alert students to the basic legal and ethical issues surrounding the management of technology and to promote the understanding of and solutions to the most problematic and fundamental legal and ethical questions that arise in the management of technology. Topics include legal review of basic intellectual property law and tort liability arising from illegal use of technology and information, as well as ethical review of privacy rights and property rights.

MANG 4710 Management of Technology and Innovation 3cr.
Prerequisites: senior standing. May not receive graduate credit for both MANG 4710 and MANG 6710. Basic concepts involved with the management of technology in an organizational setting. Discussion of types of technologies, tactical and strategic impact of new organizational design considerations influenced by technology, fostering creativity and innovation in an organization, and technol-

ogy/employee interface considerations. Text, readings, short case studies, videos, and guest speakers who are managers in technological environments are used as presentational media. Term project required.

MANG 4730 Business Information Systems Analysis and Design 3cr.
Prerequisite: MANG 3778. A student may not receive graduate credit for both MANG 4730 and MANG 6730. Deals with theories and techniques for analysis of information requirements and design, development, and implementation of computer-based information systems. Examples are life cycle, prototyping, end-user computing.

MANG 4735 Software Project Management 3cr.
Prerequisite: MANG 4730 or consent of the instructor. Students may not receive graduate credit for both MANG 4735 and 6735. Deals with roles and impacts of information systems in an organization, and the proper planning, scope, documentation, change control, quality, and risk management for I/S development projects. The course addresses the SEI CMM, software development lifecycle models, configuration management, quality assurance, metrics, size/cost/schedule estimating, and continuous improvement.

MANG 4760 Managing Electronic Commerce 3cr.
Prerequisite: MANG 3778 and 3788. Electronic commerce environment and business opportunities are described. Approaches to building a business on the Internet are discussed, and technologies facilitating Internet business operations are described. Internet business models including those for virtual organizations, electronic payment schemes, security, and promotion are discussed.

MANG 4770 Business Process Modeling 3cr.
Management careers in almost any discipline involve managing and/or participating in business processes. This course will teach students how to document, analyze, monitor, and improve business processes. The course will include class discussions and presentations, fieldwork, prominent guest lectures and a significant amount of hands-on work. Students may not receive credit for both MANG 4770 and MANG 6770.

MANG 4772 Enterprise Systems for Business 3cr.
Prerequisite: MANG 3488 An introduction to enterprise systems. Topics include enterprise systems requirements, application architecture, API tools, life cycle and methodologies for systems integration, and implementation strategies. The course will use the PeopleSoft Application Developer to illustrate the technology used to extend the functionality of an enterprise system. Students will work on projects using the PeopleTools API.

MANG 4774 Human Resource Information Systems: Queries and Reports 3cr.
Prerequisite: MANG 4750 Fundamentals of Enterprise Systems Queries focusing on Human Resource Information Systems. Relationship between enterprise system tables. Constructing queries and generating reports. The course will use projects based on the PeopleSoft HRMS database to discuss querying and reporting from enterprise systems. Use of PeopleSoft SQR.

MANG 6021 Legal Issues in Human Resource Management 3cr.
Topics include the Americans with Disability Act, sex discrimination/sexual harassment, privacy in the workplace, issues related to diversity in the workplace, and intellectual property issues. Louisiana state laws and federal laws are discussed.

MANG 6401 Seminar in Organizational Behavior 3cr.
(MANG 6401 and ENMG 6401 are cross-listed) Prerequisite: MANG 3401 or ENMG 6101 or consent of department. A study of organizational behavior across all levels of organizational life: the individual, interpersonal, group, organizational, and society. Problems to be discussed and dealt with include motivation, communications, leadership, group dynamics, power, organizational structures and design, and various types of environmental constraints including competition, markets, and governmental regulations. Lecture, discussion, and group problem-solving project reports are included in instructional methodology.

MANG 6420 Organization Theory and Design 3cr.
Prerequisite: MANG 4400 or equivalent or consent of department. A student may not receive credit for both MANG 4420 and MANG 6420. Readings, lecture-discussion, and cases are used to explore and evaluate options in designing organizations to maximize organizational effectiveness. Design variables such as formal structure, communication networks, information systems, control and reward systems, and decision-making modes are related to effectiveness criteria in the context of internal and external constraints.

MANG 6425 Small Group Management 2cr.
Prerequisite: Admission to the EMBA Program. This course consists of three primary segments. In the first segment, students will be involved in a series of self-assessment exercises designed to highlight individual differences. In the second segment, students will work in group settings to develop their ability to work effectively in groups and to highlight the strengths of group work. In the final segment, students will be assigned/selected into a work group which will continue through the EMBA program.

MANG 6446 International Management 3cr.
Prerequisites: MANG 3401 or MANG 4400. May not receive graduate credit for both Management 4446 and MANG 6446. Deals with complex managerial problems of the multinational enterprise. The principal areas of study will be: 1) nature and scope of international business; 2) international business and the nation-state; 3) assessing and forecasting the international business environment; and 4) managing the multinational enterprise.

MANG 6467 Managing Human Resources 3cr.
A study of the theories and techniques of modern human resource management with respect to attracting, motivating, and retaining a competent workforce. Emphasis of this course is on the management of a human resource function. A student may not receive credit for both BA 6011 and MANG 6467.

MANG 6468 Managing HR Strategy and Compensation Systems 3cr.
A student may not receive credit for both MANG 4468 and 6468. A study of the management of compensation and benefit programs in medium to large organizations.

MANG 6469 Managing Staffing and Development in HRM 3cr.
A student may not receive credit for both MANG 4469 and MANG 6469. A study of the management of programs designed to acquire and develop a competent workforce.

MANG 6470 Employment Law for Managers 3cr.
Students may not receive credit for both MANG 4470 and 6470. This course is a study and analysis of the management of the legal environment related to employing, training, appraising, promoting, and terminating people in organizations.

MANG 6471 Total Quality Management 3cr.
Prerequisites: QMBE 6780 or BA 6780 or both ENMG 6101 and 6112 or consent of the department. May not receive graduate credit for both MANG 4471 and 6471. The essential concepts, practices, and methods of total quality management. Guidelines for managers to provide competent and visible leadership to insure effective quality assurance. The use of statistical quality in service and manufacturing organizations. Cases on the management of TQM programs.

MANG 6472 Engineering Project Management 3cr.
(ENCE 6390, ENMG 6120, and MANG 6472 are cross-listed) Prerequisite: consent of department. Encompasses project organization structure, project planning and control. Discussions will include performance analysis based on earned value. Emphasis will be given to project management information systems. Human behavior in the project setting will be discussed.

MANG 6474 Decision Theory 3cr.
Prerequisite: Consent of Department. Examine the decision making process for managerial decisions. Use of statistical analysis and risk management principles in the decision making process. Emphasis will be upon probabilistic thinking and applying concepts of statistics and decision-making models to uncertain decision-making situation. Cross-listed with ENMG 6112

MANG 6476 Operations Management 3cr.
Prerequisites: QMBE 6780 or ENMG 6112 or consent of department. A study of techniques used in the analysis, design, and control of organizational operations. Emphasis on total quality management of manufacturing and service sector operations. Forecasting, inventory control, layout and location, queuing, automation and JIT are discussed as well as cases and computer programs for operations management.

MANG 6480 Seminar in Business Policies 3cr.
(Open to master's candidates in their final semester only.) A study of business policies integrating the functions of all fields of business administration. The course is designed to give the student the top management viewpoint of the operation of the business enterprise. Strategy development and implementation are emphasized

MANG 6491 Independent Study in Management 3cr.
Prerequisites: consent of department. Readings, weekly or biweekly reports, conferences, and a research paper under the direction of a graduate faculty member is required.

MANG 6494 Internship in Management 3cr.
Prerequisite: 15 hours of MBA courses with at least a 3.0 GPA and consent of the department. The student will work a minimum of 150 hours during the semester at the site of a participating organization that directs the intern in a specific Management project. Students must in addition engage in extensive outside research in the subject area related to their internship and submit a substantial report on this research reflecting a graduate level of learning. Enrollment is limited. May not be repeated for credit.

MANG 6497 Special Topics in Management 1-4cr.
An intensive study of selected special topics in Management. Topics will vary based on contemporary needs as dictated by the discipline as well as the interests of the students and the instructors. Section number will correspond with credit to be earned.

MANG 6700 Strategic Management Information Systems 3cr.
Prerequisites: MANG 3778 or MANG 4400 or both ENMG 6101 and ENMG 6112 or consent from department. Information technology (IT) is more than just computers. It must be conceived of broadly to encompass information as well as a spectrum of technologies that process the information. IT helps to reduce risks and create opportunities. With this understanding, a contingency framework is introduced for allocating IT resources within the firm. A focus is given on whether a firm's IT assets are correctly aligned with its strategy, and whether the firm's organization structure, management reporting relationships, risk of project portfolio, and project management efforts are congruent with the organization's goals. These evaluations are made across a variety of stable and emerging technology solutions, including outsourcing, knowledge management, expert systems, e-business, and supply-chain management systems.

MANG 6705 Legal and Ethical Issues of Technology Management 3cr.
This course is designed to alert students to the basic legal and ethical issues surrounding the management of technology and to promote the understanding of and solutions to the most problematic and fundamental legal and ethical questions that arise in the management of technology. Topics include legal review of basic intellectual property law and tort liability arising from illegal use of technology and information, as well as ethical review of privacy rights and property rights.

MANG 6710 Management of Technology and Innovation 3cr.
May not receive credit for both MANG 6710 and MANG 4710. Concepts involved with the management of technology in an organizational setting. Discussion on the issues of types of technologies, tactical and strategic impact of new technologies, justification and assessment of new technologies, organizational design considerations influenced by technology, fostering creativity and innovation in an organization, and technology-employee interface considerations. Text, readings, case studies, and videos are used as presentational media. Term project required.

MANG 6720 Emerging Technologies 3cr.
A course designed to introduce Emerging Information Technologies and the role they play in business. An examination of how technology has changed the way we work. Course will consist of current readings on the topic and technology demonstrations. Students will seek out new technologies and understand the uses and purposes of these technologies. Course can be taken only once for credit and can be used towards the MIS minors, MIS concentrations, or other MS programs by departmental consent.

MANG 6730 Business Information System Analysis and Design 3cr.
Prerequisite: MANG 6700. Students may not receive credit for both Management 4730 and Management 6730. Theories and techniques for analysis of business information requirements and design, development, and implementation of information systems. Case studies will be discussed in class and students will be required to work on a project dealing with the analysis and design of a business information system.

MANG 6735 Software Project Management 3cr.
Prerequisite: MANG 6730 or consent of the instructor. Students may not receive graduate credit for both MANG 4735 and 6735. Deals with roles and impacts of information systems in an organization, and the proper planning, scope, documentation, change control, quality, and risk management for I/S development projects. The course addresses the SEI CMM, software development lifecycle models, configuration management, quality assurance, metrics, size/cost/schedule estimating, and continuous improvement.

MANG 6740 Network Security Management 3cr.
Prerequisite: MANG 6700. A student may not receive graduate credit for both Management 4740 and 6740. Introduces network and security management topics. The business value of network resources is discussed, the threats to these resources are identified, and approaches to solving network security problems are studied. Hands-on experience is provided through student projects and lab sessions. Business cases in network management and discussed in class with emphasis on security issues.

MANG 6750 Knowledge Management 3cr.
Prerequisite: Management 6700. Students can only get credit for one of the following: Management 4750, Management 4455, or Management 6750. This course is a thorough introduction to the subject of knowledge management (KM) from a business management viewpoint. It includes the theoretical framework for knowl-

edge and the methods and technologies that support the creation and management of knowledge in large and small organizations. This course covers knowledge theory, databases and data warehousing, knowledge management systems, data mining, and expert systems. Students will also complete a group project, which is a proposal for a knowledge management solution.

MANG 6760 Management of Electronic Commerce 3cr.
Prerequisite: MANG 6700. Background and understanding e-business and e-commerce technologies and models. Business solutions for managing customer relation, on-line communities, supply chain management, trust, and knowledge management. The course uses case studies, hands-on-research and project work, to provide an understanding of e-business technologies and their integration into existing business, focusing on managing information resources in an e-business framework.

MANG 6770 Business Process Modeling 3cr.
Management careers in almost any discipline involve managing and/or participating in business processes. This course will teach students how to document, analyze, monitor, and improve business processes. The course will include class discussions and presentations, fieldwork, prominent guest lectures and a significant amount of hands-on work. Students may not receive credit for both MANG 4770 and MANG 6770.

Marketing

MKT 3501 Principles of Marketing 3cr.
Prerequisites: ECON 1203. Offered each semester. A course designed to introduce the role of marketing in society. Particular emphasis is placed on those market-related variables which are subject to control by the firm. The viewpoint taken is that of the marketing manager whose role it is to make decisions relating to marketing strategy.

MKT 3505 Consumer Behavior 3cr.
Offered each semester. Prerequisites: MKT 3501 and three hours of psychology. An interdisciplinary approach to the study of the decision-making process as it applies to the purchase of consumer goods. The viewpoint of both consumer and of the marketing manager are considered so that the student may apply the principles of the courses to personal as well as professional life. A wide variety of examples is used to establish the practical value of the subjects discussed. Graduate students will not receive credit for both Marketing 3505 and 6510.

MKT 3510 Introduction to Marketing Research 3cr.
Prerequisites: MKT 3501 BA 2780 and QMBE 2786. The scientific method is applied to the solution of marketing problems for the development of sound marketing strategies. Basic methodologies and applications are stressed. Analytical techniques and analysis beyond those in QMBE2786 are introduced.

MKT 3511 Applied Marketing Research 3cr.
Prerequisites: MKT 3510 and BA 2780 or approved substitutes. The student proposes, formulates, and executes a marketing research study, utilizing the techniques developed in MKT 3510. Discussion of exploratory research techniques, case studies, and advanced statistical analysis. Research costs will be incurred by the student.

MKT 3515 Personal Selling 3cr.
Prerequisite: MKT 3501. Training in the current theories and practice of selling to organizational buyers. Role playing, videotaped presentations, and other techniques are employed to enhance interpersonal communication skills. The course cannot be taken for credit in the M.B.A. Program.

MKT 3520 Direct Response Marketing 3cr.
Prerequisite: MKT 3501.The theory and practice of direct response marketing as an aspect of the total marketing system for both small and large businesses. Emphasis is given to direct mail, print and broadcast advertising, telephone promotion, and interactive media. Development of student's analytical techniques needed for successful application in profit and nonprofit organizations, both public and private.

MKT 3526 The Legal Environment of Marketing 3cr.
Prerequisites: BA 3010 and MKT 3501. A study of the federal antitrust laws and other federal and state laws regulating and affecting the sales, marketing, and distribution processes. Subject areas include price fixing laws, exclusive dealings and tie-in arrangements, patent laws, horizontal and vertical restraints of trade, illegal boycotts and discriminatory discounts, illegal advertising, product liability, and consumer protection laws.

MKT 3530 Sales Management 3cr.
Prerequisite:MKT 3501. The theory and practice of recruiting training motivating and compensating the professional sales force with emphasis on the role of the salesman in buyer-seller relationships.

MKT 3540 Promotion Management 3cr.
Prerequisite: MKT 3501. An overview of promotion management providing a framework for integrating the promotion functions of advertising, personal selling, sales promotion, and publicity.

MKT 3552 Retailing 3cr.
Prerequisite: MKT 3501. Store organization, operation, and management; and problems and practices of retailers in buying, selling, control, and promotion.

MKT 3553 Retailing Cases and Problems 3cr.
Prerequisites: MKT 3501 and MKT 3552. Advanced course in retailing management using case studies and special projects to examine selected retail organizations and for organizational situations. In a seminar format, principles of retail strategy and organization are applied to retail management decisions.

MKT 3570 Business-to-Business Marketing 3cr.
Prerequisite: MKT 3501. The course emphasizes the special nature of marketing to organizations as opposed to individual consumers. These organizations include commercial enterprises, institutions, and government units. Emphasis is placed on providing frameworks which can be used by business marketers to help develop more effective marketing strategies.

MKT 3580 Advertising 3cr.
Prerequisite: MKT 3501. Analysis of principal means of promotion. Includes preparation of an advertising campaign and appropriation determination. Brief treatment of personal selling and secondary promotional devices.

MKT 3585 Marketing Internship 3cr.
Prerequisite: MKT 3501 and consent of department. The student intern works for ten to twenty hours per week at the sight of a participating organization which directs the intern in a specific marketing project. Students desiring to take this course should apply early. Enrollment is limited by the internships available.

MKT 3590 Topic Seminar in Marketing 3cr.
Prerequisite: nine hours of marketing Senior standing or consent of department. Topics of current interest in marketing. Topic changes from semester to semester.

MKT 3591 Independent Study in Marketing 3cr.
Offered each semester. Prerequisite: MKT 3501 and approval of the directed individual study by the department chair and the supervising professor is required prior to registration. The students

should refer to the College of Business Administration Policy on Directed Individual Study available in the Marketing Department. This course is arranged individually in order to provide latitude for specialized study and research under the direction of a faculty member. Progress reports, readings, conferences, and a research paper are required. May be repeated once for credit.

MKT 3595 Academic Year Abroad: Special Topics in Marketing 3cr.
This course is only offered through UNO's Academic Year Abroad (AYA) in Innsbruck, Austria and can be repeated once for credit.

MKT 3599 Senior Honors Thesis 3cr.
Offered each semester. Prerequisites: MKT 3510 consent of department consent of director of the Honors Program and grade point averages of at least 3.5 in marketing and at least 3.25 overall. Senior honors thesis research in marketing under the direction of a faculty member. Students may earn up to a total of six credits.

MKT 4400 Marketing Foundations for Managers 3cr.
An approach to marketing management concepts and practice intended for managerial use. This course is intended to prepare students for graduate study in Business Administration. Emphasis will be placed on familiarizing pre-MBA students with the application of marketing management techniques in business decision-making as it concerns the development and strategic positioning of the firm and its offerings in a competitive environment. Not open to undergraduate students. This course may not be taken for graduate credit. Students may not receive credit for both MKT 3501 and MKT 4400.

MKT 4520 Technology and Marketing 3cr.
Prerequisite: Marketing 3501.This course covers both the impact of new information technologies on traditional marketing and marketing in industries undergoing high levels of technological change. Subject areas such as e-commerce, database marketing, business-to-business marketing, and customer contact management are examined and illustrated in industry settings that emphasize innovation through the development of new technologies. These industries, but are not limited to, communications, information processing, education, entertainment, and health care.

MKT 4536 Health Care Marketing 3cr.
Application of marketing principles and concepts to contemporary Health Care Industry issues. This course is specifically designed to introduce Health Care employees to marketing thought and processes and business students to the marketing issues relevant to contemporary management operations in a Health Care environment. Students in MBA program may not enroll in this course.

MKT 4546 International Marketing Management 3cr.
Prerequisites: MKT 3501. A study of the significant aspects of international business operations including the historical development of foreign trade policy and operative problems of international business operations, private and public organizations in foreign trade, and the legal dimensions of foreign trade. Graduate students will not receive credit for both MKT 4546 and 6546

MKT 4570 Distribution Channels 3cr.
Prerequisites: MKT 3501. Theory and practice of analysis and management of interfirm relationships within the marketing channel. Oriented toward strategic planning, the course examines the scope, environments, and dynamics of channel structure with a strategic planning orientation.

MKT 4575 Logistics 3cr.
Prerequisites: MANG 3402 and MKT 3501. A study of the flow of goods as it relates to the success of the firm. Topics include transportation and storage and their control, information flow, inventory, location theory, and scheduling.

MKT 4580 Marketing Management 3cr.
Prerequisite: 12 hours of marketing which must include MKT 3501, MKT 3505, and 3510. Focuses on the steps of marketing planning, which include planning, implementing, and controlling marketing programs. This includes product and brand development, channels of distribution, promotion, and pricing. The course cannot be taken for credit in the M.B.A. program.

MKT 4590 Marketing Strategy 3cr.
Prerequisites: 15 hours of marketing which must include MKT 3501, 3505, 3510, and 4580. Designed to provide the student with a cohesive understanding of managerial decision making in marketing. Emphasizes conceptualizing marketing problems, conducting situation analyses, formulating creative alternatives, and thorough strategy implementation. The course cannot be taken for credit in the M.B.A. Program.

MKT 6333 Real Estate Finance and Market Feasibility Analysis 3cr.
Prerequisite: one of the following: FIN 6300, URBN 6165, FIN 4366, or FIN 4368. A survey of the physical characteristics and the market, economic, and financial considerations which enter into the decision process for selecting business locations. Addresses the allocation of land resources among a number of possible revenue-producing uses and the impact of location considerations on the profitability of the firm. An extensive field research project is an integral part of the course.

MKT 6503 Strategic Marketing Management 3cr.
Prerequisite: MKT 3501 or MKT 4400 or ENMG 6101 or consent of the department. Students with an undergraduate marketing degree may replace MKT 6503 with an approved graduate marketing elective. Development of the ability to solve marketing problems using the case method. Emphasis is given to the use of data obtained from business firms.

MKT 6510 Advanced Analysis of Consumer Behavior 3cr.
Prerequisite: MKT 6503. Theoretical, conceptual, and methodological issues in consumer behavior. Emphasis will be on current publications, breakthroughs, and research.

MKT 6520 Technology and Marketing 3cr.
Prerequisite: MKT 6503. This course covers both the impact of new information technologies on traditional marketing and marketing in industries undergoing high levels of technological change. Subject areas such as e-commerce, database marketing, business-to-business marketing, and customer contact management are examined and illustrated in industry settings that emphasize innovation through the development of new technologies. These industries, but are not limited to, communications, information processing, education, entertainment, and health care.

MKT 6535 Advanced Services Marketing Management 3cr.
A strategy-oriented seminar dealing with problems of marketing-service businesses (e.g., hotels, restaurants, banks, medical offices, etc.). This course prepares students to properly mange the marketing effort for service businesses using case analyses, exercises, and projects which deal with critical aspects of service, design, and delivery. Students may not receive credit for both MKT 4535 and MKT 6535.

MKT 6536 Strategic Marketing Decisions for Health Care Management 0cr.
Prerequisite: MBA foundation. An advanced seminar in Strategic Marketing methods in a diverse health care context. Includes assessment of market opportunities, development and implementa-

tion of marketing programs, promotion, market research, and marketing information systems. Special emphasis on marketing in a managed care environment.

MKT 6546 Advanced Seminar in International Marketing 3cr.
Prerequisite: MKT 6503. An in-depth review of trends and developments in the global marketing environment. Topics covered include import-export, joint ventures as well as international marketing systems and multinational marketing strategies.

MKT 6555 Marketing Research Methods 3cr.
Prerequisite: QMBE 2786 and MKT 6503. Advanced marketing research methods including experimentation, questionnaire construction, and sampling, used to investigate marketing problems, and design of strategies. Other applications include market position assessment, image studies, product design, advertising effectiveness, and pricing. Elementary and multivariate data analysis methodology will be applied.

MKT 6575 Logistics 3cr.
Logistics is a value-added process that synchronizes demand and supply in an effort to provide competitive advantage. Emphasis is placed on the strategic importance of customer service/satisfaction within a supply chain management perspective. Specific topics include supply chain strategy, transportation, inventory analysis, warehousing, material handling, and international logistics.

MKT 6590 Current Topics in Marketing 3cr.
Prerequisite: MKT 6503. An intensive study of selected current topics in marketing. Topics will vary based on contemporary needs as dictated by the discipline as well as the interests of the students and the instructor.

MKT 6591 Independent Study in Marketing 3cr.
Prerequisite: consent of department. Readings, weekly reports, conferences, and a research paper.

MKT 6594 Internship in Marketing 3cr.
Prerequisite: 15 hours of MBA courses with at least a 3.0 GPA and consent of the department. The student will work a minimum of 150 hours during the semester at the site of a participating organization that directs the intern in a specific Marketing project. Students must in addition engage in extensive outside research in the subject area related to their internship and submit a substantial report on this research reflecting a graduate level of learning. Enrollment is limited. May not be repeated for credit.

MKT 6595 Special Topics in Marketing 1-4cr.
An intensive study of selected special topics in Marketing. Topics will vary based on contemporary needs as dictated by the discipline as well as the interests of the students and the instructor. Section number will correspond with credit to be earned.

Mathematics

Admission to all courses at the 1000-level will be based on performance on the ACT or departmental placement exams. Students with unsatisfactory scores on these exams will be required to pass Developmental Mathematics 107 before registering for any 1000-level course.

Students who show exceptional preparation may replace introductory courses with more advanced ones, with consent of the department based on the student's performance on a special examination. No student may receive more than nine semester hours credit in courses numbered below 2000.

MATH 1021 Problem Solving and Number Relations for Elementary Teachers 3cr.
Offered each semester. Prerequisites: DEVM 0107 or satisfactory performance on either the departmental placement exam or the ACT or SAT. A problem solving approach to the number systems of arithmetic emphasizing the use of logic and sets as the language of mathematics. This course may be used for degree credit only in the College of Education.

MATH 1023 Problem Solving and Geometry for Elementary Teachers 3cr.
Offered each semester: Prerequisite: MATH 1021. A problem solving and constructive approach to Euclidean Geometry and three dimensions. This course can be used for degree credit only in the College of Education.

MATH 1031 A Survey of Mathematical Thought 3cr.
Offered each semester. Prerequisite: Developmental Mathematics 0106 or satisfactory performance on either the departmental placement exam or the ACT or SAT. MATH 1031 is prerequisite to MATH 1032. Credit for both Mathematics 1031, and 2107 or 2111 will not be allowed. Non-technical survey of major branches of mathematics with examples of problems and methods in each.

MATH 1032 A Survey of Mathematical Thought 3cr.
Offered each semester. Prerequisite: Mathematics 1031. Credit for both Mathematics 1032, and 2107 or 2111 will not be allowed. Non-technical survey of major branches of mathematics with examples of problems and methods in each.

MATH 1115 Algebra 3cr.
Prerequisite: DEVM 0107 or satisfactory performance on the departmental placement exam, the ACT, or the SAT. Real numbers and equations, functions, polynomial functions and graphs, exponential and logarithmic functions. This course will not serve as a prerequisite to MATH 1126; it will be followed by MATH 1116, 1125, 1140, or 2314 according to major. A strong component of this course will be applications taken from different areas of concentration.

MATH 1116 Trigonometry 3cr.
Prerequisite: MATH 1115 with a grade of C or better. Introduction to trigonometric functions, graphs of trigonometric functions, trigonometric identities, applications of trigonometry, linear and nonlinear systems, binomial theorem. Designed for students who are not required to take calculus. This course will not serve as a prerequisite to MATH 2107 or 2111. A strong component of this course will be applications taken from different areas of concentration. Credit for both MATH 1116 and 1126 will not be allowed.

MATH 1125 Precalculus Algebra 3cr.
Prerequisites: MATH 1115 or satisfactory performance on the departmental placement exam, the ACT, or the SAT. Fundamentals, functions, polynomials and rational functions, exponential and logarithmic functions. Designed for students anticipating enrollment in MATH 2107 or 2111. This course will be followed by MATH 1126 and both will be prerequisites to the calculus sequences.

MATH 1126 Precalculus Trigonometry 3cr.
Prerequisites: MATH 1125 with a grade of C or better. Trigonometric functions of real numbers, trigonometric functions of angles, analytic trigonometry, systems of equations and inequalities, the binomial theorem. Designed for students anticipating enrollment in MATH 2107 or 2111. Credit for both MATH 1116 or 1126 will not be allowed.

MATH 1140 Finite Mathematics 3cr.
Offered each semester. Prerequisite: MATH 1115 or consent of department. Introduction to set theory and counting techniques, probability, statistics, linear programming and application to behavioral sciences.

MATH 1911 Precalculus 3cr.
Prerequisite: DEVM 0107 or satisfactory performance on either the

departmental placement exam or the ACT (or SAT). Offered each semester. Absolute value equations and inequalities; algebraic, logarithmic, exponential, and trigonometric functions; complex numbers; analytic trigonometry; trigonometry and triangles; systems of linear equations; binomial theorem. Students may not receive credit in both MATH 1911 and either of 1115 1126. This course is designed for students anticipating enrollment in MATH 2107 or MATH 2111.

MATH 2090 History of Mathematics 3cr.
Prerequisite: credit or registration in MATH 2109 or 2112. A survey starting with the mathematics of the Babylonians and the Egyptians, continuing with the logic, geometry, and number theory of the Greeks; development of logarithms and projective geometry, analytic geometry, calculus, and the beginnings of modern analysis and the origins of modern algebra.

MATH 2100 Introduction to Mathematica 1cr.
Prerequisite: MATH 1115 or 1126 or 1140 or consent of department. Introduction to Mathematica, a computer algebra package that combines symbolic manipulation, built-in numerical functions, and powerful graphical capabilities for doing mathematics with the help of a computer. Emphasis will be on the use of the package as a tool for solving problems in science, engineering, and business. Programming experience is not required.

MATH 2107 Calculus and Analytic Geometry 3cr.
Offered each semester. Prerequisite: MATH 1126 with a grade of C or better. MATH 2107 with a grade of C or better recommended is prerequisite to MATH 2108; MATH 2108 with a grade of C or better recommended is prerequisite to MATH 2109. These courses cover the same topics in three semesters that MATH 2111, 2112 cover in two. A student may not receive more than five hours of degree credit for taking MATH 2107 and 2111 or more than six hours for MATH 2107, 2108, and 2111 or more than 10 hours for MATH 2107, 2108, 2109, and MATH 2111, 2112.

MATH 2108 Calculus and Analytic Geometry 3cr.
Offered each semester. Prerequisite: MATH 1126 with a grade of C or better. MATH 2107 with a grade of C or better recommended is prerequisite to MATH 2108; MATH 2108 with a grade of C or better recommended is prerequisite to MATH 2109. These courses cover the same topics in three semesters that MATH 2111, 2112 cover in two. A student may not receive more than five hours of degree credit for taking MATH 2107 and 2111 or more than six hours for MATH 2107, 2108, and 2111 or more than 10 hours for MATH 2107, 2108, 2109, and MATH 2111, 2112.

MATH 2109 Calculus and Analytic Geometry 4cr.
Offered each semester. Prerequisite: MATH 1126 with a grade of C or better. MATH 2107 with a grade of C or better recommended is prerequisite to MATH 2108; MATH 2108 with a grade of C or better recommended is prerequisite to MATH 2109. These courses cover the same topics in three semesters that MATH 2111, 2112 cover in two. A student may not receive more than five hours of degree credit for taking MATH 2107 and 2111 or more than six hours for MATH 2107, 2108, and 2111 or more than 10 hours for MATH 2107, 2108, 2109, and MATH 2111, 2112.

MATH 2111 Calculus with Analytic Geometry 5cr.
Offered each semester. Prerequisite: MATH 1126 with a grade of C or better. MATH 2111 with a grade of C or better recommended is prerequisite to MATH 2112. Brief review of pre-calculus topics; limits, continuity; algebraic and transcendental functions, their derivatives, their inverses and their integrals; fundamental theorems, conic sections, maximum-minimum problems. Integration techniques, polar coordinates, sequences, series, convergence, Taylor series, L'Hospital's Rule, improper integrals, plane vectors, lines, solids of revolution.

MATH 2112 Calculus with Analytic Geometry 5cr.
Offered each semester. Prerequisite: MATH 1126 with a grade of C or better. MATH 2111 with a grade of C or better recommended is prerequisite to MATH 2112. Brief review of pre-calculus topics; limits, continuity; algebraic and transcendental functions, their derivatives, their inverses and their integrals; fundamental theorems, conic sections, maximum-minimum problems. Integration techniques, polar coordinates, sequences, series, convergence, Taylor series, L'Hospital's Rule, improper integrals, plane vectors, lines, solids of revolution.

MATH 2115 Calculus of Several Variables 3cr.
Offered each semester. Prerequisite: MATH 2109 or 2112 with a grade of C or better recommended or consent of department. Vectors and solid analytic geometry, partial derivatives, multiple integrals, line integrals, Green's Theorem, divergence, curl and applications.

MATH 2221 Elementary Differential Equations 3cr.
Offered each semester. Prerequisite: MATH 2109 or 2112 with a grade of C or better recommended or consent of department. Differential equations of first and higher order; constant coefficient equations with and without forcing terms and applications; series solutions; Laplace transforms and systems of differential equations.

MATH 2314 Elementary Statistical Methods 3cr.
Prerequisite: A grade of C or better in MATH 1115 or MATH 1125 in six hours of mathematics courses numbered at least 1000 or consent of department. Introduction to statistical methods. Topics include data analysis, frequency distributions, probability, inference, estimation, hypothesis testing, regression and correlation.

MATH 2400 Geometry 3cr.
Spring semester. Prerequisite: MATH 2109 or 2112 or consent of department. Absolute geometry, introduction to non-Euclidean geometries, Euclidean geometries, metric approach.

MATH 2511 Introduction to Linear Algebra 3cr.
Offered each semester. Prerequisite: MATH 2109 or 2112 or consent of department. Matrices, systems of linear equations, vector spaces, linear transformations, determinants, inner products and norms, eigenvalues and eigenvectors, diagonalization.

MATH 2721 Introduction to Discrete Structures 3cr.
Prerequisite: MATH 1116 or 1126. An introduction to the discrete structures that serve as a foundation for mathematics and computer science: set theory and mathematical logic; binary relations; counting and algorithm analysis; induction and strings.

MATH 2990 Special Topics 1-3cr.
Prerequisite: consent of department. May be repeated up to six credit hours. Subject matter may change from semester to semester. Section number will correspond with credit to be earned.

MATH 2998 Independent Study: Readings 1-3cr.
Prerequisite: consent of department. Course may be repeated to a total of three hours. The course consists of directed readings designed to meet the needs and interests of the individual student; regular conferences between the student and the instructor are required. Section number will correspond with credit to be earned.

MATH 3099 Senior Honor Thesis 1-6cr.
Prerequisite: consent of department and the director of the Honors Program. Honors thesis research in mathematics under the direction of a faculty member. May be repeated until thesis is accepted for a total of six credits. Section number will correspond with credit earned.

MATH 3221 Methods in Differential Equations 3cr.
Prerequisites: MATH 2221 - Elementary differential equations, MATH 2115 - Calculus of several variables. The major emphasis of this

course will be on techniques and examples. Power series solutions, linear systems, matrix methods, eigenvalues, eigenvectors, partial differential equations, Fourier series, heat equation, wave equation, Laplace's equation.

MATH 3300 Statistical Computer Packages 1cr.
Prerequisite: MATH 2314 or consent of department. Introduction to statistical packages, emphasis will be on the use of SAS.

MATH 3512 Introduction to Abstract Algebra 3cr.
Prerequisite: MATH 2511; MATH 2721 is recommended. An introduction to modern algebraic structures: relations, mappings, semigroups, groups, rings and fields.

MATH 3900 Undergraduate Oral Examination 0cr.
Required for graduation of all Mathematics majors. A one hour oral examination in which the student will be questioned on mathematical concepts that are familiar to him or her. Successful completion of this examination will satisfy the requirement of demonstrating oral competence. A faculty committee will grade the examination on a pass-fail basis.

MATH 4010 Introduction to Modern Algebra 3cr.
Prerequisites: MATH 1021 and 1023. Groups, finite groups and permutation groups, rings and fields. Linear algebra, vector spaces, determinants and matrices, linear transformations. This course may be used for degree credit only in the elementary education curriculum at the undergraduate or graduate level.

MATH 4020 Geometry I 3cr.
Prerequisite: MATH 1023. Incidence and separation in planes and spaces; congruences between lines angles and triangles; parallel postulate; perpendicular lines and planes in space; constructions with ruler and compass. This course may be used for degree credit only in the elementary education curriculum at the undergraduate or graduate level.

MATH 4030 Probability and Finite Mathematics 3cr.
Prerequisites: MATH 1021 and 1023. Probability theory, convex sets, finite Markov chains, continuous probability theory. This course may be used for degree credit only in the elementary education curriculum at the undergraduate or graduate level.

MATH 4101 Advanced Calculus 3cr.
Prerequisite: MATH 2115. MATH 4101 is prerequisite to MATH 4102. These courses emphasize a balance between proofs and techniques in intermediate analysis involving one and several variables. Limits, continuity, differentiation, integration and convergence. Series of functions, functional dependence, Jacobian, vector analysis or other techniques of use in applications.

MATH 4102 Advanced Calculus 3cr.
Prerequisite: MATH 2115. MATH 4101 is prerequisite to MATH 4102. These courses emphasize a balance between proofs and techniques in intermediate analysis involving one and several variables. Limits, continuity, differentiation, integration and convergence. Series of functions, functional dependence, Jacobian, vector analysis or other techniques of use in applications.

MATH 4213 Fourier Series and Transforms 3cr.
Prerequisite: MATH 2115 and 2221 or consent of department. Fourier series and discrete frequency spectra, Fourier integral and continuous spectra, transformation of special functions, applications in physics and engineering.

MATH 4221 Intermediate Ordinary Differential Equations 3cr.
Prerequisite: MATH 2221 and 2511 or consent of department. Topics to be selected from the following: introduction to qualitative theory, phase plane analysis of autonomous systems, classification of equilibria, stability theory, Liapunov methods, limit cycles, Poincar Bendixson theorem, introduction to bifurcation theory and chaotic oscillations, Froebenius method for series solutions, special functions, Sturm comparison and separation theorems.

MATH 4224 Partial Differential Equations I 3cr.
Prerequisite: MATH 2115 and 2221 or consent of department. Basic techniques for solving linear partial differential equations, separation of variables, eigenfunction expansions, integral transforms, Sturm-Liouville boundary value problems, initial value problems and boundary value problems for hyperbolic, parabolic, and elliptic equations, fundamental solutions, maximum principle, classical and modern applications.

MATH 4230 Finite Element Analysis 3cr.
Prerequisites: MATH 2115, 2221 and 2511. A knowledge of Fortran or consent of department. Variational principle, weighted residual methods, finite element analysis of one and two dimensional steady state and transient boundary value problems involving partial differential equations, software development and implementations.

MATH 4240 Boundary Element Method 3cr.
Prerequisites: MATH 2115, 2221, and 2511. Some knowledge of computer programming is also required. Weak variational formulation, fundamental solutions, formulation of two- and three-dimensional boundary element equations, potential problems, nonconvex regions, linear elasticity, fluid flows, acoustics, software development.

MATH 4251 Numerical Analysis 3cr.
Prerequisite: MATH 2115 or consent of department. Numerical solution of systems of linear and nonlinear equations; interpolation, approximation, and minimization of functions; numerical integration.

MATH 4252 Numerical Analysis 3cr.
Prerequisites: MATH 2221 and 4251, or consent of department. Eigenvalue problems; numerical Fourier transforms; modeling of data; introduction to numerical solution of initial and boundary value problems in ordinary and partial differential equations.

MATH 4270 Introduction to Optimization 3cr.
Prerequisites: MATH 2115 and 2511 or consent of department. Methods for optimization of physical, economic, and business systems. Convex sets; methods for solving linear programming problems; review of classical methods of optimization; network flow analysis.

MATH 4280 Mathematical Modeling for Continuous Systems 3cr.
Prerequisite: MATH 2115 and 2221, or consent of department. General principles in mathematical modeling, derivation and analysis of specific models using ordinary and partial differential equations; examples drawn from the applied sciences may include traffic flow, biological systems, mechanical systems, discussion of stability and dependence on parameters.

MATH 4301 Analysis of Variance and Experimental Design 3cr.
Prerequisite: MATH 2314 or other introductory level statistics course, or consent of department. Only one of MATH 4301 or MATH 6301 may be counted toward a master's degree in Mathematics. An introduction to the SAS statistical computer package. Basic analysis of variance with fixed and random effects models, multifactor analysis of variance, analysis of covariance. Experimental designs including completely randomized designs, randomized block designs, nested designs, and Latin squares.

MATH 4304 Introduction to Regression Analysis 3cr.
Prerequisite: MATH 2314 or other introductory level statistics course, or consent of department. Only one of MATH 4304 or 6304 may be counted toward a master's degree in Mathematics. Linear regres-

sion, inferences in regression analysis, aptness of model and remedial measures, matrices, multiple and polynomial regression, indicator variables, multi-collinearity, selection of independent variables, nonlinear regression. SAS will be used for data analysis.

MATH 4310 Matrix Theory For Statistics 3cr.
Prerequisite: MATH 2511 or the consent of the department. Emphasis is on topics in matrix theory which frequently arise in the study of statistics. Topics in include eigenvalues and eigenvectors, generalized inverses, matrix decomposition, linear systems, matrix derivatives, and special matrices. Topics in statistics are not a portion of this course.

MATH 4311 Introduction to Mathematical Statistics 3cr.
Prerequisite: MATH 2109 or 2112 or consent of department. MATH 4311 is prerequisite to MATH 4312. Axiomatic probability, discrete and continuous distributions, expectation, estimation, central limit theorem, confidence intervals and tests of hypotheses, regression, Bayesian statistics, other topics.

MATH 4312 Introduction to Mathematical Statistics 3cr.
Prerequisite: MATH 2109 or 2112 or consent of department. MATH 4311 is prerequisite to MATH 4312. Axiomatic probability, discrete and continuous distributions, expectation, estimation, central limit theorem, confidence intervals and tests of hypotheses, regression, Bayesian statistics, other topics.

MATH 4341 Nonparametric Statistics 3cr.
Prerequisite: MATH 4301 or 4304, or consent of department. Organizing and summarizing data; one-sample, two-sample, and k-sample tests; tests based on the binomial distribution; confidence intervals; Wilcoxon type tests; Kruskal-Wallis and Friedman tests; contingency tables; tests based on ranks; and Kolgoromov-Smirnoff type statistics.

MATH 4371 Probability Theory 3cr.
Prerequisite: MATH 2115 or consent of department. Discrete probability theory, Markov chains, elementary limit laws and theorems.

MATH 4372 Applied Stochastic Processes 3cr.
Prerequisite: MATH 4311 or 4371 or consent of department. Introduction to Poisson processes, Brownian motion, branching processes, and related topics with applications.

MATH 4380 Actuarial Mathematics 3cr.
Prerequisites: MATH 2115 and MATH 2314 or consent of department. Deterministic and stochastic actuarial modeling, stochastic processes, Markov chains, the Poisson process, Brownian motion, applications of each of the above concepts to actuarial problems.

MATH 4411 Introduction to Complex Analysis 3cr.
Prerequisite: MATH 2115 or consent of department. Complex plane, analytic functions, Cauchy-Riemann equations, mappings by elementary functions, complex integration, Cauchy's theorem, Cauchy integral formula and applications, Taylor series, Laurent series, isolated singularities, residue theorem and applications.

MATH 4511 Linear Algebra 3cr.
Prerequisite: MATH 2511 or 3512. Inner product spaces, dual spaces, canonical forms, the spectral theorem, quadratic forms, operators, the classical groups, multilinear algebra and applications.

MATH 4512 Abstract Algebra 3cr.
Prerequisite: MATH 3512. Ideals, Euclidean and principal ideal domains, finite fields, Sylow theorems, and solvable groups.

MATH 4518 Elementary Number Theory 3cr.
Prerequisite: consent of department. Divisibility, congruences, power residues, quadratic residues, certain arithmetic functions and selected topics.

MATH 4524 Mathematical Logic 3cr.
Prerequisite: MATH 2721 or 3512 or consent of department. Propositional and predicate calculus; formal systems; computability and decidability.

MATH 4611 Topology 3cr.
Prerequisite: MATH 4101 or consent of department. Topological spaces, continuous maps and homeomorphisms, product spaces, connectedness, separation axioms, compactness, and metric spaces.

MATH 4711 Graph Theory 3cr.
Prerequisite: MATH 2511 or MATH 2721 or consent of department. An introduction to graph theory and its applications; the basic theorems and algorithms. Paths and cycles, colorings, planarity, directed graphs, networks.

MATH 4721 Combinatorics 3cr.
Prerequisite: MATH 2511 or 2721 or consent of department. Permutations, combinations, and partitions; inclusion-exclusion principle; generating functions and recurrence relations; matchings; combinatorial designs.

MATH 4990 Special Topics 3cr.
Prerequisite: consent of department. Six hours maximum will be accepted for graduate credit.

MATH 4991 Special Topics 3cr.
Prerequisite: consent of department. Six hours maximum will be accepted for graduate credit.

MATH 4992 Special Topics 3cr.
Prerequisite: consent of department. Six hours maximum will be accepted for graduate credit.

MATH 4998 Selected Readings in Mathematics 1-3cr.
Prerequisite: consent of department. This course may be repeated to a total of six credits. The course consists of directed readings designed to meet the needs and interests of the individual student; regular conferences between the student and the instructor are required. The section number will correspond with credit to be earned.

MATH 6005 Higher Algebra 3cr.
Prerequisites: a working knowledge of college algebra and consent of department. (This course is intended for candidates in the M.A. in Science Teaching program.) Topics covered include inequalities, complex numbers, theory of equations, mathematical induction, binomial theorem, progressions, infinite series and applications.

MATH 6006 Analytic and Vector Geometry 3cr.
Prerequisites: a working knowledge of plane geometry and college algebra and consent of department. (This course is intended for candidates in the M.A. in Science Teaching program.) Plane and solid geometry by analytic methods. Topics covered include vectors, lines, conic sections, translation and rotation of axes, polar coordinates, parametric representations; plane and three-space curves and surfaces.

MATH 6007 Topics in Higher Algebra and Geometry 3cr.
Prerequisite: MATH 6005 or 6006 or consent of department. (This course is intended for candidates in the M.A. in Science Teaching program.) Topics selected from inequalities, theory of equations, Euclidean geometry, and non-Euclidean geometry.

MATH 6020 Geometry Geometry 3cr.
Prerequisite: MATH 4020. Space figures: similarity and trigonometry, area and volume measurement, elements of spherical geometry, plane coordinate geometry. This course may be used for degree credit only in the elementary education curriculum.

MATH 6201 Introduction to Applied Mathematics 3cr.
Prerequisites: MATH 4101. MATH 4101 may be taken concurrently.

System of linear ordinary differential equations, fundamental matrices, nonlinear systems of ODE's, stability, limit cycles, separation of variables, heat equation, wave equation, Laplace's equation, Sturm-Liouville boundary value problems, Green's functions, integral transforms, conformal mapping, complex integration.

MATH 6202 Introduction to Applied Mathematics 3cr.
Prerequisites: MATH 4101 or consent of department. Dynamical systems, elementary bifurcations, chaos, nonlinear PDE, characteristics, shocks, calculus of variations, Euler-Lagrange equation, normed linear spaces, linear operators, convex analysis, optimization.

MATH 6211 Applied Analysis 3cr.
Prerequisite: MATH 4104 or 4411. Calculus of residues, Fourier and Laplace transforms, orthogonal expansion; special functions; solution of boundary value problems of partial differential equations by various methods; separation of variable, transform techniques; Sturm-Liouville theory; perturbation and asymptotic developments; Green's functions; the method of characteristics.

MATH 6221 Advanced Differential Equations 3cr.
Prerequisites: MATH 4101 or 4221. Ordinary differential equations in the real and complex domains, existence and uniqueness theorems, linear systems with constant and periodic coefficients. Linear differential equations or order n, self-adjoint eigenvalue problems, nonlinear equations, and stability theory.

MATH 6224 Partial Differential Equations II 3cr.
Prerequisite: MATH 4224 or consent of department. Topics in modern linear and nonlinear partial differential equations, distributions and weak solutions, method of characteristics, shock waves, Green functions, fixed point theorems, reaction diffusion equations.

MATH 6230 Advanced Finite Element Analysis 3cr.
Prerequisites: MATH 4224 or consent of department; Mathematics 4230 is recommended; some knowledge of computer programming is required. Galerkin method, linear triangular elements, bilinear rectangular elements, axisymmetric elements, isoparametric elements, heat transfer by conduction and convection, torsion of noncircular sections, ground water with sources and sinks, biharmonic equation, vibration of membrane, iterative methods, software maintenance and development.

MATH 6242 Functional Analysis 3cr.
Prerequisite: MATH 4102 or consent of department. Topics will be selected from the following: metric spaces, normed spaces, Banach spaces, functionals, dual spaces and weak topology, inner product spaces, Hilbert spaces, compact operators, spectral analysis, fixed point theorems, implicit function theorem, Fredholm theory.

MATH 6251 Numerical Ordinary Differential Equations 3cr.
Prerequisite: MATH 4252 or consent of department. Existence and approximation theorems for ordinary differential equations and systems of ordinary differential equations. Convergence, stability, and error analysis.

MATH 6258 Finite Difference Methods 3cr.
Prerequisites: MATH 2115, 2221 and 2511 or consent of department; Mathematics 4101 is recommended; some knowledge of computer programming is required. Introduction to finite difference methods for solving partial differential equations. Convergence, consistency, stability, description and analysis of various explicit and implicit schemes for parabolic and hyperbolic equations.

MATH 6260 Optimal Control 3cr.
Prerequisites: MATH 2221 and 4102 or consent of department. The calculus of variations and the Pontryagin maximum principle. Optimal control of linear and nonlinear systems. Algorithms for computing optimal controls.

MATH 6270 Advanced Optimization 3cr.
Prerequisite: MATH 4101 or consent of department; Mathematics 4270 is recommended. Theory and application of advanced computational methods for extremizing linear and nonlinear functions of many variables including constrained and unconstrained problems. Particular topics include a review of the simplex method an introduction to interior point methods for linear programming problems, descent methods, Newton-like methods, conjugate direction methods, and quadratic and nonlinear programming.

MATH 6290 Topics in Numerical Analysis 3cr.
Prerequisite: consent of department.

MATH 6300 Statistical Programming with SAS 3cr.
Prerequisites: Previous experience using the SAS statistical package or consent of department. Proc IML, SAS macros and applications, Monte Carlo methods, resampling methods including bootstrap and jackknife, selected SAS procedures, statistical report writing with SAS.

MATH 6301 Applied Statistics 3cr.
Prerequisite: MATH 4301 or consent of department. Only one of MATH 4301 or 6301 may be counted toward a master's degree in mathematics. Data analysis, analysis of variance, regression analysis, nonparametric methods, use of computer packages.

MATH 6303 Multivariate Statistical Analysis 3cr.
Prerequisite: MATH 6301 or consent of department. Multivariate normal distribution, test of hypothesis on means, multivariate analysis of variance, canonical correlation.

MATH 6304 Regression Analysis 3cr.
Prerequisite: MATH 6301 or consent of department. Linear regression, regression diagnostics, multiple regression, nonlinear regression. Only one of MATH 4304 or 6304 may be counted toward a master's degree in Mathematics.

MATH 6311 Mathematical Statistics 3cr.
Prerequisites: Consent of department. MATH 6311 is prerequisite to MATH 6312. Theory of probability distributions, random variables and functions of random variables, multivariate and conditional distributions, order statistics, sampling distributions, theory of estimation and hypothesis testing.

MATH 6312 Mathematical Statistics 3cr.
Prerequisites: Consent of department. MATH 6311 is prerequisite to MATH 6312. Theory of probability distributions, random variables and functions of random variables, multivariate and conditional distributions, order statistics, sampling distributions, theory of estimation and hypothesis testing.

MATH 6321 Sampling Theory 3cr.
Prerequisite: MATH 6311 or consent of department. Simple random sampling with and without replacement, sampling with varying probabilities, stratified sampling, cluster sampling, subsampling, systematic sampling, two-stage sampling, and sequential sampling.

MATH 6331 Categorical Data Analysis 3cr.
Prerequisite: MATH 6311 and 6312 or consent of department. Analysis of contingency tables, exact small sample tests, large sample inference, logistic regression, logit, probit, extreme value, loglineaer and other generalized linear models, model building and applications.

MATH 6341 Linear Statistical Models 3cr.
Prerequisite: MATH 6312 or consent of department. Multivariate normal distribution, matrix operations, distributions of quadratic forms, general linear hypotheses, standard models, computing techniques.

MATH 6342 Design of Experiments 3cr.
Prerequisite: MATH 6341 or consent of department. Matrix methods including calculus, principles of experimental design, techniques of analysis.

MATH 6351 Time Series Analysis 3cr.
Prerequisite: MATH 6311 or consent of department. Autocorrelation, spectral analysis and filtering, autoregressive (AR) models, moving average (MA) models, ARMA models, ARIMA models, model identification, forecasting, and estimation of parameters.

MATH 6361 Statistical Quality Control 3cr.
Prerequisite: MATH 4301 or 4304 or consent of department. Management and quality, construction and analysis of control charts for variables and attributes, Markov chain representations of control charts, capability analysis, reliability, continuous sampling plans, acceptance sampling, tolerances.

MATH 6362 Reliability Theory 3cr.
Prerequisite: MATH 6301 or consent of department. Reliability of coherent systems, distributions in reliability, classes of life distributions, maintenance and replacement policies, availabilities, competing risks, reliability hypothesis testing, estimation of reliability functions, regression models for reliability data, and fault tree analysis.

MATH 6370 Statistical Consulting 3cr.
Prerequisite: consent of the department. Theory and practice of effective statistical consulting. Communication with clients, problem solving, and report writing. May be repeated for credit. Students may not count more than six semester hours credit for MATH 6370 toward a degree in Mathematics.

MATH 6371 Probability 3cr.
Prerequisite: MATH 4371 or 4311 or consent of department. Measure theoretic origins, infinite dimensional probability spaces, modes of convergence, laws of large numbers, central limit theorems; certain topics from infinitely divisible laws, stochastic processes, separability, martingales and semi-martingales, ergodic theory, systems theory and stopping rules.

MATH 6372 Mathematics of Financial Derivatives 3cr.
Prerequisite: credit or concurrent registration in MATH 4311 or the consent of the department. A brief introduction to financial derivatives, normal random variables, geometric brownian motion, stochastic differentiation, stochastic integration, ito's lemma, the Black-Scholes PDE and its solution.

MATH 6381 Biostatistics 3cr.
Prerequisite: MATH 6311 or consent of the department. Biostatistical design of medical studies, one- and two-sample inference, counting data, nonparametric, distribution-free and permutation models: robust procedures, simple and multiple regression, multiple comparisons, cross-over designs, discrimination and classification, and other topics.

MATH 6382 Statistical Analysis of Survival Data 3cr.
Prerequisite: MATH 6311 and 6312 or consent of department. Failure times, censoring mechanisms, failure rates, survival functions, product limit estimators, covariates, Cox model, partial likelihood, exponential regression, rank tests, and other topics.

MATH 6385 Longitudinal Data Analysis 3cr.
Prerequisite: MATH 6311, 6312 or consent of department. Presentations of longitudinal data, general linear models for longitudinal data, parametric models for covariance structure, analysis of variance methods, marginal models, random effects models, methods for discrete longitudinal data.

MATH 6390 Topics in Probability and Statistics 3cr.
Prerequisite: consent of department.

MATH 6411 Complex Analysis 3cr.
Prerequisite: MATH 4411. Analytic continuation, reflection principle, argument principle, Rouche's theorem. Convergence of sequences, series, and infinite products of analytic functions. Entire functions, conformal mappings, Riemann mapping theorem, Riemann surfaces, gamma function, Riemann zeta function.

MATH 6450 Measure and Integration 3cr.
Prerequisite: MATH 4102 or consent of department. MATH 6450 is prerequisite to MATH 6451. Measure theory, integration, types of convergence, absolute continuity, function spaces.

MATH 6451 Measure and Integration 3cr.
Prerequisite: MATH 4102 or consent of department. MATH 6450 is prerequisite to MATH 6451. Measure theory integration types of convergence absolute continuity function spaces.

MATH 6490 Topics in Analysis 3cr.
Prerequisite: consent of department.

MATH 6491 Topics in Analysis 3cr.
Prerequisite: consent of department.

MATH 6492 Topics in Analysis 3cr.
Prerequisite: consent of department.

MATH 6511 Algebra 3cr.
Prerequisite: MATH 4512. Infinite Abelian groups, ordered groups, free groups, finite groups, rings, fields, field extensions, finite fields, Galois theory.

MATH 6590 Topics in Algebra 3cr.
Prerequisite: consent of department.

MATH 6591 Topics in Algebra 3cr.
Prerequisite: consent of department.

MATH 6592 Topics in Algebra 3cr.
Prerequisite: consent of department.

MATH 6611 Topology 3cr.
Prerequisite: MATH 4611. Homotopy, dimension theory, uniform spaces, compactification and other basic advanced topics.

MATH 6690 Topics in Topology 3cr.
Prerequisite: MATH 6611 or consent of department.

MATH 6998 Advanced Readings in Mathematics 1-3cr.
Prerequisite: consent of department. This course may be repeated to a total of six credits. The course consists of directed readings designed to meet the needs and interests of the individual student; regular conferences between the student and the instructor are required. The section number will correspond with credit to be earned.

MATH 7000 Thesis Research 1-9cr.
To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

MATH 7040 Examination or Thesis Only 0cr.
No credit. Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

Mechanical Engineering

ENME 1781 Computer Aided Engineering Graphics 3cr.
Prerequisite: MATH 1126 or consent of department. An introduction to conventional engineering graphics with emphasis on current computer techniques; isometric and orthographic projection; ortho-

graphic sketching; sectional views; points, lines, planes; surface intersections and developments; revolved, primary, and secondary views.

ENME 2711 Structures and Properties of Materials Laboratory 1cr.
Prerequisite: credit or registration in ENME 2740. Demonstrative and participative experiments supplementing ENME 2740 to provide a better understanding of the properties of engineering materials. Three hours of laboratory.

ENME 2740 Structure and Properties of Materials 3cr.
Prerequisites: CHEM 1014 or 1017 and PHYS 1061. Introduction to the structure and formation of metals, alloys, and polymeric materials and their chemical, electrical, mechanical, and thermodynamical properties; surface structures and their observation, using a metallograph and selected microscopes.

ENME 2750 Dynamics 3cr.
Prerequisites: Civil Engineering 2350 and Mathematics 2112. Kinematics, kinetics, work and energy, impulse and momentum. Three hours of lecture and one hour of recitation.

ENME 2785 Introduction to Computer Integrated Manufacturing Methods 3cr.
Prerequisite: credit or registration in ENME 1781. An introduction to classical and automated manufacturing; including computer numerical control lathe and mill application, and assembly line application with robots.

ENME 3020 Engineering Analysis 3cr.
Prerequisites: MATH 2221; credit or registration in MATH 2115. Application of LaPlace transforms, Fourier series, matrices, partial differential equations, probability/statistics to selected problems in Civil, Mechanical, and Naval Architecture and Marine Engineering.

ENME 3092 Mechanical Engineering Design Project 3cr.
Prerequisites: Junior standing and consent of department. Individual or team study and evolution of a project involving engineering. Comprehensive oral and written reports are required.

ENME 3093 Special Problems in Mechanical Engineering 1cr.
Prerequisite: Junior standing in engineering. Seminar, independent study, and research participation in mechanical engineering.

ENME 3094 Special Problems in Mechanical Engineering 1cr.
Prerequisite: Junior standing in engineering. Seminar, independent study, and research participation in mechanical engineering.

ENME 3095 Special Problems in Mechanical Engineering 1cr.
Prerequisite: Junior standing in engineering. Seminar, independent study, and research participation in mechanical engineering.

ENME 3711 Thermal Sciences Laboratory 1cr.
Prerequisites: credit in ENME 3771 or consent of department. A laboratory in engineering thermodynamics and heat transfer. Three hours of laboratory.

ENME 3716 Fluid Mechanics Laboratory 1cr.
Prerequisite: credit or registration in ENME 3720 or consent of department. A laboratory in engineering fluid mechanics and hydraulics. Three hours of laboratory.

ENME 3720 Fluid Mechanics 3cr.
Prerequisites: MATH 2221, ENME 2750 and credit or registration in ENME 3770 and MATH 2115. Fluid statics, concepts, principles, and methods of fluid motion, potential flow. Introduction to boundary layer; turbulence and drag; dimensional analysis and similitude.

ENME 3733 Machine Design 3cr.
Prerequisites: ENGL 2152, ENME 3734 and credit or registration in ENME 3735. Theory and practice of machine design applied to entire machines. Complete design including drawings, analysis, written report, and oral presentation are required.

ENME 3734 Machine Elements 3cr.
Prerequisites: ENCE 2351, ENME 2740 and credit or registration in ENME 2785. Application of engineering mechanics to the design and selection of machine elements. Fatigue. Working stresses. Failure theories.

ENME 3735 Mechanism Design 3cr.
Prerequisites: CSCI 1201 or 1205 and ENME 2750. Kinematic synthesis of mechanisms and dynamics of machinery; design of mechanisms to generate required point paths, functions, or transformations between modes of motion; translation to rotation; graphical, analytical, and computer-aided design methods.

ENME 3755 Introduction to Mechanical Vibrations 3cr.
Prerequisites: MATH 2221, ENME 2750 and concurrent registration in ENME 3020; or consent of department. Single and double degree of freedom systems in free and forced motion, lumped parameter analysis of continuous systems, and vibration measurement devices.

ENME 3757 Introduction to Mechanical Control Systems 3cr.
Prerequisites: ENME 2750, MATH 2221, and ENEE 2500; or consent of department. Mathematical modeling of mechanical systems; model linearization; methods of solution and simulation; basic notions of feedback control algorithms; transfer functions, frequency response, and system identification and stability.

ENME 3761 Introduction to Nuclear Engineering 3cr.
Prerequisites: credit or registration in PHYS 2064 and ENME 3770 or consent of department. Radiation decay; detection; protection and safety. Applications of radioactive -isotopes; introduction to nuclear power, nuclear fuels, fuel cycle, and power plant design.

ENME 3770 Engineering Thermodynamics 3cr.
Prerequisites: Mathematics 2109 or 2112 and Physics 1062. Basic laws of thermodynamics; equilibrium; entropy; availability; flow and non-flow processes.

ENME 3771 Heat Transfer 3cr.
Prerequisites: MATH 2221, CSCI 1201, ENME 3720 and ENME 3770. Steady and unsteady conduction; natural and forced convection; radiation; heat exchangers; introduction to two-phase heat transfer. Computer-aided solutions to heat transfer problems.

ENME 3772 Environmental Control Systems 3cr.
Prerequisite: ENME 3771. The principles of heating, ventilating, air conditioning, and refrigeration; application to environmental control systems. Emphasis is on the selection of equipment and the design of various systems, including automatic controls.

ENME 3773 Design of Thermal-Fluid Systems 3cr.
Prerequisites: ENME 3770 and 3771 or consent of department. Design of thermal-fluid systems utilizing the principles of heat transfer, thermodynamics, and fluid mechanics with emphasis on practical, economical designs. Semester projects are assigned to student groups; weekly progress reports, final written and oral reports required.

ENME 3776 Intermediate Engineering Thermodynamics 3cr.
Prerequisite: ENME 3770. Application of principles of thermodynamics; vapor and gas cycles; internal combustion engines; steam and gas turbines, mixtures, thermodynamic relationships.

ENME 3777 Energy Conversion 3cr.
Prerequisite: ENME 3770. Direct energy conversion; magnetohydrodynamics; energy storage; vapor and gas cycles; applications and

thermodynamic analysis; nuclear, hydrodynamic, solar, geothermal, and wind energy.

ENME 3780 Introduction to Computer-Aided Mechanical Design 3cr.
Prerequisites: CSCI 1201, ENME 3020 credit or registration in ENME 3731; or consent of department. An introduction to computing environments and underlying algorithms of computer-aided design. Topics include: graphical user interfaces, data interpolation, integration and differentiation, roots, systems of equations, simulation, optimization, graphics, and visualization.

ENME 3785 Computer-Integrated Manufacturing Systems 3cr.
Prerequisites: ENEE 2500 and credit or registration in ENME 2785 and ENME 3780. Automated manufacturing; system dynamics and controls of mechanical systems; robotic systems and their applications; numerical machine program generation from 3-D geometrical images.

ENME 3900 Senior Honors Thesis 1-6cr.
Prerequisites: admission to the Honors Program and consent of the director of the Honors Program and the chair of the department. Senior-level research and/or design project in mechanical engineering. Thesis and oral examination required. May be repeated for credit with total hours not to exceed six.

ENME 4023 Intermediate Engineering Analysis
3cr.
Prerequisites: MATH 2221 and ENME 3020. Application of complex variables; contour integration; conformal mapping; Cartesian tensors; non-linear differential equations; and selected problems in mechanical engineering

ENME 4096 Special Topics in Mechanical Engineering 3cr.
Prerequisite: junior standing in engineering. Course may be taken for credit three times. No student may earn more than nine hours degree credit in courses ENME 4096 and 4097.

ENME 4097 Special Topics in Mechanical Engineering 3cr.
Prerequisite: junior standing in engineering. Course may be taken for credit three times. No student may earn more than nine hours degree credit in courses ENME 4096 and 4097.

ENME 4720 Intermediate Fluid Mechanics 3cr.
Prerequisites: ENME 3720 and 3020 or consent of department. Study of the conservation equations governing viscous or inviscid flow of an incompressible fluid, and appropriate engineering approximation in engineering design. Introduction to numerical methods used to solve steady or unsteady viscous or inviscid, laminar, or turbulent flows.

ENME 4721 Gas Dynamics 3cr.
Prerequisites: MATH 2221, ENME 3720 and 3770. Conservation laws, one-dimensional flow, stationary and propagating normal shocks, quasi-one-dimensional flow, Rayleigh line flow, Fanno line flow, oblique shocks, Prandtl-Meyer expansions.

ENME 4722 Design and Selection of Turbomachinery 3cr.
Prerequisites: ENME 3720 and 3770 or consent of department. Analysis of the fluid flows through a turbomachine for compressible and incompressible flows. Determination of blading design and orientation for various types of turbomachines. Axial and radial flow machines, centrifugal pumps, fans, and compressors are included along with some experimentation with turbomachines.

ENME 4723 Ocean and Coastal Engineering 3cr.
(ENCE 4723, ENME 4723, and NAME 4723 are cross-listed). Prerequisite: ENME 3720 or ENCE 3318 or consent of the department. Elements of wind and wave generation and forecasting, tidal phenomena, hurricanes, storm surge, tsunamis, interaction of waves and wind with coastal and offshore structures, coastal and estuary processes. Design aspects of various topics are discussed and analyzed: e.g., offshore structures, spar buoys, underwater pipelines, oil production risers, coastal protection, mooring cables, vortex shedding, gas flares, beach formation, harbor resonance, structure resonance, etc. A design project is required.

ENME 4724 Fluid Flow Systems 3cr.
Prerequisite: ENME 3720 or consent of department. Properties of hydraulic fluids; hydraulic lines; pipe networks; principles and design of hydraulic and pneumatic control components and systems; fluid machinery.

ENME 4725 Incompressible Aerodynamics 3cr.
Prerequisites: ENME 3020 and 3720. Basic phenomena of the external flow of incompressible fluid. Theoretical development of the lift of plane, cambered airfoils, and the lift and drag of the finite wing. Comparison and discussion of experimental values of lift and drag.

ENME 4728 Introduction to Computational Fluid Dynamics 3cr.
(NAME 4728 and ENME 4728 are cross-listed.) Prerequisites: Mechanical Engineering 3720. Classification of partial differential equations, mathematical description of fluid flow phenomena. Survey of various discretizaiton methods for the equations of fluid mechanics, including finite difference, finite volume and weighted residual methods. Basic algorithms for solving fluid mechanics problems. Introduction to grid generation. Application of existing CFD codes to practical engineering problems.

ENME 4734 Reliability, Availability, and Maintenance of Engineering Systems 3cr.
(NAME 4131, ENME 4734, and ENEE 4131 are cross-listed) Prerequisite: MATH 2115. Review of probability and statistics; analytical stochastic models for component and system failures; strategies for inspection, maintenance, repair and replacement. Introduction to fault-tree and event-tree analysis; frequency and duration techniques; Markov models; and case studies.

ENME 4735 Reliability in Engineering Design 3cr.
Prerequisite: ENME 3020 or consent of department. Probabilistic approach to design and analysis of engineering problems. Statistical methods include point and interval estimation, tests of hypotheses, functions of random variables, and reliability analysis.

ENME 4751 Advanced Dynamics 3cr.
Prerequisites: ENME 2750 and MATH 2221. Central force motion, three-dimensional kinetics, kinematics, and dynamics of rigid bodies; gyroscopic motion; Lagrange's equations; Hamilton's principle; and trajectories.

ENME 4752 Mechanical Systems Dynamics for Control 3cr.
Prerequisites: ENME 2750, 3020 and ENEE 2500; or consent of department. Mathematical modeling of mechanical electrical and electromechanical systems. Model linearzation. Computer simulation. Mathematical modeling of dynamic systems in state space. Linear systems analysis in the time/frequency domain. Introduction to feedback control systems.

ENME 4753 Process Control Systems 3cr.
(ENEE 4534 and ENME 4753 are cross-listed) Prerequisites: ENEE 3533 or ENME 3020. A study of contemporary automatic control methods for continuous industrial processes. Topics include characterization of typical process dynamics, plant identification, parameter estimation, controller tuning techniques, and industrial process instrumentation applications.

ENME 4757 Intermediate Mechanical Vibrations 3cr.
Prerequisite: ENME 3755 or consent of department. Fundamental phenomena of multi-degree discrete and continuous systems.

Matrix methods of solution of discrete systems. Determination of natural frequencies and mode shapes of discrete and continuous systems. Methods of passive vibration control. Brief introduction to finite element methods.

ENME 4770 Design of Solar Heating and Cooling Systems 3cr.
Prerequisite: credit or registration in ENME 3771 or consent of department. Availability and characteristics of solar energy; design performance and testing of flat plate and concentrating collectors; solar heating and cooling of buildings; air systems and water systems; storage systems; economics; typical designs; solar cells

ENME 4771 Intermediate Heat Transfer 3cr.
Prerequisite: ENME 3771 or consent of department. Review of basic modes of heat transfer; combined convection and radiation; boiling and condensation; introduction to numerical methods for solving heat transfer problems; application of heat transfer principles to related problems in engineering.

ENME 4772 Internal Combustion Engines 3cr.
Prerequisites: ENME 3720 and 3776. Introduction of fundamental concepts and theories of internal combustion engines including ideal and real thermodynamic cycles, fuels, combustion, emissions, spark-ignition engines, and compression-ignition engines.

ENME 4773 Energy Management 3cr.
Prerequisites: ENME 3720 and 3771 or consent of department. Technical elements of reducing energy consumption and costs; aspects of management and cost elements pertaining to engineering decision making; typical topics include electrical, utility, process, building and heating, ventilating and air conditioning systems; waste heat management and energy auditing.

ENME 4774 Gas Turbine Systems 3cr.
Prerequisites: ENME 3720 and ENME 3776 Introduction to guiding principles in gas turbine cycles, combined power systems, turbine and compressor design precedures and performance prediction for both axial and radial flow turbines.

ENME 4783 Introduction to Robotics 3cr.
Prerequisites: ENME 3735 or consent of department. Spacial description and transformations; forward kinematics; inverse kenetics; manipulator Jacobians; manipulator statics; and manipulator dynamics.

ENME 6024 Boundary Value Problems 3cr.
Prerequisite: ENME 4023 or consent of department. A unified study of the techniques available for the solution of boundary value problems of the types found in advanced engineering analysis. Application to representative problems from specific areas of engineering.

ENME 6028 Finite Element Methods in Engineering Analysis 3cr.
Prerequisites: ENME 3020 or consent of department. Formulation and solution of the finite element method for solving a wide class of engineering problems in the fields of solid and fluid mechanics. Weighted residual techniques, variational methods, and isoparametric element formulations are covered. Applications include linear transient analyses and material and geometric non-linearities.

ENME 6090 Research Seminar 0cr.
Students, faculty, or invited guest speakers will present their research activities in the field of mechanical engineering and/or engineering sciences. Graduate students in the MS and PhD programs with concentration in mechanical engineering are expected to register in this seminar (once for MS and twice for PhD students.) Students are encouraged to enroll in this course during their last year of studies. Grades will be assigned on a S/U basis and attendance is necessary for an S grade. This course will be offered each semester and the class will meet weekly for one hour.

ENME 6095 Advanced Mechanical Engineering Problems 1-6cr.
Individual projects in selected fields of mechanical engineering. Independent work under the direction of a faculty member on a subject of mutual interest. Student must find faculty sponsor. A written report will usually be required. Course may be repeated for credit but no more than a total of six credit hours may be applied toward a degree. Section number will correspond with credit to be earned.

ENME 6096 Advanced Special Topics in Mechanical Engineering 3cr.
Prerequisite: consent of department. Special lectures or independent study on subjects of current interest in the various fields of mechanical engineering. May be taken for credit three times. No student may earn more than a total of nine hours of degree credit in courses ENME 4096, 4097, 6096, 6097, 6098.

ENME 6097 Advanced Special Topics in Mechanical Engineering 3cr.
Prerequisite: consent of department. Special lectures or independent study on subjects of current interest in the various fields of mechanical engineering. May be taken for credit three times. No student may earn more than a total of nine hours of degree credit in courses ENME 4096, 4097, 6096, 6097, 6098.

ENME 6098 Advanced Special Topics in Mechanical Engineering 3cr.
Prerequisite: consent of department. Special lectures or independent study on subjects of current interest in the various fields of mechanical engineering. May be taken for credit three times. No student may earn more than a total of nine hours of degree credit in courses ENME 4096, 4097, 6096, 6097, 6098.

ENME 6354 Theory of Elasticity 3cr.
Prerequisites: ENCE 6353 or consent of department. Plane stress and plane strain; two-dimensional problems in rectangular and polar coordinates; strain energy methods; complex variables in two-dimensional problems; the general equations of three-dimensional elasticity.

ENME 6355 Theory of Plates and Shells 3cr.
(ENCE 6355 and ENME 6355 are cross-listed) Prerequisites: ENCE 6353 and MATH 2221. Laterally loaded plates with various boundary conditions; elastic stability of plates; differential geometry of surfaces; equilibrium and strain equations; membrane theory of shells; shells of revolution with emphasis on cylindrical and spherical shells.

ENME 6356 Mechanics of Composite Materials 3cr.
Prerequisites: ENCE 6353 or consent of department. Analysis of stress, strain, and strength of fiber reinforced composite laminates. Topics include laminated plate theory, stress analysis of orthotropic plates, damage mechanisms, fatigue, impact, and environmental effects.

ENME 6357 Fracture Mechanics 3cr.
Prerequisite: ENME 6354 or 6355 or 6756 or consent of department. Stationary crack under static loading, energy balance and crack growth, crack initiation and growth, dynamic crack growth, fatigue, fracture of composite material.

ENME 6362 Aerospace Composite Structures 3cr.
Prerequisites: Mechanics of Materials or consent of the department. Basic Theorems and principles in the theory of structures (strain energy, virtual displacement, minimum total potential energy), general theory of beams bending (warping, shear flow in multi-flanged beams), general theory of torsion (shear center, multi-cell structures), plane stress problems, with application to design of aerospace structures made of composite materials.

ENME 6364 Advanced Composite Materials 3cr.
Prerequisite: Consent of the Department. Thermal and Moisture Effects on Composite materials, Stress State of composite beams under long term loading, viscolastic displacement of beams, torsion of laminated beams. Optimum design of composite material structures, mechanics of sandwich structures.

ENME 6720 Advanced Fluid Mechanics 3cr.
Prerequisite: ENME 4720 or consent of department. Continuity; stream and potential function; irrotational flow; Laplace Euler and Bernoulli equations; standard patterns of flow; conformal transformations; Schwarz-Christoffel theorem; and vortex motion.

ENME 6721 Advanced Gas Dynamics 3cr.
Prerequisite: ENME 4721. Derivation of the differential conservation equations for inviscid flows; unsteady wave motion; acoustic theory; shock tube relations; linearized supersonic flow; numerical techniques for steady supersonic flow; and viscous compressible flow.

ENME 6723 Boundary Layer Theory 3cr.
Prerequisite: ENME 4720 or consent of department. Fundamental laws of motion for a viscous fluid; laminar boundary layer; transition and separation; and turbulent boundary layer.

ENME 6724 Viscous Flow 3cr.
Prerequisites: ENME 3720 or consent of the department. Fundamental Equations of viscous fluid flow. Newtonian viscous flow, Stokes assumptions, and exact solutions to Navier-Stokes equations. Order of magnitude analysis. Similarity solution. Integral equations of viscous flow. Duct flow, free shear flow, creeping flows, and free convection flow. Introduction to flow instabilities and turbulence.

ENME 6727 Turbulence 3cr.
Prerequisites: ENME 3720 and 3020 or consent of Department. Fundamental mechanics of turbulence, wakes, jets and plumes. Structure of time averaged flows, flow instability, Reynolds stresses, spectral dynamics, and scales of turbulence. First order models: algebraic, one-equation and two-equation models. Second order models, Reynolds stresses, multi-equation models.

ENME 6728 Advanced Computational Fluid Dynamics (CFD) 3cr.
Prerequisites: ENME 3720 and 3020, ENME 4728, and CSCI 1201, or consent of department. Numerical modeling of the equations of fluid mechanics. Equation classification, theory of characteristics. Survey of discretization methods: finite difference, finite volume, integral methods. Basic grid generation techniques. Stability analysis for finite difference equations. Discretization techniques applied to steady state and tine dependent problems in multi-dimensions. Navier-Strokes equations, inviscid and viscous flow. Course will include projects to develop finite difference codes in areas relevant to student's research interests.

ENME 6730 Multiphase Flow 3cr.
Prerequisites: ENME 3720. Fundamentals of various physical interactions in flow systems involving more than one phase, including gas-solid, gas-liquid, liquid-solid, and three-phase interactions. Primary emphasis is placed on the fluid dynamics of particles, droplets, and bubbles suspended in a fluid. The effects of phenomena such as Brownian motion, Basset effect, Magnus effect, virtual or apparent mass effect, shear lift, surface charge, particle and droplet mobility, electro- phoresis, thermo-phoresis, photo-phoresis, and diffusion-phoresis are covered. Applications to multiphase system equipment and processes such as dust collectors, fluidized beds, aerodynamic ablation, xerography, atomizers, combustors, evaporation, droplet coalescence and break-up, cavitation, and aeration are highlighted.

ENME 6753 Advanced Continuum Mechanics 3cr.
Prerequisite: consent of department. Kinematics of motion and deformation; general development of balance equations of continuum mechanics; theory of constitutive equations; study of the constitutive equations for elastic, hyperelastic, viscoelastic, and plastic materials.

ENME 6755 Advanced Vibrations 3cr.
Prerequisite: ENME 4757. Lagrange's equations of motion and their application to vibration analysis; multi-degree of freedom systems; matrix methods; and transients.

ENME 6756 Theory of Plasticity 3cr.
Prerequisite: ENCE 6353 or consent of department. Stress and strain tensors; elastic stress-strain relations criteria of yielding; plastic stress-strain relations; elastoplastic problems of spheres and cylinders; the plane elastoplastic problem; the slip-line field.

ENME 6758 Advanced Computational Methods in Solid Mechanics 3cr.
Prerequisites: ENME 3020 or consent of department. Numerical methods for solving problems involving deformable solids. Variational methods including Galerkin, Rayleigh-Ritz, and other weighted residual techniques are covered. Finite difference, finite element, and boundary element techniques are presented.

ENME 6770 Advanced Thermodynamics 3cr.
Prerequisites: ENME 3770 or consent of department. Review of basic laws of classical thermodynamics. Reversible and irreversible processes. Second law analysis. Entropy and availability. Maxwell relations. Thermodynamics of mixtures, first and second law of reacting systems. Phase equilibrium. Introduction to statistical thermodynamics.

ENME 6771 Conduction Heat Transfer 3cr.
Prerequisite: ENME 4771 or consent of department. Conduction heat transfer; steady state and transient system; one-dimensional, two-dimensional, and three-dimensional systems.

ENME 6772 Convection Heat Transfer 3cr.
Prerequisites: ENME 4771 and 4720 or consent of department. Forced and free convection heat transfer in laminar and turbulent flow; condensation and evaporation; and special heat transfer processes.

ENME 6773 Radiation Heat Transfer 3cr.
Prerequisite: ENME 4771. Radiative heat exchange among specularly and diffusely reflecting surfaces; radiant interchange in participating media; combined radiation, conduction, and convection; and advanced topics.

ENME 6774 Computational Heat Transfer 3cr.
Prerequisites: ENME 3771 or consent of the department. Foundations of finite - difference and finite element methods. Classification of governing differential equations in heat transfer. Discrete approximations of derivatives. Methods of solving sets of algebraic equations, computationals methods for steady state, parabolic, elliptic, and hyperbolic type of heat transfer problems. Non-linear heat transfer problems. Introduction to grid generation.

Military Science

MILS 1001 Dynamics of Leadership I 2cr.
Offered fall semester. An introductory course on the history and organization of Army ROTC and an initial study of leadership traits, principles, and characteristics. The student is introduced to the characteristics and capabilities of individual and crew-served weapons such as the M-16 rifle and the M-60 machine gun. The student is further oriented to the customs and courtesies of the military service and is given a brief overview of the present pay system, service benefits, and the national defense structure, and the

basic organization and functions of a military squad and platoon. Course includes periodic field trips. Two hours of lecture.

MILS 1002 Techniques of Military Leadership 2cr.
Offered spring semester. Prerequisite: MILS 1001 or consent of department. A continuation of leadership training to include: weapons training (assembly and disassembly procedures for the M-16 rifle and M-60 machine gun), communications (radio-telephone procedures, use of a CEOI), first-aid (bleeding, shock, burns, fractures, CPR), and concluding with training in NBC (nuclear, biological, chemical) topics. Course includes periodic field trips. Two hours of lecture

MILS 2001 Applied Leadership 2cr.
Offered fall semester. Prerequisite: MILS 1002 or consent of department. The course begins with an introduction to military map reading covering topics such as: grid coordinates, elevation, relief, distance, polar coordinates, intersection, and resection. Concludes with preliminary marksmanship instruction covering topics such as: mechanical training (assembly and disassembly, operation and functioning, care and cleaning, stoppage, immediate action, remedial action, malfunctions) and marksmanship fundamentals (aiming, steady hold factors, firing positions). Course includes training in physical conditioning and periodic field trips. Two hours of lecture and three hours of laboratory.

MILS 2002 Advanced Military Leadership and Management 2cr.
Offered spring semester. Prerequisite: MILS 2001 or consent of department. An introduction to management principles and techniques. Includes a discussion of leadership principles and application of leadership techniques. Course concludes with an introduction to military correspondence, discussion of customs and traditions, and Ranger Challenge skills such as knot tying and rope bridge. Course includes training in physical conditioning and periodic fields trips. Two hours of lecture and three hours of laboratory.

MILS 3001 Basic Tactics 3cr.
Offered fall semester. Prerequisite: MILS 2002 or consent of department. Introduction to U.S. Army tactical concepts and procedures, principles and evolution of war, and relationship between weapons and tactics. Includes a comparative study of U.S. and U.S.S.R. organizations, advanced map reading and terrain association, operation orders format, and concludes with a study of offensive operations (movement techniques formations, control measures, conduct of the offense, and offensive operation order exercise). Course includes training in physical conditioning and periodic field trips. Three hours of lecture and three hours of laboratory.

MILS 3002 Advanced Tactics 3cr.
Offered spring semester. Prerequisite: MILS 3001. Continuation of the study of U.S. Army tactical concepts. The course begins with a study of defense operations (range cards and sector sketches, retrograde operations) and continues with patrolling techniques, low intensity conflict, call for fire. Concludes with an overview of advanced camp communication procedures, physical training program, practical application of drill and ceremonies, review of tactics, and explanation of the tactical application exercise. Course includes training in physical conditioning and periodic field trips. Three hours of lecture and three hours of laboratory.

MILS 3402 Ethics of Leadership 3cr.
Prerequisite: Military Science 3002. First part of the capstone course leading to commissioning in the U.S. Army. Course includes a study of military ethics and professionalism (introduction to the profession of arms, basic understanding of the professional soldier's responsibilities to the Army and the nation, an awareness and sensitivity to ethical issues, improved ethical decision making skills). Course concludes with cadet presentation of professional knowledge subjects (conduct briefings, military correspondence, information decision paper, after-action report, counseling techniques, intelligence and combat information, post and installation support). Course includes training in physical conditioning and periodic field trips. Two hours of lecture and three hours of laboratory.

MILS 4001 Ethics Of Leadership 2cr.
Fall semester. Prerequisites: MILS 3002.A study of military ethics and professionalism (introduction to the profession of arms, basic understanding of the professional soldier's responsibilities to the Army and the Nation, an awareness and sensitivity to ethical issues, improved ethical decisions making skills). Course concludes with cadet presentation of professional knowledge subjects (conducts briefings, military correspondence, information/decision paper, after-action report, counseling techniques, intelligence and combat information, post and installation support). Includes training in physical conditioning and periodic field trips. Two hours of lecture and one hour of laboratory

MILS 4002 Professionalism of Leadership 2cr.
Spring semester. Prerequisite: MILS 4001. Emphasis is on command and staff functions, planning and preparation of training, logistics, and personal management. Course concludes with the study of military justice and the law of war. Includes training in physical conditioning and periodic field trips. Two hours of lecture and one hour of laboratory.

Music

Not more than eight semester hours from Music 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1950 may be offered for graduation.

MUS 1000 Music Appreciation 3cr.
Offered each semester. An appreciation and analysis from the viewpoint of the listener of representative works in Western art tradition, covering for example, selected masterworks of Bach, Handel, Mozart, Beethoven, Brahms, Tchaikovsky, Bartok, and Stravinsky. No previous knowledge of or about music is required.

MUS 1003 Early Jazz 3cr.
Offered each semester. An introduction to the principal movements, schools, and performers of American Jazz from the New Orleans Era through World War II. No previous knowledge of or about music is required

MUS 1004 Contemporary Jazz 3cr.
Offered each semester. An introduction to the principal innovators styles and schools of jazz from World War II to the present. Music 1003 and 1004 may be taken separately or in reverse order. No previous knowledge of or about music is required.

MUS 1005 Introduction to Music Literature 3cr.
An introduction to the classics of Western music with special regard to the manner in which traditional, popular, and non-Western musics have influenced the European and American traditions. This course is designed to expose the music major to a wide variety of musical styles, including the masterworks of European Classical Music, the uniquely American forms of ragtime, blues, jazz and musical theater, as well as rock and contemporary world music. Required of all Classical Division music majors; non-majors admitted with the permission of the Department. No prerequisites.

MUS 1100 Fundamentals of Music 3cr.
Offered each semester. An introduction to the rudiments of music theory including structure, notation, and written and aural skills.

MUS 1101 Theoretical Foundations I 6cr.
Comprised of three components - theory, musicianship and piano.

A foundations course in the fundamentals of music grammar, melodic writing and two-voice 16th century contrapuntal techniques, aural and keyboard skills, sight-singing and rhythm training.

MUS 1102 Theoretical Foundations II 6cr.
Prerequisite: Music 1101 or equivalent. Comprised of three components - theory, musicianship and piano. Principles of tonal music as exemplified by selected Baroque composers. Emphasis on melody, rhythm, texture, figured bass, functional harmony, counterpoint, dramatic techniques, and formal structures of the Baroque era, aural and keyboard skills, sight-singing and rhythm training.

MUS 1401 Applied Keyboard 3cr.
Private instruction (one hour per week).

MUS 1402 Applied Keyboard 3cr.
Private instruction (one hour per week).

MUS 1403 Applied Keyboard 2cr.
Private instruction (one hour per week).

MUS 1405 Piano Class 2cr.
Offered each semester. Class instruction in piano for music majors not majoring in piano. Two one-hour classes and six hours practice per week. These courses are intended for music majors with little or no previous piano training.

MUS 1406 Piano Class 2cr.
Offered each semester. Class instruction in piano for music majors not majoring in piano. Two one-hour classes and six hours practice per week. These courses are intended for music majors with little or no previous piano training.

MUS 1407 Piano Class 2cr.
Offered each semester. Class instruction in piano for music majors not majoring in piano. Two one-hour classes and six hours practice per week. These courses are intended for music majors with little or no previous piano training.

MUS 1408 Piano Class 2cr.
Offered each semester. Class instruction in piano for music majors not majoring in piano. Two one-hour classes and six hours practice per week. These courses are intended for music majors with little or no previous piano training.

MUS 1431 Applied Keyboard-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1432 Applied Keyboard-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1433 Applied Keyboard-Principal 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1501 Applied Voice 3cr.
Private instruction (one hour per week).

MUS 1502 Applied Voice 3cr.
Private instruction (one hour per week).

MUS 1503 Applied Voice 2cr.
Private instruction (one hour per week).

MUS 1505 Voice Class 2cr.
Fundamentals of voice production. Class instruction in correct breathing, tone production, and diction. These courses are intended for music majors with little or no previous voice training.

MUS 1506 Voice Class 2cr.
Fundamentals of voice production. Class instruction in correct breathing, tone production, and diction. These courses are intended for music majors with little or no previous voice training.

MUS 1507 Voice Class 2cr.
Fundamentals of voice production. Class instruction in correct breathing, tone production, and diction. These courses are intended for music majors with little or no previous voice training.

MUS 1508 Voice Class 2cr.
Fundamentals of voice production. Class instruction in correct breathing, tone production, and diction. These courses are intended for music majors with little or no previous voice training.

MUS 1511 Voice Class for Non-Music Majors 2cr.
Introduction to the fundamental principles of singing. Group instruction in voice production. Open to all University students.

MUS 1512 Voice Class for Non-Music Majors 2cr.
Prerequisites: MUS 1511 or equivalent and consent of department. Introduction to the fundamental principles of singing. Group instruction in voice production. Open to all University students. MUS1512 is a continuation of MUS 1511.

MUS 1531 Applied Voice-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1532 Applied Voice-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1533 Applied Voice-Principal 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1601 Applied Strings 3cr.
Private instruction (one hour per week).

MUS 1602 Applied Strings 3cr.
Private instruction (one hour per week).

MUS 1603 Applied Strings 2cr.
Private instruction (one hour per week).

MUS 1611 Classical Guitar for Non-Music Majors 2cr.
Group instruction in the fundamentals of classical guitar. Open to all University students. Students must have a classical guitar.

MUS 1612 Classical Guitar for Non-Music Majors 2cr.
Prerequisites: MUS 1611 or equivalent and consent of department. Group instruction in the fundamentals of classical guitar. Open to all University students. Students must have a classical guitar. MUS 1612 is a continuation of MUS 1611.

MUS 1631 Applied Strings-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1632 Applied Strings-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1633 Applied Strings-Principal 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1701 Applied Woodwind 3cr.
Private instruction (one hour per week).

MUS 1702 Applied Woodwind 3cr.
Private instruction (one hour per week).

MUS 1703 Applied Woodwind 2cr.
Private instruction (one hour per week).

MUS 1705 String Methods and Techniques 2cr.
A study of the instruments of the string family with an emphasis on their teaching methods and techniques. Designed for the instrumental education major.

MUS 1706 Woodwind Methods and Techniques 2cr.
A study of the instruments of the woodwind family with an emphasis on their teaching methods and techniques. Designed for the instrumental music major.

MUS 1707 Brass Methods and Techniques 2cr.
A study of the instruments of the brass family with an emphasis on their teaching methods and techniques. Designed for the instrumental music major.

MUS 1708 Percussion Methods and Techniques 2cr.
A study of the instruments of the percussion family with an emphasis on their teaching methods and techniques. Designed for the instrumental music major.

MUS 1711 Applied Brass 3cr.
Private instruction (one hour per week).

MUS 1712 Applied Brass 3cr.
Private instruction (one hour per week).

MUS 1713 Applied Brass 2cr.
Private instruction (one hour per week).

MUS 1721 Applied Percussion 3cr.
Private instruction (one hour per week).

MUS 1722 Applied Percussion 3cr.
Private instruction (one hour per week).

MUS 1723 Applied Percussion 2cr.
Private instruction (one hour per week).

MUS 1731 Applied Woodwind-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1732 Applied Woodwind-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1733 Applied Woodwind-Principal 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1741 Applied Brass-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1742 Applied Brass-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1743 Applied Brass-Principal 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1781 Applied Percussion-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1782 Applied Percussion-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1783 Applied Percussion-Principal 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 1900 Student Recital No credit 0cr.
Offered each semester. Prerequisite: audition with department. The study and performance of large ensemble jazz materials with emphasis on contemporary idioms. May be repeated for credit to a total of eight semester hours.

MUS 1901 Chamber Ensemble 1cr.
Prerequisite: consent of department. Intensive study of chamber music and other works for small ensembles. May be repeated for credit to a total of eight semester hours.

MUS 1902 University Jazz Band 1cr.
Offered each semester. Prerequisite: audition with department. The study and performance of large ensemble jazz materials with emphasis on contemporary idioms. May be repeated for credit to a total of eight semester hours.

MUS 1903 University Band 1cr.
Offered each semester and open to all University students with consent of department. Intensive study of traditional and modern repertoire for concert and marching band. May be repeated for credit to a total of eight semester hours. *May be used to fulfill the General Degree Requirements for arts.

MUS 1904 Privateer Chorus 1cr.
Offered each semester and open to all University students with consent of department. Study of choral music of all periods including preparation for public performance. May be repeated for credit to a total of eight semester hours.

MUS 1905 University Chorale 1cr.
Offered each semester. Open to all University students by audition. Study and performance of choral literature. Campus and tour performances. Three hours of class per week. May be repeated for credit to a total of eight semester hours.

MUS 1906 Chamber Singers 1cr.
Offered each semester. Open to all University students by audition. A small ensemble of mixed voices for the study and performance of choral music dating from 1500 to the present. May be repeated to a total of eight semester hours.

MUS 1907 Piano Accompaniment 1cr.
Prerequisite: consent of department. Guided experience in sight-reading, preparation and performance of accompaniments for vocal and instrumental performers. May be repeated for credit to a total of eight semester hours.

MUS 1908 Wind Ensemble 1cr.
Offered each semester. Prerequisite: audition with department. Study and performance of advanced repertoire for wind ensemble. May be repeated for credit to a total of eight semester hours.

MUS 1910 University Orchestra 1cr.
Offered each semester. Prerequisite: audition. Study and performance of orchestral repertoire. May be repeated for credit to a total of eight semester hours.

MUS 1950 Opera Theater 1cr.
Open to voice students or by consent of department. A workshop course especially designed for the coordination of music and acting with particular emphasis on training the singing actor. Coaching in operatic scenes and training in the basic principles of dramatic aspects of opera. Three hours of laboratory per week. May be repeated for credit to a total of eight semester hours.

MUS 2000 Field Research in the Arts 1-3cr.
(FTCA 2000, FA 2000, and MUS 2000 are cross-listed) Prerequisite: consent of department. Special research project in the arts involving field experience and study outside the city of New Orleans. Advance preparation for the project will include conference with

or lecture by the faculty and readings in the specific areas to be studied. The study trip will consist of attendance at a minimum of four theatrical or musical performances or a minimum of eight hours spent in visits to exhibits or museums for each hour of credit. A follow-up paper on a research topic inspired by the trip will be required. May be repeated for up to six hours of credit. Credit will be given for only FTCA 2000, FA 2000, or MUS 2000 for the same trip.

MUS 2001 Special Topics in Music 1-3cr.
Prerequisite: consent of department. Specific areas of interest will be studied under the direction of a faculty member. Topics may vary from semester to semester. This course may be repeated but total credit may not exceed six semester hours. Section number will correspond with credit to be earned.

MUS 2005 Introduction To Music Technology 3cr.
Prerequisite: MUS 1102 or equivalent. This course will provide an introduction to and hands-on use of the hardware and software contained in the Department of Music computer lab. Students will be trained in the use of the Finale music notation program to give them an effective method of notating their projects and assignments and a means to create virtual performances of their musical compositions through MIDI synchronization. Additionally, students will gain mastery of various audio editing programs in order to be able to convert their own finished projects to CD or MP3 format.

MUS 2101 Music Theory III 3cr.
Prerequisite: MUS 1102 or equivalent. Principles of tonal music as exemplified by selected Classic and Romantic composers. Emphasis on melody, rhythm, texture, modulation, functional and nonfunctional harmony, dramatic techniques, and formal structures of the Classic and Romantic eras.

MUS 2102 Music Theory IV 3cr.
Prerequisite: MUS 2101 or equivalent. Principles of tonal and atonal music as exemplified by selected 20th century composers. Emphasis on melody, rhythm, texture, harmony, counterpoint, color, dramatic techniques, and form structures of the 20th century.

MUS 2103 Advanced Musicianship 1cr.
Offered each semester. Continuation of MUS 1103 and 1104 coordinate with MUS 2101 and 2102. Two hours of class per week.

MUS 2104 Advanced Musicianship 1cr.
Offered each semester. Continuation of MUS 1103 and 1104 coordinate with MUS 2101 and 2102. Two hours of class per week.

MUS 2105 Techniques of Orchestration 2cr.
Prerequisite: MUS 1102 or equivalent. A study of writing for orchestral instruments singly, in choirs, and in full orchestral instrumentation. Particular emphasis will be placed on arranging selected piano compositions for various combinations of orchestral instruments.

MUS 2106 Class Composition 2cr.
Prerequisite: MUS 1102 or equivalent. A beginning study of the elements of composition. Particular emphasis will be placed on solving common technical problems and in preparing manuscripts for performance.

MUS 2107 Jazz Arranging Class 2cr.
Prerequisites: MUS 1003 1102 and 1406 or consent of department. A beginning study of the fundamentals of music notation instrumentation and theory as applied to the jazz idiom. To be taken concurrently with Music 2101.

MUS 2108 Jazz Arranging Class 2cr.
Prerequisite: MUS 2107 or consent of department. Continuation of MUS 2107 with increased emphasis on the completion of brief scoring projects. To be taken concurrently with MUS 2102.

MUS 2109 Jazz Harmony and Theory 3cr.
Prerequisites: MUS 1003 1102 and 1406 or consent of department. Introduction to the fundamentals of jazz harmony with emphasis placed on aural perception and keyboard interpretations of common chord progressions as they occur in the song-forms (A-B-A) and the blues.

MUS 2110 Jazz Harmony and Theory 3cr.
Prerequisite: MUS 2109 or consent of department. A continuation of MUS 2109 with increased emphasis placed on the study of harmonic progressions as found in the popular song forms and the blues and an introduction to the principals of chord substitution and reharmonization.

MUS 2201 History of Music 3cr.
Fall semester. Prerequisites: MUS 1102 and 1104. An historical survey of the art of music in the West from its tentative beginnings in Greek and Jewish music through the compositions of Beethoven.

MUS 2202 History of Music 3cr.
Spring semester. Prerequisites: MUS 1102 1104 and 2201 or consent of department. A continuation of MUS 2201 from the music of Schubert and Weber through the present.

MUS 2205 Jazz Profiles 3cr.
Prerequisite: MUS 1003 or consent of department. An historical study of the major jazz figures from the New Orleans period until the present day emphasizing the contributions of the principal innovators of each era. Intended for students enrolled in the Jazz Studies Performance and Arranging Emphases.

MUS 2302 French Diction in Singing 2cr.
Prerequisite: consent of department. A study of phonetic sounds of the French language to promote the ability to sing in French. No attempt made to develop knowledge of grammar or vocabulary.

MUS 2303 Italian Diction in Singing 2cr.
Prerequisite: consent of department. A study of phonetic sounds of the Italian language to promote the ability to sing in Italian. No attempt made to develop knowledge of grammar or vocabulary.

MUS 2304 German Diction in Singing 2cr.
Prerequisite: consent of department. A study of phonetic sounds of the German language to promote the ability to sing in German. No attempt made to develop knowledge of grammar or vocabulary. *May be used to fulfill the General Degree Requirements for arts.

MUS 2401 Applied Keyboard 3cr.
Private instruction (one hour per week).

MUS 2402 Applied Keyboard 3cr.
Private instruction (one hour per week).

MUS 2403 Applied Keyboard 2cr.
Private instruction (one hour per week).

MUS 2405 Advanced Piano Class 3cr.
Prerequisite: MUS 1408 or equivalent. Small group instruction for piano secondaries who need additional training. Course will emphasize functional skills at the keyboard. Two hours of class and nine hours of practice per week.

MUS 2406 Advanced Piano Class 3cr.
Prerequisite: MUS 1408 or equivalent. Small group instruction for piano secondaries who need additional training. Course will emphasize functional skills at the keyboard. Two hours of class and nine hours of practice per week.

MUS 2431 Applied Keyboard-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2432 Applied Keyboard-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2433 Applied Keyboard-Principal 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2501 Applied Voice 3cr.
Private instruction (one hour per week).

MUS 2502 Applied Voice 3cr.
Private instruction (one hour per week).

MUS 2503 Applied Voice 2cr.
Private instruction (one hour per week).

MUS 2505 Advanced Voice Class 3cr.
Prerequisite: MUS 1508 or equivalent. Continuation of Voice Class 1508. Small group instruction for voice secondaries. Further studies in vocal pedagogy and technique.

MUS 2506 Advanced Voice Class 3cr.
Prerequisite: MUS 1508 or equivalent. Continuation of Voice Class 1508. Small group instruction for voice secondaries. Further studies in vocal pedagogy and technique.

MUS 2507 Advanced Voice Class 3cr.
Prerequisite: MUS 1508 or equivalent. Continuation of Voice Class 1508. Small group instruction for voice secondaries. Further studies in vocal pedagogy and technique.

MUS 2531 Applied Voice-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2532 Applied Voice-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2533 Applied Voice 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2601 Applied Strings 3cr.
Private instruction (one hour per week).

MUS 2602 Applied Strings 3cr.
Private instruction (one hour per week).

MUS 2603 Applied Strings 2cr.
Private instruction (one hour per week).

MUS 2605 Jazz Keyboard Class 1cr.
Prerequisite: MUS 1406 or consent of department. Small group instruction for students in the Jazz Studies Arranging Emphasis. Introduction to the fundamentals of chord voicings and harmonic progressions in the jazz idiom.

MUS 2606 Jazz Keyboard Class 1cr.
Prerequisite: MUS 2605 or consent of department. Continuation of MUS 2605 emphasizing the fundamentals of chord voicings and harmonic progressions in the jazz idiom.

MUS 2631 Applied Strings-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2632 Applied Strings-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2633 Applied Strings-Principal 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2701 Applied Woodwind 3cr.
Private instruction (one hour per week).

MUS 2702 Applied Woodwind 3cr.
Private instruction (one hour per week).

MUS 2703 Applied Woodwind 2cr.
Private instruction (one hour per week).

MUS 2705 Jazz Improvisation 2cr.
Prerequisites: MUS 1102 and consent of department. A course in melodic improvisation designed to prepare the student with the theoretical background and improvisational techniques utilized in jazz performance. Students will be grouped according to their ability and experience.

MUS 2706 Jazz Improvisation 2cr.
Prerequisites: MUS 1102 and consent of department. A course in melodic improvisation designed to prepare the student with the theoretical background and improvisational techniques utilized in jazz performance. Students will be grouped according to their ability and experience.

MUS 2711 Applied Brass 3cr.
Private instruction (one hour per week).

MUS 2712 Applied Brass 3cr.
Private instruction (one hour per week).

MUS 2713 Applied Brass 2cr.
Private instruction (one hour per week).

MUS 2721 Applied Percussion 3cr.
Private instruction (one hour per week).

MUS 2722 Applied Percussion 3cr.
Private instruction (one hour per week).

MUS 2723 Applied Percussion 2cr.
Private instruction (one hour per week).

MUS 2731 Applied Woodwind-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2732 Applied Woodwind-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2733 Applied Woodwind-Principal 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2741 Applied Brass 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2742 Applied Brass 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2743 Applied Brass 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2781 Applied Percussion 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2782 Applied Percussion 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2783 Applied Percussion 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 2801 Applied Composition 3cr.
Prerequisite: MUS 2106 or consent of department. A study of the techniques of musical composition. Designed for the student whose applied area is composition. Special emphasis will be placed on the development of the student's individual style.

MUS 2802 Applied Composition 3cr.
Prerequisite: MUS 2106 or consent of department. A study of the techniques of musical composition. Designed for the student whose applied area is composition. Special emphasis will be placed on the development of the student's individual style.

MUS 2807 Intermediate Jazz Arranging 3cr.
Prerequisite: MUS 2108 or consent of department. Continuation of MUS 2108 with increased emphasis on the completion of more extended arrangements. To be taken concurrently with MUS 4101. Private or small group instruction.

MUS 2808 Intermediate Jazz Arranging 3cr.
Prerequisite: MUS 2807 or consent of department. Continuation of MUS 2807 with increased emphasis on the completion of more extended arrangements. To be taken concurrently with MUS 4102.

MUS 3099 Senior Honors Thesis 1-6cr.
Prerequisite: consent of Music Department and the Honors Program. Directed research under a Music faculty member culminating in a written thesis. Course may be repeated up to three consecutive semesters for a total of six credits.

MUS 3103 Marching Band Techniques 2cr.
The purpose of this course is to give the music education student the necessary skills to effectively design, organize, teach, and evaluate marching band shows and parade marching.

MUS 3104 Band Arranging 2cr.
Prerequisite: Music 4102 or equivalent. A study of band instrumentation including both transcription from other media and original composition. Two hours of lecture

MUS 3111 Conducting I 2cr.
Prerequisite: MUS 2102 or consent of department. Basic mechanics of conducting and introduction to elements of vocal conducting technique. Beat patterns, conducting theory, hand position, group vocal techniques, and rehearsal strategies are the primary foci.

MUS 3112 Conducting II 2cr.
Prerequisite: MUS 3111 or consent of department. Development of the basic conducting technique learned in MUS 3111 and introduction to instrumental conducting. Clarity of gestures, score reading and study, instrumental transposition, and rehearsal psychology/philosophy will be given primary emphases

MUS 3150 Music Theory Project 0cr.
Required of Music Theory and Composition majors who select theory as an emphasis. This project will either be written analysis of a major work or a study on an appropriate theoretical subject as approved by the theory and composition faculty. A faculty committee will grade the project on a pass-fail basis.

MUS 3250 Music History Project 0cr.
Required of music history majors. Written presentation, a research project subject to the approval of the music history faculty. A faculty committee will grade the project on a Pass-Fail basis.

MUS 3382 Materials and Methods of Teaching Vocal Music in the Elementary Classroom 3cr.
(EDCI 3382 and MUS 3382 are cross-listed) Prerequisites: EDCI 3100 and 3200 and consent of department. Consideration of methods and material in teaching vocal music in grades Pre-K through 6. Appropriate field experiences may be required.

MUS 3383 Materials and Methods of Teaching Instrumental Music in Elementary and Secondary Schools 3cr.
(EDCI 3383 and MUS 3383 are cross-listed) Prerequisites: EDCI 3100 and 3200 and consent of department. Consideration of methods and materials in teaching instrumental music. Appropriate field experiences may be required.

MUS 3384 Materials and Methods of Teaching Vocal Music in Secondary Schools 3cr.
(EDCI 3384 and MUS 3384 are cross-listed) Prerequisites: EDCI 3100 or 3200 and consent of department. Considerations of methods and materials in teaching vocal music in grades 7-12. Appropriate field experiences may be required.

MUS 3401 Applied Keyboard 3cr.
Private instruction (one hour per week).

MUS 3402 Applied Keyboard 3cr.
Private instruction (one hour per week).

MUS 3403 Applied Keyboard 2cr.
Private instruction (one hour per week).

MUS 3431 Applied Keyboard-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3432 Applied Keyboard-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3433 Applied Keyboard-Principal 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3451 Applied Keyboard 3cr.
Private instruction (one hour per week).

MUS 3452 Applied Keyboard 3cr.
Private instruction (one hour per week).

MUS 3453 Applied Keyboard 2cr.
Private instruction (one hour per week).

MUS 3501 Applied Voice 3cr.
Private instruction (one hour per week).

MUS 3502 Applied Voice 3cr.
Private instruction (one hour per week).

MUS 3503 Applied Voice 2cr.
Private instruction (one hour per week).

MUS 3531 Applied Voice-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3532 Applied Voice-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3533 Applied Voice-Principal 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3551 Applied Voice 3cr.
Private instruction (one hour per week).

MUS 3552 Applied Voice 3cr.
Private instruction (one hour per week).

MUS 3553 Applied Voice 2cr.
Private instruction (one hour per week).

MUS 3595 Academic Year Abroad: Special Topics in Music 3cr.
This course is only offered through UNO's Academic Year Abroad (AYA) in Innsbruck, Austria and can be repeated once for credit.

MUS 3601 Applied Strings 3cr.
Private instruction (one hour per week).

MUS 3602 Applied Strings 3cr.
Private instruction (one hour per week).

MUS 3603 Applied Strings 2cr.
Private instruction (one hour per week).

MUS 3605 Jazz Keyboard 1cr.
Prerequisite: MUS 2606 or consent of department. Continuation of MUS 2606. This course explores the use of new chord progressions and voicings in the jazz idiom with the objective of creating full-voiced arrangements for the keyboard.

MUS 3606 Jazz Keyboard 1cr.
Prerequisite: MUS 3605 or consent of department. Continuation of MUS 3605. This course explores the use of new chord progressions and voicings in the jazz idiom with the objective of creating full-voiced arrangements for the keyboard.

MUS 3631 Applied Strings-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3632 Applied Strings-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3633 Applied Strings-Principal 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3651 Applied Strings 3cr.
Private instruction (one hour per week).

MUS 3652 Applied Strings 3cr.

Private instruction (one hour per week).

MUS 3653 Applied Strings 2cr.
Private instruction (one hour per week).

MUS 3701 Applied Woodwind 3cr.
Private instruction (one hour per week).

MUS 3702 Applied Woodwind 3cr.
Private instruction (one hour per week).

MUS 3703 Applied Woodwind 2cr.
Private instruction (one hour per week).

MUS 3711 Applied Brass 3cr.
Private instruction (one hour per week).

MUS 3712 Applied Brass 3cr.
Private instruction (one hour per week).

MUS 3713 Applied Brass 2cr.
Private instruction (one hour per week).

MUS 3721 Applied Percussion 3cr.
Private instruction (one hour per week).

MUS 3722 Applied Percussion 3cr.
Private instruction (one hour per week).

MUS 3723 Applied Percussion 2cr.
Private instruction (one hour per week).

MUS 3731 Applied Woodwind-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3732 Applied Woodwind-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3733 Applied Woodwind-Principal 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3741 Applied Brass-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3742 Applied Brass-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3743 Applied Brass-Principal 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3751 Applied Woodwind 3cr.
Private instruction (one hour per week).

MUS 3752 Applied Woodwind 3cr.
Private instruction (one hour per week).

MUS 3753 Applied Woodwind 2cr.
Private instruction (one hour per week).

MUS 3761 Applied Brass 3cr.
Private instruction (one hour per week).

MUS 3762 Applied Brass 3cr.
Private instruction (one hour per week).

MUS 3763 Applied Brass 2cr.
Private instruction (one hour per week).

MUS 3771 Applied Percussion 3cr.
Private instruction (one hour per week).

MUS 3772 Applied Percussion 3cr.
Private instruction (one hour per week).

MUS 3773 Applied Percussion 2cr.
Private instruction (one hour per week).

MUS 3781 Applied Percussion-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3782 Applied Percussion-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3783 Applied Percussion-Principal 2cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 3801 Applied Composition 3cr.
Prerequisite: MUS 2106 or consent of department. A study of the techniques of musical composition. Designed for the student whose applied area is composition. Special emphasis will be placed on the development of the student's individual style.

MUS 3802 Applied Composition 3cr.
Prerequisite: MUS 2106 or consent of department. A study of the techniques of musical composition. Designed for the student whose applied area is composition. Special emphasis will be placed on the development of the student's individual style.

MUS 3911 Music Education Teaching Lab Ensemble 0cr.
Prerequisites: MUS 3111 and 3112, or concurrent enrollment. Offered each semester. Laboratory practice of rehearsal teaching skills, secondary instruments, and vocal ensemble techniques. Required of all music education students. One hour of laboratory each week. Must

be taken as preparation for MUS 3912. May be repeated for a total of two semesters. Pass-fail grading.

MUS 3912 Music Education Teaching Lab Ensemble 1cr.
Prerequisite: two semesters of MUS 3911. Offered each semester. Laboratory practice of rehearsal teaching skills, secondary instruments, and vocal ensemble techniques. Required of all music education students. One hour of laboratory each week. May be repeated for a total of two semesters. Pass-fail grading.

MUS 3950 Half Recital In Performance 0cr.
Presentation of a public recital of at least 25 minutes of actual playing duration. Content of the program must be similar to that normally included in professional recitals. A faculty committee will approve the program and grade the performance on a pass-fail basis.

MUS 3960 Half Recital in Composition No credit 0cr.
Required of music theory and composition majors who select composition as an emphasis. Presentation of a public recital of at least 25 minutes of actual musical duration. Content of the program will consist of compositions written during the student's compositional study. A faculty committee will approve the program and grade the recital on a Pass-Fail basis.

MUS 3990 Full Recital 0cr.
Presentation of a public recital of at least 50 minutes of actual playing duration. Content of program must be similar to that normally included included in professional recitals and must include works in several styles. A faculty committee will approve the program and grade the performance on a Pass-Fail basis.

MUS 4001 Special Topics In Music 1-3cr.
Prerequisite: consent of department. Specific areas of interest will be studied under the direction of faculty member. Topics may vary from semester to semester. This course may be repeated, but total credit may not exceed six semester hours. Section number will correspond with credit to be earned.

MUS 4101 Contrapuntal Techniques 2cr.
Prerequisite: MUS 2102 or equivalent. A study of the contrapuntal techniques from the 18th century until the present as exemplified by such composers as Bach, Mozart, Brahms, and Hindemith. Required of undergraduate students in the Composition-Theory emphasis. The course will be available as an elective for graduate students

MUS 4102 Twentieth Century Techniques 2cr.
Prerequisites: MUS 2102 or equivalent. A study of 20th century compositional techniques. The course is designed to provide the student with new and extended creative and expressive tools. Required of students in the Composition-Theory emphasis. The course will be available as an elective for graduate students.

MUS 4103 Digital Music Production 3cr.
Prerequisite: CSCI 1000 and consent of faculty. Must be able to demonstrate knowledge of basic computer protocol. This course provides exposure to computer-and synthesizer-based music production commonly used in the music industry. Students will be trained in the effective use of music synthesizers, as well as a variety of software programs which utilize MIDI (Musical Instrument Digital Interface) and audio-recording capabilities. This course will be helpful in teaching students how to notate their projects and assignments via the computer, provide a means to create virtual performances of their music compositions, and introduce techniques of digital music editing and film synchronization.

MUS 4105 Advanced Orchestration 3cr.
Prerequisites: MUS 2105 2106 or consent of department. A study of advanced orchestration techniques with an emphasis on late nineteenth and twentieth century practices.

MUS 4106 Audio Recording 3cr.
This course is an examination of the art and science of audio recording and an introduction to advanced recording systems. The curriculum will cover signal flow as it applies to recording, microphone characteristics and applications, use of hardware and software-based audio effects, synchronization formats, and other topics related to tracking, mixing , and mastering.

MUS 4109 Advanced Jazz Harmony and Theory 3cr.
Prerequisite: MUS 2110 or consent of department. An introduction to modal and polychordal harmonies with emphasis on analysis of extended form.

MUS 4110 Advanced Jazz Harmony and Theory 3cr.
Prerequisite: MUS 4109 or consent of department. A continuation of MUS 4109 with increased emphasis on the creation of "original" jazz compositions employing modalpolychordal harmonies and extended forms.

MUS 4202 Studies in Renaissance Music 3cr.
Prerequisites: MUS 2101 2102 2201 and 2202. A study of the development of western music from the Flemish School of Ockeghem and Obrecht through the Venetian School of Giovanni Gabrieli.

MUS 4203 Studies in Baroque Music 3cr.
Prerequisites: MUS 2101 2102 2201 and 2202. A study of the development of western music from the Nuove Musiche through the death of J. S. Bach.

MUS 4204 Studies in Music of the Classical Era 3cr.
Prerequisites: MUS 2101, 2102, 2201, and 2202,. An intensive study of the music of the eighteenth and early nineteenth centuries, beginning with the emergence of the galant style and ending with the music of Beethoven's last period.

MUS 4205 Studies in Music of the Romantic Era 3cr.
Prerequisites: MUS 2101 2102 2201 and 2202. An intensive study of the music of the nineteenth century beginning with the operas of Weber and ending with Mahler and the earlier works of Richard Strauss.

MUS 4206 Twentieth Century Music 3cr.
Prerequisites:MUS 2101 2102 2201 and 2202. An intensive study of the music of the modern period from Debussy to the present.

MUS 4291 Seminar in Music History 3cr.
Prerequisites: MUS 2101 2102 2201 and 2202 or the equivalent. An intensive study of a limited aspect of music history through guided individual research and presentation of findings. Topic will vary from semester to semester. Course may be taken for credit three times.

MUS 4310 Vocal Pedagogy 2cr.
Prerequisite: consent of department. A study of vocal teaching techniques including anatomy of vocal tract, physiological process and acoustical properties. Two hours of lecture and one hour of laboratory each week

MUS 4311 Piano Pedagogy 2cr.
Prerequisite: MUS 2402 or equivalent. An examination and discussion of piano teaching materials and methods with emphasis on the elementary level. Course will include supervised teaching and demonstration classes. Two hours of lecture and one hour of laboratory each week.

MUS 4312 Instrumental Music Pedagogy 2cr.
Prerequisite: Consent of the department. An introduction to the methods and materials for teaching instrumental music for the performance major. This course is designed to provide the instru-

mental music performance major with the skills and knowledge necessary for success as a studio teacher and clinician. Two hours of lecture and one hour of laboratory each week. Required of all undergraduate Classical division instrumental performance majors.

MUS 4705 Advanced Jazz Improvisation 2cr.
Prerequisite: MUS 2706 or consent of department. A continuation of MUS 2706 with the objective of developing a personal style. Performances in the environment of the small combo with students grouped according to experience.

MUS 4706 Advanced Jazz Improvisation 2cr.
Prerequisite: MUS 4705 or consent of department. A continuation of MUS 4705 that focuses on the skills needed to achieve a personal style as an improvisor within the jazz context. Performances in both small combos and large ensembles.

MUS 4801 Applied Composition 3cr.
Prerequisite: MUS 3802 or equivalent. Applied composition with an emphasis on large-scale works.

MUS 4802 Applied Composition 3cr.
Perquisite: MUS 4801 or equivalent. Applied composition with an emphasis on large-scale works.

MUS 4807 Jazz Arranging/Composition 2cr.
Prerequisite: MUS 2110 or consent of department. A study of composing and arranging techniques for both small and large ensembles.

MUS 4808 Advanced Jazz Arranging/Composition 3cr.
Prerequisite: MUS 4807 or consent of department. Continuation of MUS 3807 with emphasis on both arrangements and original compositions for the larger ensembles. Private or small group instruction.

MUS 4810 Piano Repertoire: Renaissance-Classical 2cr.
Prerequisite: consent of department. A general survey of the solo piano repertoire from the period preceding Bach through the Classical period. Designed to acquaint the keyboard major with literature available for performance.

MUS 4811 Piano Repertoire: Romantic-Contemporary 2cr.
Prerequisite: consent of department. A general survey of the solo piano repertoire of the Romantic and Contemporary periods. Designed to acquaint the keyboard major with literature available for performance

MUS 4813 German Art Song Repertory 2cr.
Prerequisite: consent of department. A study of the history, interpretation and poetic content of the art song in German from the Baroque period to the present. Designed to acquaint the vocal major with the literature available for performance.

MUS 4814 French Art Song Repertory 2cr.
Prerequisite: consent of department. A study of the history, interpretation, and poetic content of the art song in French from the Baroque period to the present. Designed to acquaint the vocal major with the literature available for performance.

MUS 4815 Italian Art Song Repertory 2cr.
Prerequisite: consent of department. A study of the history, interpretation, and poetic content of the art song in Italian from the Baroque period to the present. Designed to acquaint the vocal major with the literature available for performance.

MUS 4816 English Art Song Repertory 2cr.
Prerequisite: consent of department. A study of the history, interpretation, and poetic content of the Art Song in English from the Baroque period to the present. Designed to acquaint the vocal major with the literature available for performance.

MUS 4818 Seminar in Choral Repertory 3cr.
Prerequisites: MUS 2102 and 2201-2202 or consent of department. A survey of the monuments of choral repertory and an examination of the practical and philosophical criteria necessary for appropriate repertoire selection through the use of readings, listening assignments, and selected score preparations. Required for vocal music education majors.

MUS 4900 Internship in Music 3cr.
Offered in the fall and spring semesters. Prerequisite: consent of Department. Each semester the Department makes available a limited number of internships with music organizations, businesses, and other music-related agencies. Interns usually work 12 hours a week at times mutually agreeable to the individual and the agency. In addition, interns must attend discussion sessions on campus and complete written assignments. Both the agency supervisor and the course instructor will evaluate the intern's work.

MUS 4901 Chamber Ensemble 1cr.
Prerequisite: consent of department. Intensive study of advanced chamber music and other works for small ensembles. In addition to participation in the ensemble, students will be assigned extra duties of a responsible nature such as coaching, conducting extra rehearsals, solo work, etc. A maximum of three hours credit in ensembles may be applied toward the graduate degree.

MUS 4902 University Jazz Band 1cr.
Prerequisite: consent of department. The study and performance of large ensemble jazz materials with emphasis on contemporary idioms. In addition to participation in the ensemble, students will be assigned extra duties of responsible nature, such as conducting sectional rehearsals, solo work, assistant conductor, etc. A maximum of three hours credit in ensembles may be applied toward a graduate degree.

MUS 4903 University Band 1cr.
Offered each semester and open to all students with consent of department. Intensive study of traditional and modern repertoire for concert and marching band. In addition to participation in the ensemble, students will be assigned extra duties such as section leading, conducting sectional rehearsals, and solo work. A maximum of three hours credit in ensembles may be applied toward a graduate degree.

MUS 4904 Privateer Chorus 1cr.
Offered each semester and open to all students with consent of department. Study of choral music of all periods, including preparation for public performance. In addition to participation in the ensemble, students will be assigned extra duties such as section leading, conducting sectional rehearsals, and solo work. A maximum of three hours credit in ensembles may be applied toward a graduate degree.

MUS 4905 University Chorale 1cr.
Offered each semester and open to all students by audition. Study and performance of choral literature. Campus and tour performances. In addition to participation in the ensemble, students will be assigned extra duties such as section leading, conducting sectional rehearsals, and solo work. A maximum of three hours credit in ensembles may be applied toward a graduate degree.

MUS 4906 Chamber Singers 1cr.
Offered each semester and open to all students by audition. A small ensemble of mixed voices for the study and performance of choral music dating from 1500 to the present. In addition to participation in the ensemble, students will be assigned extra duties such as section leading, conducting sectional rehearsals, and solo work. A maximum of three hours credit in ensembles may be applied toward a graduate degree

MUS 4907 Piano Accompaniment 1cr.
Prerequisite: consent of department. Guided experience in sight-reading, preparation, and performance of advanced accompaniments for vocal and instrumental performers. A maximum of three hours credit in ensembles may be applied toward a graduate degree.

MUS 4908 Wind Ensemble 1cr.
Offered each semester. Prerequisite: consent of department. Study and performance of advanced repertoire for wind ensemble. In addition to participation in the ensemble, students will be assigned extra duties of a responsible nature such as coaching, conducting extra rehearsals, solo work, etc. A maximum of three hours credit in ensembles may be applied toward a graduate degree.

MUS 4909 University Orchestra 1cr.
Offered each semester. Prerequisite: audition. Study and performance of orchestral repertoire. A maximum of three hours credit in ensembles may be applied toward a graduate degree.

MUS 4910 University Orchestra 1cr.
Offered each semester. Prerequisite: audition. Study and performance of orchestral repertoire. A maximum of three hours credit in ensembles may be applied toward a graduate degree.

MUS 4950 Opera Theater 1cr.
Prerequisite: consent of department. A workshop course especially designed for the coordination of music and acting with particular emphasis on training the singing actor. Coaching in operatic scenes and training in the basic principles of dramatic aspects of opera. In addition to participation in the ensemble, extra duties of a responsible nature will be assigned. A maximum of three hours credit in ensembles may be applied toward a graduate degree.

MUS 6000 Directed Independent Study 1-3cr.
Prerequisite: consent of department. Independent study in the graduate student's area of specialization, under the direction of a designated member of the graduate faculty. Credit is only applicable toward elective requirement. Total credit is limited to nine hours.

MUS 6001 Directed Independent Study 1-3cr.
Prerequisite: consent of department. Independent study in the graduate student's area of specialization, under the direction of a designated member of the graduate faculty. Credit is only applicable toward elective requirement. Total credit is limited to nine hours.

MUS 6002 Directed Independent Study 1-3cr.
Prerequisite: consent of department. Independent study in the graduate student's area of specialization, under the direction of a designated member of the graduate faculty. Credit is only applicable toward elective requirement. Total credit is limited to nine hours.

MUS 6010 A Music Overview for Arts Administrators 3cr.
Prerequisite: admission to the M.A. administration program or consent of department. Not for credit toward a graduate degree in music. A nonintensive survey of music history with emphasis on formation of the current concert, opera, and ballet repertory, and an examination of the various artistic and economic aspects of the professional presentation of this repertory in public performance.

MUS 6100 Graduate Theory in Performance 3cr.
Prerequisites: MUS 4101 and 4102 or consent of department. This course is designed to demonstrate practical usage of theoretical ideas in musical performance.

MUS 6101 Analytical Studies-Baroque Classical 3cr.
A detailed study of selected major works of the Baroque and Classical periods

MUS 6102 Analytical Studies-Romantic Twentieth Century 3cr.
A detailed study of selected major works of the Romantic period and the Twentieth Century will be the basis of this study.

MUS 6104 Theory Pedagogy 3cr.
Prerequisite: consent of department. Prerequisite: MUS 6101 or 6102. An examination and discussion of music theory teaching materials and methods with an emphasis on college-level instruction.

MUS 6105 Eighteenth Century Polyphonic Techniques 3cr.
Prerequisite: MUS 4101 or equivalent. A detailed study of specific polyphonic techniques.

MUS 6111 Seminar in Choral Conducting 3cr.
Prerequisites: Consent of department and MUS 3111 - 3112 or equivalent. An advanced course in the interpretation of choral literature with special attention given to conducting technique, rehearsal problems and their solutions, and score preparation. Laboratory experience will be provided. May be repeated once for credit by students with choral conducting emphasis.

MUS 6112 Seminar in Instrumental Conducting 3cr.
Prerequisite: Consent of department and MUS 3111 - 3112 or equivalent. An advanced course in the interpretation of instrumental literature with special attention given to conducting technique, rehearsal problems and their solutions, and score preparation. Laboratory experience will be provided. May be repeated once for credit by students with instrumental conducting emphasis.

MUS 6191 Seminar in Music Theory 3cr.
Prerequisite: consent of department MUS 6101 or 6102. An intensive study of a limited aspect of music theory through guided research and presentation of findings. Topic will vary from semester to semester. Course may be taken three times.

MUS 6200 Music Research Methods and Materials 3cr.
Prerequisite: Consent of department. This is a writing-intensive course designed to help graduate students develop skills in music research and in the various forms and styles of academic and professional writing in music. The major goal of this course is to prepare students for the intellectual challenges of graduate academic work, including research papers and comprehensive examinations, and for the professional music market and industry. Students will explore the various print and electronic music research resources and engage in numerous writing and research projects.

MUS 6291 Seminar in Music History 3cr.
An intensive study of a limited aspect of music history through guided individual research and presentation of findings. Topic will vary from semester to semester. Course may be taken three times.

MUS 6292 Music in 20th Century America 3cr.
This course addresses the growth of European Classical music, jazz, and the rise of popular music in the United States from the era of Caruso and Toscanini through the techno-rap of the 1990s. Particular attention is paid to the manner in which 20th century American culture has shaped attitudes about music: how radio, the phonograph, television and the internet have influenced the music that Americans heard, and how these developments have altered their understanding of music during the 20th century. Intended for both Classical and Jazz Division graduate students; Others admitted with the permission of the department. No prerequisites.

MUS 6300 Seminar in Jazz History 3cr.
Prerequisite: MUS 2205 or consent of department. A focused study of the music of a single contributor or related group of contributors selected from the major innovators in jazz history. Topic will vary from semester to semester.

MUS 6310 Jazz Research & Discography 3cr.
Prerequisite: MUS 2205. or consent of department. An advanced study of jazz research materials and methodology with an emphasis on jazz discography.

MUS 6391 Advanced Seminar in Choral Music 3cr.
Prerequisite: consent of department or 4818. An intensive study focusing on a selected topic in choral music through guided research and classroom discussion. Topic will vary from semester to semester. Course may be taken three times.

MUS 6401 Applied Keyboard 3cr.
Private instruction (one hour per week).

MUS 6402 Applied Keyboard 3cr.
Private instruction (one hour per week).

MUS 6431 Applied Keyboard-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 6432 Applied Keyboard-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 6501 Applied Voice 3cr.
Private instruction (one hour per week).

MUS 6502 Applied Voice 3cr.
Private instruction (one hour per week).

MUS 6531 Applied Voice-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 6532 Applied Voice-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 6601 Applied Strings 3cr.
Private instruction (one hour per week).

MUS 6602 Applied Strings 3cr.
Private instruction (one hour per week).

MUS 6631 Applied Strings-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 6632 Applied Strings-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 6701 Applied Woodwinds 3cr.
Private instruction (one hour per week).

MUS 6702 Applied Woodwinds 3cr.
Private instruction (one hour per week).

MUS 6711 Applied Brass 3cr.
Private instruction (one hour per week).

MUS 6712 Applied Brass 3cr.
Private instruction (one hour per week).

MUS 6721 Applied Percussion 3cr.
Private instruction (one hour per week).

MUS 6722 Applied Percussion 3cr.
Private instruction (one hour per week).

MUS 6731 Applied Woodwinds-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 6732 Applied Woodwinds-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 6741 Applied Brass-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 6742 Applied Brass-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 6781 Applied Percussion-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 6782 Applied Percussion-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 6800 Music Research and Technology 3cr.

MUS 6801 Applied Composition 3cr.
Private instruction (one hour per week).

MUS 6802 Applied Composition 3cr.
Private instruction (one hour per week).

MUS 6831 Applied Composition-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 6832 Applied Composition-Principal 3cr.
Private instruction (one hour per week) or small group instruction (two hours per week).

MUS 6900 Graduate Colloquium 0cr.
A forum to discuss problems common to all musical disciplines and to seek creative solutions through dialogue within the academic community. Required of all graduate students. Will be graded as satisfactory or unsatisfactory.

MUS 6950 Half Recital 1cr.
Presentation of a public recital of at least 30 minutes of actual playing duration. Content of the program must be similar to that normally included in professional recitals. A faculty committee will approve the program and grade the performance on a Pass-Fail basis.

MUS 6990 Graduate Recital 3cr.
Presentation of a public recital of at least 60 minutes of actual playing duration. Content of the program must be similar to that normally included in professional recitals and must include works in several styles. A faculty committee will approve the program and grade the performance on a Pass-Fail basis.

MUS 7000 Thesis Research 1-9cr.
To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

MUS 7040 Examination or Thesis Only No credit 0cr.
Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

Naval Architecture and Marine Engineering

NAME 1151 Introduction to Naval Architecture and Marine Engineering 3cr.
Prerequisites: MATH 2107. An overview of the Maritime Industry, marine transportation systems, maritime organizations; types and purposes of commercial and naval ships, advanced marine vehicles and floating offshore structures, basics of ship building, operation, safety, maintenance and environmental protection; various disciplines of naval architecture; introduction to major ship systems. Includes generation and interpretation of ship drawings, technical drawings of components and machinery. Training in hand sketch-

ing and 2-D computer-aided design software. Two hours of lecture and three hours of laboratory.

NAME 2151 Introduction to Marine Design and Construction 3cr.
Prerequisites: MATH 2111 or 2108, NAME 1151. Basic concepts of marine hydrostatics, resistance and propulsion, power systems, and seaway dynamics.

NAME 2160 Form Calculations and Stability 3cr.
Prerequisites: ENCE 2350 and NAME 2151. Lines plan; static stability, hydrostatic curves, determination of areas, volumes, displacement; buoyancy of damaged vessels and stability, launching of ships, towing of off-shore platform structures and their emplacement.

NAME 3091 Naval Architecture Design Project 3cr.
Prerequisites: Senior standing and consent of school. Individual or team study and evolution of a project involving engineering design, synthesis of systems in naval architecture. A comprehensive written report is required.

NAME 3092 Marine Engineering Design Project 3cr.
Prerequisites: Senior standing and consent of school. Individual or team study and evolution of a project involving engineering design, synthesis of systems in marine engineering. A comprehensive written report is required.

NAME 3093 Special Problems in Naval Architecture 1cr.
Prerequisite: Junior standing in engineering. Seminar, independent study, and research participation in naval architecture.

NAME 3094 Special Problems in Naval Architecture 1cr.
Prerequisite: Junior standing in engineering. Seminar, independent study, and research participation in naval architecture.

NAME 3095 Special Problems in Marine Engineering 1cr.
Prerequisite: Junior standing in engineering. Seminar, independent study, and research participation in marine engineering.

NAME 3096 Special Problems in Marine Engineering 1cr.
Prerequisite: Junior standing in engineering. Seminar, independent study, and research participation in marine engineering.

NAME 3120 Ship Hull Strength 4cr.
Prerequisite: ENCE 2351, MATH 2221. Longitudinal strength, simple beam theory, trochoidal wave and Smith correction; weight, buoyancy, load, shearing force and bending moment curves; midship section modulus; composite hull girder; transverse strength; strain energy and moment distribution methods; torsional strength; torsion of thin-walled, open sections; torque distribution; torsional loads; the use of classification society rules in the mid-ship section. Three hours of lecture and three hours of laboratory.

NAME 3130 Marine Engineering I (Power Systems) 4cr.
Prerequisites ENME 3770 and credit or registration in ENME 3720. Marine diesel engines, gas turbines, their operating characteristics, performance and environmental limitations; main reduction gears, electric power generation and electric propulsion; engine-propeller matching, propeller characteristics, centrifugal and positive displacement pumps, cavitation, heat exchangers, valves, piping design, and auxiliary systems. Diesel engine selection for a given application and arrangement, determination of fuel requirements, development and sizing of a selected system for diesel engines. Three hours of lecture and three hours of laboratory.

NAME 3150 Ship Resistance and Propulsion 4cr.
Prerequisites: Mechanical Engineering 3720 with NAME 2160 as a co-requisite. Ship resistance; dimensional analysis and similitude; model testing extrapolation; propulsion systems; propellers and their interaction with the hull; cavitation; super cavitating propellers; special craft, such as surface effect ships, submarines, and hydro-foils; and optimization. Three hours of lecture and three hours of laboratory.

NAME 3160 Off-Shore Structure and Ship Dynamics 4cr.
Prerequisites: MATH 2314, MATH 2221, ENCE 2351, ENME 3720, ENME 2750, and credit or registration in NAME 2160. Theory of ship and off-shore structure motions in response to ocean waves free vibration of single and multi degree of freedom systems; simple harmonic; general period, and random forced vibrations; transients; off-shore structure oscillations; the dynamics of launching and platform assembly; hull and propeller vibrations maneuverability; and design applications. Three hours of lecture and three hours of laboratory.

NAME 3171 Marine Design Methods 4cr.
Prerequisites: NAME 2160 and credit or registration in NAME 3150 or NAME 4154. Design spiral; Selection of principal dimensions, arrangement drawings, lines plan development, 3D-modeling, CAD-CAM; Hydrostatic and stability calculations; Resistance, propulsion and seakeeping estimates; Economical and environmental assessment; Structural design. Two hour lecture and one three-hour laboratory per week.

NAME 3900 Senior Honors Thesis 1-6cr.
Prerequisites: admission to the Honors Program and consent of the director of the Honors Program and the chair of the school. Senior-level research and/or design project in Naval Architecture and Marine Engineering. Thesis and oral examination required. May be repeated for credit with total hours not to exceed six.

NAME 4095 Special Topics in Marine Engineering 2cr.
Course may be taken for credit three times.

NAME 4096 Special Topics in Naval Architecture 3cr.
Prerequisite: Junior standing in engineering. May be taken for credit three times. No student may earn more than nine hours degree credit in Naval Architecture and Marine Engineering 4096 and 4097.

NAME 4097 Special Topics in Marine Engineering 3cr.
Prerequisite: Junior standing in engineering. Courses may be taken for credit three times. No student may earn more than nine hours degree credit in NAME 4097.

NAME 4120 Ship Structural Analysis and Design 3cr.
Prerequisite: NAME 3120. Review of longitudinal strength; principal stress distributions and stress trajectories; local strength analysis; panels under lateral load; columns and stanchions; panels in buckling under uniform edge compression loading and panels under shear and combination loading; rational ship section design synthesis based on stress and loading hierarchy; primary, secondary, and tertiary stresses as criteria of strength in ship structural design, including grillage aspects.

NAME 4121 Analysis and Design of Floating Offshore Structures 3cr.
Prerequisite: NAME 2160. Design and analysis of floating offshore platforms in general. Unsteady hydrodynamics, linear and nonlinear water waves, prediction of wave forces on large and small bodies. Fluid pressure forces on moving bodies using relative motion approach and radiation/diffraction approach. Analysis and prediction of random waves and vessel response using spectral methods. Additional topics such as mooring analysis as time permits.

NAME 4122 Introduction to Marine Composites 4cr.
Prerequisite: NAME 3120. Composite materials are introduced presenting their classification, fundamental characteristics, and main advantages and disadvantages. Present and future applications within the marine industry are discussed together with the materials most commonly employed and available manufacturing

methods. Elements of the mechanics of both laminate and sandwich topologies are analyzed. Additional topics cover their performance characteristics, failure, maintenance, repair, testing and regulatory aspects are. Three hours of lecture and three hours of laboratory.

NAME 4130 Marine Engineering II 3cr.
Spring and fall semesters. Prerequisite: NAME 3130. A study of ship propulsion systems, including waste heat utilization, availability, diesel engine performance, compressible pipe flow, shafting alignment, machinery vibration, and torsional vibration analysis.

NAME 4131 Reliability, Availability, and Maintenance of Engineering Systems 3cr.
(NAME 4131, ENME 4734, and ENEE 4131 are cross-listed) Prerequisite: MATH 2115. Review of probability and statistics; analytical stochastic models for component and system failures; strategies for inspection, maintenance, repair and replacement. Introduction to fault-tree and event-tree analysis; frequency and duration techniques; Markov models; and case studies.

NAME 4132 Management of Ship Life Cycle 3cr.
Phases of ship life cycle, the economics of costs versus benefits, qualitative and quantitative analysis of marine systems, ship life cycle cost elements and total cost of ownership, systems engineering process modeling, ship design, production, maintenance and operation processes, decision making under uncertainty, databases, dynamic programming, risk-based decision making, management of human and organization error in ship operations concurrent engineering.

NAME 4133 Ship Production 3cr.
Prerequisite: Junior standing or consent of department. An examination of the shipbuilding industry and ship construction techniques is provided including analysis of the market and management theory for shipyards, product work breakdown structure, modular methodologies, manufacturing methods, outfitting and painting techniques, shipyard layout and organization, planning/scheduling, and accuracy/quality assurance. Emphasis is placed on welding and lean six sigma practices.

NAME 4141 Curved Surface Design 3cr.
Prerequisites: MATH 2112 and CSCI 1201. Computer-aided design of curved surfaces; wire-frame outlines of surface; boundary conditions; surface patches; geometric properties of surface; and smoothness.

NAME 4142 Solid Modeling 3cr.
Prerequisites: MATH 2112 and CSCI 1201. Computer-aided design of mechanical piece parts and assemblies of parts; a high-level language for modeling parts and assemblies; dimensioning and tolerancing; and the mathematics that underlies solid models and computer graphics.

NAME 4151 Small Craft Design 4cr.
Prerequisite: Credit or registration in NAME 3120. Case study of a 60-foot motor boat design, Planning theory, trim, lift and drag in planning. Use of standard series, hydrofoil vessel performance calculations, sea keeping, hull structure, hull materials, powering using supercavitating propellers or pump-jet. Team Design project required for all students. Three hours of Lecture and three hours of Laboratory.

NAME 4160 Ship Hydrodynamics II 3cr.
Spring and fall semesters. Prerequisite: NAME 3150. A study of ship hydrodynamic problems in the areas of viscous fluid motion, ideal fluid flow, two-dimensional hydrofoils, three-dimensional foils as well as propeller theory.

NAME 4162 Offshore Structures and Ship Dynamics II 4cr.
Prerequisites: NAME 3150 NAME 3160 and MATH 2115. Linear oscillatory motion of floating bodies (Ships and Offshore Structures) due to water waves. Vibration theory, unsteady ideal flow theory, water wave theory, and linear ship motions theory. Prediction of ship platform motion in regular and irregular waves. Developments in hydroelasticity, maneuvering, and nonlinear ship motion. In addition a laboratory experience will allow the students to compare theoretical and computer predicted motions with measured motions in the wave/tow tank. A laboratory component is also included in the course.

NAME 4170 Marine Design 3cr.
Prerequisites: ENGL 2152, NAME 3130, NAME 3171, either NAME 3150 or NAME 4154, and credit or registration in NAME 3120. Preliminary ship and offshore structures design to meet owner's general, environmental, and economical requirements; principal dimensions, form, power requirements and stability; outfitting; structural design; preparation of preliminary design drawings. Two hours of lecture and one three-hour laboratory per week. Not for graduate credit.

NAME 4171 Admiralty Law for Engineers 2cr.
Prerequisites: consent of department and Senior standing in engineering or equivalent. An introduction to legal problems which confront engineers in marine design, construction, and operation. Applies to river and ocean transport and offshore production.

NAME 4175 Marine Design Project 3cr.
Prerequisite: Credit or registration in NAME 3160, NAME 4170. Completion of the project started in the prerequisite course; the preliminary design of a ship or other marine system component: hull, machinery, or an off-shore platform. Six hours of laboratory per week.

NAME 4177 Advanced Marine Vehicle Design 3cr.
Prerequisite: Credit or registration in NAME 3150. A study of advanced marine vehicle design for high-speed transport; transport factor evaluation of high-speed craft, design of high multi-hull crafts, surface effect ships, hybrid vessels, and wing in ground craft. 3 units min/ 3 units max, Lecture

NAME 4181 Materials for Marine Design 3cr.
Prerequisite: CHEM 1017 and PHYS 1061. Elements of materials science and of the corrosion of metals; effects of marine environments on construction materials; and methods for selecting materials in the design of marine structures and marine equipment.

NAME 4182 Advanced Topics in Ship Structures 3cr.
Prerequisite: NAME 4120 or consent of department. Energy methods applied to elements of ship structure; principles of virtual work; plasticity: static collapse of beams and plates; application of plasticity to various ship structural topics: slamming ice strengthening collision protection transverse web frame; ultimate strength of ship girder; probabilistic aspects; distribution curves of capability and demand; combination of varying stresses of different frequencies - quasistatic and vibratory stresses; probabilistic design of the hull girder to an acceptable risk of failure.

NAME 4723 Ocean and Coastal Engineering 3cr.
(ENCE 4723, ENME 4723, and NAME 4723 are cross-listed). Prerequisite: ENME 3720 or ENCE 3318 or consent of the department. Elements of wind and wave generation and forecasting, tidal phenomena, hurricanes, storm surge, tsunamis, interaction of waves and wind with coastal and offshore structures, coastal and estuary processes. Design aspects of various topics are discussed and analyzed: e.g., offshore structures, spar buoys, underwater pipelines, oil production risers, coastal protection, mooring cables, vortex shed-

ding, gas flares, beach formation, harbor resonance, structure resonance, etc. A design project is required.

NAME 4728 Introduction to Computational Fluid Dynamics 3cr.
(NAME 4728 and ENME 4728 are cross-listed.) Prerequisites: Mechanical Engineering 3720. Classification of partial differential equations, mathematical description of fluid flow phenomena. Survey of various discretizaiton methods for the equations of fluid mechanics, including finite difference, finite volume and weighted residual methods. Basic algorithms for solving fluid mechanics problems. Introduction to grid generation. Application of existing CFD codes to practical engineering problems.

NAME 4735 Reliability in Engineering Design 3cr.
Prerequisite: ENME 3020 or consent of department. Probabilistic approach to design and analysis of engineering problems. Statistical methods include point and interval estimation, tests of hypotheses, functions of random variables, and reliability analysis.

NAME 6080 Systems Engineering 3cr.
Prerequisite: Consent of department. Introduction to the fundamentals of systems engineering. Presents a holistic approach to principles, methods, and tools for system engineering as applied to complex systems development. Systems engineering includes the analysis of complexity through decomposition and re-integration, the prediction of emergent properties, writing and providing traceability for requirements, methods for uncertainty and risk analysis as applied to cost and technology, and evolution of design and operations. Focuses on the conceptual phase of product definition, including technical, economic, market, environmental, regulatory, legal, manufacturing, and societal factors. Various standards, guides, and handbooks are applied to establish a basis for synthesis to a system domain.

NAME 6081 Systems Architecture 3cr.
Prerequisite: Consent of department. Encompasses the principles and methods for technical system architecture and architecting. Focuses on understanding and using architecting processes for complex systems throughout their life cycle from needs, design, production, and operations through disposal and recycling. Methods applied to the resolution of ambiguity and analysis of complexity in the development of boundaries, goals, requirements, and interfaces through decomposition and mapping of function to form, as well as functional and physical architectures descriptions and their external relationships. Includes the use of creative processes, including TRIZ and other methods, in the development of system architecture. The use of heuristics and non-analytic factors, as well as formal modeling, prototyping, and simulation methods. Includes the role, responsibilities, and deliverables of the system architect. Industrial and government case histories and studies are presented by speakers and faculty, as appropriate, based on various examples.

NAME 6093 Independent Study in Naval Architecture 1-6cr.
Individual projects in selected fields of naval architecture. Independent work under the direction of a faculty member on a subject of mutual interest. A written report will be required. Course by be repeated for credit but no more than a total of six credit hours may be applied toward a degree. Section number will correspond with credit to be earned.

NAME 6097 Advanced Special Topics in Marine Engineering 3cr.
Prerequisite: consent of school. Special lecture on subjects of current interest in marine engineering. May be taken for credit three times. No student may earn more than nine hours of degree credit in courses Naval Architecture and Marine Engineering 4096, 4097, 6097, 6098.

NAME 6098 Advanced Special Topics in Marine Engineering 3cr.
Prerequisite: consent of school. Special lecture on subjects of current interest in marine engineering. May be taken for credit three times. No student may earn more than nine hours of degree credit in courses Naval Architecture and Marine Engineering 4096, 4097, 6097, 6098.

NAME 6121 Marine Structural Vibrations 3cr.
Prerequisite: Naval Architecture and Marine Engineering 3160 or consent of department. This course focuses on vibration of ship and offshore structures including linear, nonlinear, and random vibrations and dynamic problems (slamming). The problems of vibration of plates and shells of ship hulls are also considered.

NAME 6122 Composite Structures 3cr.
Prerequisites: ENCE 2351, MATH 2221. Composite materials used in engineering; calculation of characteristics of materials; theory of composite structures; strength, buckling, and vibration of composite plates and shells; thermal stresses; elements of the mechanics of sandwich structures.

NAME 6125 Advanced Offshore Engineering 3cr.
Prerequisite: NAME 4121 or consent of department. This course will continue the study of offshore engineering begun in the introductory course. This course will review unsteady hydrodynamics, linear water waves, Morrison's equation approach to wave loading, and statistical description of ocean waves. Following will be a discussion of nonlinear water waves, diffraction and slowdrift forces. An advanced treatment of offshore platforms motions including the relative motion approach and numerical water wave diffraction and radiation methods. Also studied will be statistical prediction of short and long term extremes, reliability based design and viscous forces on cylinders. Additional topics as time permits.

NAME 6141 Curved Surface Analysis 3cr.
Prerequisite: NAME 4141 or consent of department. Measures of the geometric properties of fluid dynamic control surfaces such as ship hulls, aircraft skins, and pump impellers. Angles, thicknesses, distances, areas, intersections, and shape. Applications to manufacturing.

NAME 6145 Parametric Hull Modeling and Shape Optimization 3cr.
Prerequisite: NAME 3150, NAME 3160, NAME 4141 or instructor's permission. Parametric modeling of curves and surfaces, mathematical description of hulls, parametric design of ship and offshore structure hulls; Basics of optimization, optimization algorithms, multi-objective optimization, optimization of hulls with respect to resistance, propulsion and sea keeping based on stochastic models.

NAME 6160 Numerical Methods in Hydrodynamics 3cr.
Prerequisites: NAME 4160, CSCI 1201 or knowledge of computer programming. Numerical methods for the solution of governing equations in hydrodynamics. Use of numerical integration, finite difference methods, and use of viscous flow calculation software to calculate fluid pressure, force, and the flow field around geometric bodies and ship hulls.

NAME 6162 Ship Motions 3cr.
Prerequisites: ENME 3020 ENME 3720 and NAME 4160 or consent of department. Derivation of the equations of motion of a ship in six degrees of freedom; ship maneuvering; design criteria for controls fixed stability; rudder design; waves and wave effects; ship response in regular waves; ship response in random waves; design criteria for a ship.

NAME 6164 Advanced Ship/Offshore Platform Motions 3cr.
Prerequisite: NAME 4162 or consent of department. This course will continue the study of ship and platform motions begun in the

introductory courses and address some additional advanced topics. These advanced topics will include: finite amplitude coupled ship motions in six-degrees of freedom described by Euler's equations of motion and Euler angle kinematics; nonlinear ship rolling motion and capsizing; ship maneuvering and control including rudder design and controls fixed stability; time-domain representation of hydrodynamic forces; analysis and design of motion reducing devices; etc.

NAME 6166 Probabilistic Ship/Offshore Platform Dynamic 3cr.
Prerequisites: NAME 4162 or consent of department. Wind generated water waves which occur in nature are random. This course will continue the discussion of a vessel's response to a narrow banded random seaway begun in introductory courses and consider non-narrow banded and non-linear effects. Needed stochastic concepts such as ensemble averages, correlation functions, stationary and ergodic random processes, and power spectra are developed heuristically. Various spectral formulations will be considered. Short-term and long-term design in a given sea spectrum versus a family of spectra will be considered. Wave record analysis and generation will be discussed. Order statistics and their relation to extreme values will be studied. Recent developments in the field will also be considered.

NAME 6168 Planning Hydrodynamics 3cr.
Prerequisite: NAME 4160 and consent of the department. The principal contributions to the foundations of planning theory are reviewed to elucidate the driving physics of the planning hydrodynamics process and as a demonstration of the practical potential of Approaches to analysis of calm-water planning of general hard-chine hull forms. Planning boat sea keeping analysis is presented and applied to modern hull forms. Applications to catamarans, both calm water and seaway dynamics, is included via computational methods.

NAME 6175 Design of Fixed Offshore Platforms 3cr.
(ENCE 6375 and NAME 6175 are cross-listed) Prerequisites: ENCE 3356 (or NAME 3120), ENCE 4358 (or NAME 3120), ENCE 4340, or permission of Department. Design of fixed offshore platform structures and their foundations; loadings, materials, design codes; design examples.

Naval ROTC

NAVS 1010 Introduction To Naval Science 3cr.
A general introduction to the Navy and Marine Corps. The instruction places particular emphasis on the mission, organization, regulations, and broad warfare components of the Navy. Included is an overview of officer and enlisted rank and rating structures, the basic tenets of naval courtesy and customs, discipline, Navy Core Values, naval leadership, and ship's nomenclature. The course also provides a conceptual framework/ working vocabulary for NROTC students to use on Summer Cruise. The student is made cognizant of the major challenges facing today's naval officer.

NAVS 1011 Naval Science Lab I 0cr.
A non-graded but mandatory laboratory which must be taken concurrently with NAVS 1010.

NAVS 1020 Seapower 3cr.
Designed to develop the student's knowledge and interest in sea power and maritime affairs, this course is oriented towards the influence of sea power upon history and the implementation of sea power as an instrument of national policy. The survey begins with the age of galley warfare and concludes with an analysis of current military operations.

NAVS 1021 Seapower Lab 0cr.
A non-graded but mandatory laboratory which must be taken concurrently with NAVS 1020.

NAVS 2010 Naval Ship Systems I 3cr.
An introduction to the principles of ship design and operation. Ship stability, structure, main propulsion system, and auxiliary subsystems are carefully examined with emphasis on the interdependency of the subsystems which comprise the overall ship system.

NAVS 2011 Naval Ship Systems I Lab 0cr.
A non-graded but mandatory laboratory which must be taken concurrently with NAVS 2010.

NAVS 2200 Leadership & Management 3cr.
A comprehensive study of organizational behavior and management. Topics include survey of management functions of planning, organizing, and controlling; and introduction to individual/group behavior in organizations; and extensive study of motivational/ leadership. Major behavior theories explored in detail. Practical applications explored through using experiential exercises, case studies, and laboratory discussions. Other topics include decision making communication, responsibility, authority, accountability, and total quality leadership.

NAVS 2201 Leadership & Management Lab 0cr.
A non-graded but mandatory laboratory which must be taken concurrently with NAVS 2200.

NAVS 3010 Naval Ship Systems II 3cr.
This course provides an introduction to theory and principles of operation of naval weapons systems. It includes coverage of types of weapons and fire control systems, capabilities and limitations, theory of target acquisition, identification and tracking, trajectory principles, and basics of naval ordinance.

NAVS 3011 Naval Ship Systems II Lab 0cr.
A non-graded but mandatory laboratory which must be taken concurrently with NAVS 3010.

NAVS 3100 Navigation I 3cr.
A comprehensive study designed to introduce the theory and practical applications of marine navigation. Topics include an understanding of the marine environment, terrestrial and celestial navigation theory, navigational equipment, visual navigation aids, nautical charts and publications, and electronic navigation theory.

NAVS 3101 Navigation I Lab 0cr.
A non-graded but mandatory laboratory which must be taken concurrently with NAVS 3100.

NAVS 3110 Navigation II 3cr.
A comprehensive study of relative motion, vector-analysis theory, formation tactics, and ship employment. Also included are introductions to naval operations and operations analysis, ship's behavior and characteristics in maneuvering, applied aspects of ship handling, afloat communications, and command and control.

NAVS 3111 Navigation II Lab 0cr.
A non-graded but mandatory laboratory which must be taken concurrently with NAVS 3110.

NAVS 3120 Evolution of Warfare 3cr.
This course traces the development of warfare from the dawn of recorded history to present, focusing on the impact of major military theorists, strategists, tacticians, and technological developments. Students acquire a basic sense of strategy, develop an understanding of military alternatives, and see the impact of historical precedence on military thought and actions. This course concludes with a review of the various modern warfare concepts and princi-

ples outlined in the National Command Authorities Joint Vision 2010, and briefly explores the future of armed conflict.

NAVS 3121 Evolution of Warfare Lab 0cr.
A non-graded but mandatory laboratory which must be taken concurrently with NAVS 3120.

NAVS 3130 Amphibious Warfare 3cr.
This course surveys the historical development of amphibious doctrine and the conduct of amphibious operations. Emphasis is placed on the evolution of amphibious warfare in the 20th century, especially during World War II. This course explores present day capabilities, limitations, and the force structure of current amphibious forces, and establishes a foundation for understanding the future of littoral warfare.

NAVS 3131 Amphibious Warfare Lab 0cr.
A non-graded but mandatory laboratory which must be taken concurrently with NAVS 3130.

NAVS 3200 Leadership & Ethics 3cr.
Completes final preparations of NROTC ensigns/2nd Lieutenants for their first fleet assignments as division officers or platoon commanders. Topics of discussion include: military leadership, values/professional ethics; the Uniform Code of Military Justice and Navy regulations emphasizing Navy/ Marine Corps junior officer's typical application of law; and separate discussions of Navy and Marine Corps personnel policies and practices relating to the roles of enlisted members, junior and senior officers, personnel counseling, evaluation, advancement, career planning, personal finances, drug and alcohol abuse, fraternization and sexual harassment, and reporting aboard to their first command.

NAVS 3201 Leader & Ethics Lab 0cr.
A non-graded but mandatory laboratory which must be taken with NAVS 3200.

Philosophy

PHIL 1000 Introduction to Philosophy 3cr.
An introductory study of basic philosophical concepts and problems.

PHIL 1050 Reasoning 3cr.
A study of the methods of understanding, analyzing, and criticizing arguments. The emphasis will be on increasing one's practical skills as a critical thinker. The arguments will be of the sort encountered in day-to-day life, e.g, those found in advertisements, newspaper editorials, and political campaigns.

PHIL 1100 Introduction to Logic and the Scientific Method 3cr.
Not open to students who place at a remedial level in mathematics until they have completed MATH 0107. An introduction to the theory of deductive reasoning.

PHIL 1200 Social Ethics 3cr.
A study of representative issues of contemporary social concern, such as capital punishment, civil disobedience, abortion, violence, racial and sexual discrimination. Emphasis will be on clarifying the ethical and other philosophical assumptions underlying the issues and on careful analysis of arguments.

PHIL 2090 Philosophical Problems 3cr.
A detailed investigation of a particular philosophical problem or problems, varying in content from semester to semester, with appropriate readings from classical and/or contemporary sources. May be repeated once for credit.

PHIL 2093 Independent Work 1cr.
Prerequisite: consent of department. Reading, conferences, and reports under the direction of a member of the philosophy faculty.

PHIL 2094 Independent Work 1cr.
Prerequisite: consent of department. Reading, conferences, and reports under the direction of a member of the philosophy faculty.

PHIL 2095 Independent Work 1cr.
Prerequisite: consent of department. Reading, conferences, and reports under the direction of a member of the philosophy faculty.

PHIL 2102 Symbolic Logic 3cr.
A study of truth-functional and first-order predicate logic. Open to all students and especially recommended for philosophy majors.

PHIL 2201 Ethics 3cr.
A study of concepts of right and wrong good and evil and their grounds.

PHIL 2203 Philosophy and Feminism 3cr.
A critical examination of traditional and contemporary conceptions of the moral, social, and metaphysical status of women. Special attention will be paid to the strengths and weaknesses of feminist theories concerning the philosophical nature and significance of gender and related concepts.

PHIL 2205 Social and Political Philosophy 3cr.
An introduction to theories and problems concerning the nature and justification, if any, of society, authority, and the state.

PHIL 2207 Philosophy of Law 3cr.
A critical examination, at an introductory level, of questions concerning the nature and foundations of law, the relation of law and morality and law and society, and of key concepts such as responsibility and punishment.

PHIL 2222 Philosophy of Sex and Love 3cr.
An investigation of the nature of sex and the nature of love, and of the conceptual relationship between them. The course draws on both classical and contemporary philosophy, and addresses social and ethical issues about sexual behavior and love.

PHIL 2244 Engineering Ethics 1cr.
This course will examine ethical issues arising in the professional and social-policy aspects of engineering. Coverage includes such topics as: codes of professional ethics, methods of moral problem solving, honesty, risk, responsibilities to employers and to the public, technology and the environment, and moral issues in management, research, and consulting.

PHIL 2250 Philosophical Backgrounds of Literary Criticism 3cr.
A critical review and analysis of the philosophical foundations of the more important theories of literary criticism from Plato to the present time.

PHIL 2311 History of Ancient and Medieval Philosophy 3cr.
A survey of philosophy from the early Greeks through the middle ages including such philosophers as the Pre-Socratics, Socrates, Plato, Aristotle, Augustine, and Thomas Aquinas.

PHIL 2312 History of Modern Philosophy 3cr.
A survey of philosophy since the beginning of the 17th century, including such philosophers as Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, Kant, and Hegel.

2314 American Philosophy 3cr.
Readings in American philosophy and its sources, including such thinkers as Edwards, Jefferson, Emerson, Peirce, James, Royce, Dewey, Santayana, and Whitehead.

PHIL 2411 Philosophy of Language 3cr.
A critical survey and analysis of philosophical theories of meaning, reference, analyticity, synonymy, truth, and the relation of language to reality.

PHIL 2413 Contemporary Philosophy 3cr.
A survey of selected important philosophical developments since 1900.

PHIL 2430 Methods of Science 3cr.
An introductory study and survey of scientific methodology and concepts and, especially, of the nature of scientific reasoning: the manner in which science proposes, tests, confirms, and refutes theories and hypotheses about the natural world.

PHIL 2450 Philosophy of Mind 3cr.
Prerequisite: three hours of philosophy or consent of department. A critical survey and analysis of major problems in the philosophy of mind: personal identity, the existence of other minds, the relationship of mind and body.

PHIL 2701 Religions of the East 3cr.
A systematic analysis of the doctrine and practices of major religions outside the Judaeo-Christian tradition; such as Buddhism, Confucianism, Hinduism, Taoism, and others, including the influence of Islam. Particular attention will be given to the philosophical presuppositions of each religion.

PHIL 2702 Religions of the West 3cr.
A systematic analysis of the doctrine and practice of the "religions of Abraham": Judaism, Christianity, and Islam. Particular attention will be given to the philosophical presuppositions of each religion.

PHIL 3001 Senior Honors Thesis 3cr.
Prerequisite: consent of department and Director of the Honors Program. Directed research leading to the writing of a Senior Honors Thesis. This course must be repeated once in order to graduate With Honors in Philosophy. Credit for this course will not be counted toward the 30 hours of philosophy courses required for a major in philosophy.

PHIL 3030 Individual Senior Seminar 1cr.
Required of all philosophy majors during their senior year. Under the direction of a faculty member, the student prepares a senior qualifying paper which will be evaluated by the department as a whole. Successful completion of this course satisfies the general degree requirement for oral competency.

PHIL 3094 Directed Readings in Philosophy 3cr.
Prerequisites: three hours of philosophy and consent of department. This course may be repeated once for credit.

PHIL 3095 Special Topics in Philosophy 3cr.
Prerequisite: three hours of philosophy or consent of department. The course may be repeated once for credit. Topic varies.

PHIL 3101 Advanced Logic 3cr.
Prerequisite: PHIL 2102 or consent of department. A study of the semantics of formal languages, including proofs of the consistency and completeness of the propositional and first-order predicate logics. The course may also include discussion of such non-standard logics as multi-valued, modal, and deontic.

PHIL 3201 Advanced Ethics 3cr.
Prerequisite: PHIL 1200, 2201, 2205, or 2207, or consent of department. A systematic study of major positions, problems, and concepts in ethical theory, as represented in classical and contemporary works.

PHIL 3232 Medical Ethics 3cr.
A critical exploration of basic moral issues in medical practice and research, such as: genetic engineering, abortion, euthanasia, paternalism, truth-telling, confidentiality, informed consent, distribution of resources, and experimentation on human and nonhuman subjects.

PHIL 3250 Philosophy of the Arts 3cr.
Prerequisite: three hours of philosophy or consent of department. A critical inquiry into the nature of artistic production, performance, enjoyment, and evaluation. What is art? How does the concept apply to music, literature, painting, sculpture, architecture, dance, theatre? What is the "aesthetic" experience? These and other questions will be explored through discussion of relevant readings and examples.

PHIL 3301 The Philosophy of Plato 3cr.
Prerequisite: three hours of philosophy or consent of department. A close reading of the most famous and influential dialogues of the fourth-century B.C. Athenian Plato, the first great systematic thinker of Western philosophy and the creator of some of the basic concepts of Western culture.

PHIL 3302 The Philosophy of Aristotle 3cr.
Prerequisite: three hours of philosophy or consent of department. Aristotle's ideas are examined through careful analysis of his main works with emphasis on his criticisms of the basic theories of his teacher, Plato, and Aristotle's influence on subsequent Western philosophy, literature, and science.

PHIL 3331 Continental Rationalism and the 17th Century 3cr.
Prerequisite: three hours of philosophy or consent of department. Readings in Seventeenth Century thinkers such as Descartes, Spinoza, and Leibniz, whose speculations about the structure of existence helped form the theoretical framework of modern science. Their fundamental ideas about the nature and limits of human knowledge will be examined.

PHIL 3332 British Empiricism and the Eighteenth Century 3cr.
Prerequisite: three hours of philosophy or consent of department. A study of the doctrines and arguments of Locke, Berkeley, and Hume who exerted a formative influence on the development of philosophy, science, politics, and literature.

PHIL 3333 The Philosophy of Immanuel Kant 3cr.
Prerequisite: three hours of philosophy or consent of department. A study of the main doctrines and arguments of Immanuel Kant, 18th Century philosopher who revolutionized ethics, aesthetics, metaphysics, and epistemology.

PHIL 3334 German Idealism and the Nineteenth Century 3cr.
Prerequisite: three hours of philosophy or consent of department. A study of the most important ideas in continental philosophical speculation during the generations immediately after Kant; major figures include Hegel and his contemporaries, such as Fichte, Schelling, and Schopenhauer, whose metaphysical theories exerted considerable influence on the Romantic movement and on Marxism and other forms of socialism.

PHIL 3400 Metaphysics 3cr.
Prerequisite: three hours of philosophy or consent of department. An examination of fundamental issues and problems in metaphysics, such as the nature of reality, universals, personal identity, persistence through change, space, and time.

PHIL 3401 Theories of Knowledge 3cr.
Prerequisite: three hours of philosophy or consent of department. A philosophical investigation of the meaning, varieties, limits, and grounds of human knowledge.

PHIL 3415 Phenomenology and Continental Philosophy 3cr.
Prerequisite: three hours of philosophy or consent of department. An introduction to the doctrines, methods, and themes of phenomenology in the context of twentieth century continental philosophy, with attention to the growing impact of phenomenology on American philosophers, social scientists, and literary critics. This course will involve a careful study of the work of important figures in the phenomenological movement such as Husserl, Heidegger, Sartre, Merleau-Ponty, Schutz, and others.

PHIL 3422 Analytical Philosophy 3cr.
Prerequisite: three hours of philosophy or consent of department. An examination of the methods and doctrines of the leading approach to philosophy in the twentieth century in the English-speaking world. Such thinkers as Wittgenstein, Russell, Moore, Carnap, Austin, and Quine will be discussed.

PHIL 3430 Philosophy of the Natural Sciences 3cr.
Prerequisites: three hours of philosophy and eight hours of science or consent of department. An examination in detail of the outstanding problems, positions, and achievements within contemporary philosophy of science. Attention will be given to issues arising from both the physical and the biological sciences.

PHIL 3431 Philosophy of the Social Sciences 3cr.
Prerequisites: three hours of philosophy and nine hours of social sciences or consent of department. A philosophical examination of theories, laws, explanations, and concepts in contemporary social sciences such as anthropology, psychology, sociology, economics, and psychoanalysis.

PHIL 3450 Philosophical Psychology 3cr.
Prerequisite: three hours of philosophy or consent of department. A critical inquiry into the philosophical aspects of concepts such as intentionality, thought, consciousness, motivation, emotion, and action.

PHIL 3480 Philosophy of Religion 3cr.
Prerequisite: three hours of philosophy or consent of department. A systematic study of such issues as implications of religious experience, attempted proof of the existence (or nonexistence) of God (or gods), the problem of divine foreknowledge, and the problem of evil.

PHIL 3500 The Philosophy of Wittgenstein 3cr.
Prerequisite: three hours of philosophy or consent of department. A close and critical examination of the works of Ludwig Wittgenstein, widely regarded as the most important philosopher of the 20th Century.

PHIL 3511 Existentialism 3cr.
Prerequisite: three hours of philosophy or consent of department. A careful examination of the views of Kierkegaard, Nietzsche, Heidegger, Sartre, and other thinkers associated with one of the 20th Century's most widely influential philosophies.

PHIL 3595 Academic Year Abroad Special Topics in Philosophy 3cr.
This course is only offered through UNO's Academic Year Abroad (AYA) in Innsbruck, Austria and can be repeated once for credit.

PHIL 4027 Philosophy of Heidegger 3cr.
This course will examine fundamental issues in the philosophy of Martin Heidegger, the influential 20th century German thinker whose 1927 book, Being and Time, laid the foundation for existentialism, and whose later work helped shape "postmodernist" discourse. The nature of his thought, and the basis of his multifaceted influence on metaphysics, phenomenology, aesthetics, literary theory, religion, social science, and other areas will be examined.

PHIL 4200 Health Promotion Ethics 3cr.
(EDHS 4200 and PHIL 4200 are cross-listed) This course will examine ethical issues arising in the professional and social-policy aspects of health promotion. Coverage includes such topics as: "fact," "value," and "knowledge" regarding health; moral codes in health promotion; concepts of efficiency, fairness, autonomy, and privacy in health contexts; and special moral problems concerning sex, drugs, food, pain, aging, death, health on the job, and generational equality.

PHIL 4205 Environmental Ethics 3cr.
A philosophical study of theories and problems concerning the moral relationship between human beings and the non-human world, including animals and ecosystems.

Physics

General prerequisites: to register in any physics course a student must be eligible to enroll in Mathematics 1115 or 1125 or have earned credit in any college-level mathematics course.

PHYS 1001 Introduction to Physics 3cr.
Introductory physics courses for non-science majors. May be taken without regard to order. PHYS 1001: Force, motion, properties of matter and heat. PHYS 1002: Sound, electricity, magnetism, light, nuclear physics and relativity. Does not constitute degree credit for any major in the College of Sciences.

PHYS 1002 Introduction to Physics 3cr.
Introductory physics courses for non-science majors. May be taken without regard to order. PHYS 1001: Force, motion, properties of matter and heat. PHYS 1002: Sound, electricity, magnetism, light, nuclear physics and relativity. Does not constitute degree credit for any major in the College of Sciences.

PHYS 1003 Introductory Physics Laboratory 1cr.
Laboratory to accompany PHYS 1001 and PHYS 1002 respectively. Prerequisite: credit or registration in PHYS 1001 and 1002.

PHYS 1004 Introductory Physics Laboratory 1cr.
Laboratory to accompany PHYS 1001 and PHYS1002 respectively. Prerequisite: credit or registration in PHYS 1001 and 1002.

PHYS 1005 Introductory Astronomy 3cr.
Introductory course in astronomy.PHYS 1005 treats naked-eye astronomy, the history and development of astronomy, and the comparative planetology of the solar system. PHYS 1006 introduces the astronomy of the Sun and stars, galaxies and cosmolgy. May be taken without regard to order.

PHYS 1006 Introductory Astronomy 3cr.
Introductory course in astronomy.PHYS 1005 treats naked-eye astronomy, the history and development of astronomy, and the comparative planetology of the solar system. Physics 1006 introduces the astronomy of the Sun and stars, galaxies and cosmology. May be taken without regard to order.

PHYS 1007 Introductory Astronomy Laboratory 1cr.
Prerequisite: credit or registration in PHYS 1005 and 1006 respectively. A two-hour night laboratory to accompany PHYS 1005 and 1006.

PHYS 1008 Introductory Astronomy Laboratory 1cr.
Prerequisite: credit or registration in PHYS 1005 and 1006 respectively. A two-hour night time laboratory to accompany PHYS 1005 and 1006.

PHYS 1010 Physics of Music 3cr.
Prerequisite: high school algebra. The physical and acoustical background of music, the reception and hearing of musical sound, the acoustics of rooms, the production of musical sounds and musical instruments.

PHYS 1011 Physics of Music Laboratory 1cr.
Prerequisite: credit or registration in PHYS 1010. A two-hour laboratory to accompany PHYS 1010.

PHYS 1020 Energy and Environmental Physics 3cr.
Introduction to energy, energy supply, and demand, exponential growth, electric energy, basic thermodynamic limitations, fossil

fuels, nuclear power, future energy sources, transportation, pollution, resources, recycling.

PHYS 1030 Physics An Overview 3cr.
A descriptive introduction to the basic concepts of the major branches of Physics and their application in modern society. Examples will be taken from current physics-based research in a variety of fields.

PHYS 1031 General Physics 3cr.
Offered each semester. Prerequisite: credit in MATH 1116 or MATH 1126. A study of classical mechanics, fluids and sound. Credit cannot be earned for both Physics 1031 and 1061. The required one hour per week recitation must be scheduled for the selected Physics 1031 section.

PHYS 1032 General Physics 3cr.
Offered each semester. Prerequisite: Physics 1031. A study of heat, optics, electricity, magnetism and modern physics. Credit cannot be earned for both Physics 1032 and Physics 1062.

PHYS 1033 General Physics Laboratory 1cr.
Offered each semester. Prerequisite: credit or registration in PHYS 1031. A two-hour laboratory to accompany PHYS 1031. Credit cannot be earned for both Physics 1033 and Physics 1063.

PHYS 1034 General Physics Laboratory 1cr.
Offered each semester. Prerequisite: credit or registration in PHYS 1032. A two-hour laboratory to accompany PHYS 1032. Credit cannot be earned for both Physics 1034 and Physics 1065.

PHYS 1061 Physics for Science and Engineering 3cr.
Offered each semester. Prerequisites: credit or registration in MATH 2111 or 2108 and co-registration in PHYS 1063 or consent of department. A study of the fundamental concepts and theories of general physics, mechanics of particles, rigid bodies, fluids, and sound. The required one-hour per week recitation period must be scheduled for the selected Physic 1061 section.

PHYS 1062 Physics for Science and Engineering 3cr.

Offered each semester. Prerequisites: PHYS 1061 and credit or registration in MATH 2112 or 2109. A continuation of PHYS 1061. Heat, electricity, and magnetism.

PHYS 1063 Physics Laboratory for Science and Engineering 1cr.
Offered each semester. Prerequisite: credit or registration in PHYS 1061. Laboratory course to accompany PHYS 1061. Two hours of laboratory.

PHYS 1065 Physics Laboratory for Science and Engineering 1cr.
Offered each semester. Prerequisite: credit or registration in PHYS 1062. Laboratory course to accompany PHYS 1062. Two hours of laboratory.

PHYS 2005 Intermediate Astronomy: Cosmology 3cr.
Prerequisite: PHYS 1005 1006 and MATH 1111. An intermediate level astronomy course on the nature, origin, evolution, and probable fate of the universe, including the Big Bang theory and modern controversies in cosmology.

PHYS 2064 Physics for Science and Engineering 3cr.
Offered each semester. Prerequisites: PHYS 1062 and 1063. The last course in a three-semester sequence. Light and modern physics.

PHYS 2191 Special Problems in Physics 1-3cr.
Offered each semester. Prerequisite: consent of the department. Amount of credit to be stated at registration. Individual reading conferences and/or laboratory work on problem or problems in physics. Section number will correspond with the credit to be earned. A student will be allowed no more than a total of six credits in Special Problems (PHYS 4191 3191 and 2191) .

PHYS 3001 Principles of Bio-Medical Instrumentation 2cr.
Prerequisites: Physics 1032 and 1034. An introduction to the physical principles necessary for understanding the operation of equipment used by medical technicians and certain biology researchers. One hour of lecture and two hours of laboratory each week.

PHYS 3191 Special Problems in Physics 1-3cr.
Offered each semester. Prerequisite: consent of the department. Amount of credit to be stated at registration. Individual reading conferences and/or laboratory work on problem or problems in physics. Section number will correspond with the credit to be earned. A student will be allowed no more than a total of six credits in Special Problems (PHYS 4191 3191 and 2191).

PHYS 3198 Undergraduate Seminar 1cr.
Offered each semester. A group comprised of representatives of the physics faculty and undergraduate physics majors which meets at regular intervals during the semester to discuss selected topics in physics. Physics majors must formally register and present an approved paper in order to satisfy credit requirements. May be repeated for credit.

PHYS 3261 Field Methods in Geophysics 6cr.
(PHYS 3261 and GEOP 3261 are cross-listed) Prerequisites: PHYS 2064 and consent of instructor. Basic introduction to the application of geophysical field techniques. Includes collecting, processing, and interpreting gravity, magnetic, and seismic data. Practical experience in the conduct of geophysical surveys, operation of equipment, data reduction, and simple interpretation. Preparation of geophysical reports in the style normally used for published papers. Thirty-five hours of classroom work and field measurements per week during the summer session.

PHYS 3301 Intermediate Mechanics 3cr.
Prerequisites: PHYS 1062 and MATH 2115. Application of the fundamental laws of mechanics to particles and rigid bodies.

PHYS 4004 Contemporary Physics 3cr.
Prerequisite: PHYS 1032 or consent of department. A survey of contemporary topics which may include nuclear power, solar energy, Einstein's relativity and cosmology, energy and matter in the quantum picture. (Physics majors can not use this course as a physics elective.)

PHYS 4091 Special Topics in Physics and Physical Science for Teachers 1-6cr.
Prerequisite: consent of department. The content and format of this course may be varied from semester to semester. The topics covered will generally relate to background material (rather than methodology) which is in the areas of physics or physical science and of particular interest to precollege teachers. Amount of credit to be stated at time of registration; may be repeated for no more than a total of six hours credit. This course may not be used for degree credit by students in the College of Sciences except those enrolled in the M.A. in science teaching program.

PHYS 4150 Interfacing Microprocessors with Scientific Apparatus 3cr.
Prerequisite: Physics 1034 or 1065 or consent of department. An introduction to digital circuits and microprocessors with emphasis on interfacing microprocessors with scientific apparatus for experiment control, data acquisition, and storage. One-and-one-half hours of lecture and two-and-one-half hours of laboratory per week.

PHYS 4160 Advanced Laboratory 3cr.
Prerequisite: Physics 4150 or consent of department. Four hours of

laboratory and one hour of lecture each week. Selected experiments in several branches of physics with special emphasis on the control of selected experiments by microprocessors. Fundamentals of AC and DC circuits.

PHYS 4191 Special Problems in Physics 1-3cr.

PHYS 4194 Senior Honors Thesis 1-6cr.
Prerequisite: consent of director of the Honors Program. A candidate for a degree with honors in Physics must complete a total of six credit hours culminating in the presentation of an acceptable thesis and successful defense of the thesis during an oral examination to be conducted by the student's honors committee. (See requirements for graduation with honors.) The six credit hours may be taken in any combination, but only in conjunction with supervised work on the thesis. Registration for this course requires the approval of the Director of the Honors Program. Interim grades will be S or U. This course may not be taken for graduate credit.

PHYS 4195 Topics in Physics 1-3cr.
Prerequisite: consent of department. The content of this course will be varied from semester to semester. The topics will be divided into the following categories: (4195) classical, (4196) modern, (4197) current topics, (4198) geophysics, and no more than a total of six semester hours credit will be allowed toward a B.S. degree. Section number will correspond with credit to be earned.

PHYS 4196 Special Topics in Physics 1-3cr.
Prerequisite: consent of department. The content of this course will be varied from semester to semester. The topics will be divided into the following categories: (4195) classical, (4196) modern, (4197) current topics, (4198) geophysics, and no more than a total of six semester hours credit will be allowed toward a B.S. degree. Section number will correspond with credit to be earned.

PHYS 4197 Special Topics in Physics 1-3cr.
Prerequisite: consent of department. The content of this course will be varied from semester to semester. The topics will be divided into the following categories: (4195) classical, (4196) modern, (4197) current topics, (4198) geophysics, and no more than a total of six semester hours credit will be allowed toward a B.S. degree. Section number will correspond with credit to be earned.

PHYS 4198 Special Topics in Physics 1-3cr.
Prerequisite: consent of department. The content of this course will be varied from semester to semester. The topics will be divided into the following categories: (4195) classical, (4196) modern, (4197) current topics, (4198) geophysics, and no more than a total of six semester hours credit will be allowed toward a B.S. degree. Section number will correspond with credit to be earned.

PHYS 4201 Introduction to Mathematical Physics 3cr.
Prerequisite: consent of department. An introduction to the mathematical treatment of selected physical problems.

PHYS 4202 Introduction to Mathematical Physics 3cr.
Prerequisite: consent of department. An introduction to the mathematical treatment of selected physical problems.

PHYS 4203 Introduction to Applied Group Theory 3cr.
Prerequisite: PHYS 4401 or consent of department. The effects of symmetry in physical laws with examples from atomic, molecular, and solid state physics.

PHYS 4205 Physical Applications of the Fourier Transform 3cr.
Prerequisites: Mathematics 2115 and Physics 1062 or consent of department. Physical applications of the Fourier transform and series, convolution, and basic theorems; sampling and data treatment; and introduction to Fourier methods in geophysics and optics.

PHYS 4211 Introduction to Computational Physics 3cr.
Prerequisites: credit in a computer programming course and PHYS 4501, or consent of department. An introduction to the computational treatment of physics problems in areas such as electromagnetic phenomena, acoustic wave propagation, scattering, atomic structure, and astrophysics.

PHYS 4302 Advanced Mechanics 3cr.
Prerequisite: PHYS 3301 or consent of department. Special relativity; variational techniques; Lagrangian and Hamiltonian formulations of classical mechanics.

PHYS 4322 Introduction to Acoustics 3cr.
Prerequisites: Physics 2064 and Mathematics 2221, or consent of department. Fundamental principles of acoustics, emphasizing the physical concepts, derivations, and solutions of acoustic wave equations in bounded and unbounded fluids and solids. Reflection, refraction, and transmission; radiation characteristics of vibrating bodies. Acoustic wave guide theory, geometrical acoustics, and ray theory. Selected topics as time permits.

PHYS 4381 Applied Seismic Data Acquisition and Processing 3cr.
(PHYS 4381 and GEOP 4381 are cross-listed) Prerequisites: PHYS 4205, GEOP 4810 and MATH 2221 or consent of department. Basic acoustics and ray tracing; seismic data acquisition; CDP; noise analyses and arrays; physics of acoustic sources, measuring and recording instruments; demultiplexing; NMO and velocity analysis; statics; and introduction to deconvolution, filtering, and migration. Use of fundamental seismic data processing computer programs, graphics, and displays of seismic data; seismic data processing of field data. Two hours of lecture and two hours of computer laboratory per week.

PHYS 4401 Introduction to Quantum Mechanics 3cr.
Prerequisites: PHYS 2064 and either MATH 2115 or MATH 2221 or consent of department. An introduction to the basic concepts in quantum mechanics.

PHYS 4402 Quantum Physics of Atoms, Solids, and Nuclei 3cr.
Prerequisites: PHYS 4401 or consent of department. Quantum theory of the electronic structure of atoms, diatomic molecules, solids, and nuclei. Topics include perturbation theory applied to multi-electron atoms, L-S coupling, molecular orbitals, band theory of solids, and shell model of nuclei.

PHYS 4501 Electricity and Magnetism 3cr.
Prerequisites: PHYS 1062 and MATH 2115. Fundamentals of electricity and magnetism.

PHYS 4503 Electricity and Magnetism 3cr.
Prerequisite: PHYS 4501. Time-dependent electric and magnetic fields. Solutions of Maxwell's equations and electromagnetic radiation.

PHYS 4505 Introduction to Plasma Physics 3cr.
Prerequisites: Physics 4501 and Mathematics 2221 or consent of department. An introduction to plasma physics covering particle orbit theory, hydromagnetics, shock waves, and plasma radiation.

PHYS 4507 Gravity and Magnetics 3cr.
(GEOP 4507 and PHYS 4507 are cross-listed) Prerequisites: GEOP 4810, PHYS 3301 or 4501, MATH 2221, or consent of department. Fundamentals of scaler potentials and analysis of vector fields as applied to geophysical problems in gravity and magnetism. Analytic properties of the earth's gravitational and magnetic fields in space and time. Modeling and interpretation of gravity and magnetic anomalies.

PHYS 4510 Electronic Instrumentation for Scientists 3cr.
Prerequisite: Physics 4150 or consent of department. The principles of electronic instrumentation with emphasis placed on semiconductor devices and electronic instruments which find extensive applications in laboratories in physics, biology, chemistry, earth sciences, and psychology. Specific topics covered will include the following: semiconductor diodes and transistors, basic transistor amplifier circuits, current and voltage amplifiers, signal generators, operational amplifiers, analog-to-digital and digital-to-analog converters, pulse generators and counters, radiation transducers and integrated circuits.

PHYS 4521 Modern Optics 3cr.
Prerequisites: PHYS 2064 and MATH 2115 or consent of department. The fundamental physical principles of optics and optical instruments, and topics selected from lasers, optical waveguides and thin films, and properties of optical materials.

PHYS 4601 Thermodynamics & Statistical Mechanics 3cr.
Prerequisites: PHYS 2064 and MATH 2115 or consent of the Department. A study of theory and experiments in the fields of thermodynamics and statistical mechanics.

PHYS 4603 Introduction to Low Temperature Physics 3cr.
Prerequisite: PHYS 4601 or consent of department. A study of the macroscopic theory of superfluid helium, methods of producing low temperatures, and such topics as magnetic effects, adiabatic demagnetization and superconductivity.

PHYS 4801 Nuclear and Reactor Physics 3cr.
Prerequisites: PHYS 2064 and consent of department. A survey of nuclear forces and models, radioactivity, nuclear reactions, apparatus for detection of particles and radiation of nuclear origin (scintillation counters, solid-state detectors, coincidence electronics, etc.), fission and fusion reactors, heat exchangers, radiation damage, reactor shielding, nuclear fuel fabrication and reprocessing, options for disposal of nuclear wastes.

PHYS 4901 Condensed Matter and Materials Physics 3cr.
Prerequisite: PHYS 4401 or consent of department. Properties of the crystalline state. Free electron and band theories of metals, insulators, and semiconductors. Magnetism, superconductivity, and superfluidity.

PHYS 6005 Laboratory Techniques in Physics for Teachers I & II 3cr.
Prerequisite: PHYS 4004 or consent of department. A course to aid science teachers to deepen their knowledge of fundamental physics by designing and carrying out demonstrations and laboratory techniques for presenting phenomena. The first semester will deal primarily with mechanics, astronomy, and thermal physics. The second semester will deal primarily with light, electromagnetism, modern physics, and energy sources. (Need not be taken in sequence.) Two hours of lecture and two hours of laboratory.

PHYS 6006 Laboratory Techniques in Physics for Teachers I & II 3cr.
Prerequisite: PHYS 4004 or consent of department. A course to aid science teachers to deepen their knowledge of fundamental physics by designing and carrying out demonstrations and laboratory techniques for presenting phenomena. The first semester will deal primarily with mechanics, astronomy, and thermal physics. The second semester will deal primarily with light, electromagnetism, modern physics, and energy sources. (Need not be taken in sequence.) Two hours of lecture and two hours of laboratory.

PHYS 6191 Selected Topics in Physics-Mathematical 1-6cr.
The content of this course will be varied from semester to semester. The topics covered are divided into the following categories: (6191) Mathematical Physics, (6192) Atomic and Molecular Physics, (6193) Nuclear and Elementary Particle Physics, (6194) Condensed Matter and Materials Physics, and (6195) Geophysics. The amount of credit a particular course carries will be stated at registration. A maximum of six credit hours may be accumulated by the student in any one category. No more than six hours total will be allowed toward an M.S. degree. Section number will correspond with credit to be earned."

PHYS 6192 Selected Topics in Physics-Atomic & Molecular 1-6cr.
The content of this course will be varied from semester to semester. The topics covered are divided into the following categories: (6191) Mathematical Physics, (6192) Atomic and Molecular Physics, (6193) Nuclear and Elementary Particle Physics, (6194) Condensed Matter and Materials Physics, and (6195) Geophysics. The amount of credit a particular course carries will be stated at registration. A maximum of six credit hours may be accumulated by the student in any one category. No more than six hours total will be allowed toward an M.S. degree. Section number will correspond with credit to be earned."

PHYS 6193 Selected Topics in Physics-Nuclear & Elementary Particle Physics 1-6cr.
The content of this course will be varied from semester to semester. The topics covered are divided into the following categories: (6191) Mathematical Physics, (6192) Atomic and Molecular Physics, (6193) Nuclear and Elementary Particle Physics, (6194) Condensed Matter and Materials Physics, and (6195) Geophysics. The amount of credit a particular course carries will be stated at registration. A maximum of six credit hours may be accumulated by the student in any one category. No more than six hours total will be allowed toward an M.S. degree. Section number will correspond with credit to be earned."

PHYS 6194 Selected Topics in Physics-Solid State 1-6cr.
The content of this course will be varied from semester to semester. The topics covered are divided into the following categories: (6191) Mathematical Physics, (6192) Atomic and Molecular Physics, (6193) Nuclear and Elementary Particle Physics, (6194) Condensed Matter and Materials Physics, and (6195) Geophysics. The amount of credit a particular course carries will be stated at registration. A maximum of six credit hours may be accumulated by the student in any one category. No more than six hours total will be allowed toward an M.S. degree. Section number will correspond with credit to be earned."

PHYS 6195 Selected Topics in Physics-Geophysics 1-6cr.
The content of this course will be varied from semester to semester. The topics covered are divided into the following categories: (6191) Mathematical Physics, (6192) Atomic and Molecular Physics, (6193) Nuclear and Elementary Particle Physics, (6194) Condensed Matter and Materials Physics, and (6195) Geophysics. The amount of credit a particular course carries will be stated at registration. A maximum of six credit hours may be accumulated by the student in any one category. No more than six hours total will be allowed toward an M.S. degree. Section number will correspond with credit to be earned.

PHYS 6198 Seminar 1cr.
This course is offered each semester and meets weekly. May be repeated for credit.

PHYS 6205 Digital Filtering and Image Processing 3cr.
Prerequisite: PHYS 4205 or consent of department. The discrete Fourier transform and the fast Fourier transform in physical applications; noise characteristics and techniques of noise removal; one-dimensional image enhancement and restoration; two-dimensional

image processing; and applications to seismic data, pictures, and other physical data.

PHYS 6206 Image Restoration and Enhancement 3cr.
Prerequisite: PHYS 6205 or consent of department. Restoration and enhancement of one- and two-dimensional physical data by noise removal, deconvolution, and other techniques of digital filtering; the Wiener filter, maximum entropy, and maximum likelihood; iterative techniques; spectral windows; and filters for seismic data and images.

PHYS 6207 Digital Filtering and Spectral Analysis I 3cr.
Prerequisites: PHYS 6206 and a background in matrix algebra (such as MATH 2511 or PHYS 4201) or consent of department. Brief review of transform and random process theory, review of matrix algebra, classical spectral estimation, parametric models for random processes, autoregressive spectrum properties and estimation ARMA spectral estimation, Prony method, minimum variance spectral estimation, eigenvector approaches, multichannel and two-dimensional spectral estimation.

PHYS 6208 Digital Filtering and Spectral Analysis II 3cr.
Prerequisites:PHYS 6206 and a background in matrix algebra (such as MATH 2511 or PHYS 4201) or consent of department. Brief review of transform and random process theory, review of matrix algebra, classical spectral estimation, parametric models for random processes, autoregressive spectrum properties and estimation, ARMA spectral estimation, Prony method, minimum variance spectral estimation, eigenvector approaches, multichannel and two-dimensional spectral estimation.

PHYS 6301 Classical Mechanics 3cr.
Prerequisite: Physics 3301 or consent of department. Variational formulation of mechanics due to Lagrange and Hamilton. Kinematics and dynamics of particles and rigid bodies, classical fields, and selected topics.

PHYS 6302 Wave Propagation 3cr.
Prerequisites: PHYS 4322 and 4201 or consent of department. Wave propagation in continuous media with emphasis on geophysical applications, normal mode theory, reflection and refraction, diffraction, dispersion.

PHYS 6321 Acoustics I 3cr.
Prerequisites: PHYS 4201 and 4322 or consent of department. Wave theory of sound: reflection, transmission, and excitation of plane waves; sources of acoustic radiation, geometrical acoustics, and ray theory; scattering and diffraction; acoustic waveguides and normal mode propagation; computational techniques; dissipative processes and nonlinear effects; selected topics of interest as time permits.

PHYS 6322 Acoustics II 3cr.
Prerequisites: Physics 4201 and 4322 or consent of department. Wave theory of sound: reflection, transmission, and excitation of plane waves; sources of acoustic radiation, geometrical acoustics, and ray theory; scattering and diffraction; acoustic waveguides and normal mode propagation; computational techniques; dissipative processes and nonlinear effects; selected topics of interest as time permits.

PHYS 6325 Underwater Acoustic System Analysis 3cr.
Prerequisites: Physics 4322 and Physics 4205 or consent of department. Underwater acoustics, Fourier methods, noise, beamforming, target characteristics, statistical basis for performance analysis, examples of acoustic system analysis. Three hours of lecture per week.

PHYS 6331 Principles of Ocean Physics I 3cr.
Prerequisites: PHYS 4501 and PHYS 3301 or Mechanical Engineering 2750 or consent of department. First Semester: an introduction to physical oceanography, including forces, hydrodynamics, thermodynamics, geophysical fluid dynamics, waves, tides, and currents. Second Semester: a study of the physics of the ocean, emphasizing underwater acoustics, electromagnetics in the ocean, and optics of the sea.

PHYS 6332 Principles of Ocean Physics II 3cr.
Prerequisites: PHYS 4501 and PHYS 3301 or Mechanical Engineering 2750 or consent of department. First Semester: an introduction to physical oceanography, including forces, hydrodynamics, thermodynamics, geophysical fluid dynamics, waves, tides, and currents. Second Semester: a study of the physics of the ocean, emphasizing underwater acoustics, electromagnetics in the ocean, and optics of the sea.

PHYS 6381 Advanced Seismic Techniques 3cr.
Prerequisites: Physics/Geophysics 4381 or consent of department. Velocity analysis, deconvolution and filtering, tau-p slant stacking, velocity filters, 3-D techniques, vertical seismic profiles, migration, forward modeling and synthetics, inverse theories and modeling, interpretation, use and development of seismic data processing computer programs, including graphics and displays. Two hours of lecture and two hours of computer laboratory per week.

PHYS 6401 Quantum Mechanics I 3cr.
Prerequisites: advanced calculus and consent of department. The conceptual basis of quantum mechanics and its relation to classical mechanics. Quantum states and energies are determined for simple systems with emphasis on the use of symmetries and other general features of the systems.

PHYS 6402 Quantum Mechanics II 3cr.
Prerequisite: PHYS 6401. Application of the quantum mechanics to problems in atomic, solid state, and nuclear physics, with an introduction to approximation methods.

PHYS 6501 Electromagnetic Theory I 3cr.
Prerequisite: PHYS4201 and 6301 or consent of department. Electrostatics, magnetostatics, and Maxwell's equations.

PHYS 6502 Electromagnetic Theory II 3cr.
Prerequisite: PHYS 6501 or consent of department. Electromagnetic radiation, special relativity, and diffraction theory.

PHYS 6621 Statistical Mechanics 3cr.
Offered as needed. A survey of the principles of classical and quantum statistics with application to special problems.

PHYS 6701 Atomic Theory 3cr.
Prerequisite: PHYS 6401 or consent of department. Quantum theory of atomic structure and spectra, theory of radiation, selection rules and quantum theory of elastic and inelastic atomic collisions.

PHYS 6721 Molecular Structure 3cr.
Prerequisite:PHYS 6401 or consent of department. Classification of molecular spectra, rotation, and vibration of the diatomic molecule, finer details of infrared and Raman spectra. Rotation and vibration of polyatomic molecules and electronic states.

PHYS 6901 Condensed Matter and Materials Physics 3cr.
Prerequisites: PHYS 4901 and 6401 or consent of department. A detailed discussion of quantum theory and experiments in condensed matter and materials physics with emphasis on current research problems.

PHYS 7000 Thesis Research 1-9cr.
Offered each semester. To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

PHYS 7025 Research Methods in Physics 1-9cr.
May be repeated for credit. Maximum credit of six hours for an M.S. degree. A study of experimental and theoretical research methods

the design and execution of experiments and their analyses. Section number will correspond with credit to be earned.

PHYS 7040 Examination or Thesis Only 0cr.
Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

PHYS 7050 Dissertation Research 1-12cr.
To be repeated for credit until dissertation is accepted.

Political Science

All 6000-level courses require consent of the department.

POLI 1000 Fundamental Issues of Politics 3cr.
Offered each semester. An introduction to the central questions at issue in politics with special emphasis on their significance for the American scene.

POLI 1010 Contemporary Issues of Politics 3cr.
An examination of the current issues and problems of national and international politics.

POLI 2151 American Government 3cr.
Offered each semester. A survey of the principles, structure, processes, and functions of American government with emphasis on the national government.

POLI 2156 Government of Louisiana 3cr.
A general survey of state and local government and politics in Louisiana.

POLI 2157 Public Policy 3cr.
A general survey of public policies in the United States and other political systems emphasizing their effect on domestic politics.

POLI 2158 Issues in Black Politics 3cr.
A survey of black political movements in the United States with emphasis on contemporary problems. Special attention will be given to black ideologies, styles of political participation, and leadership development.

POLI 2200 Judicial Process 3cr.
A study of legal systems with emphasis upon the role of American courts and judges in administering justice and making law.

POLI 2450 Current Issues in Criminal Justice 3cr.
A survey of the criminal justice system from arrest to appeal with emphasis on major problems and dilemmas, such as capital punishment, plea bargaining, search and seizure, legalization of drugs, and other contemporary issues. Special attention will be given to court decisions defining the rights of defendants and the practical realities of criminal law in Louisiana.

POLI 2500 Introduction to Political Theory 3cr.
A survey of theories of the nature of government and the relationships between the individual and the political order, drawing upon contemporary and classical sources.

POLI 2600 Introduction to Comparative Government 3cr.
A survey of the political institutions of the major democratic powers of Europe and of Russia.

POLI 2700 Introduction to World Politics 3 cr.
A general survey of the basic principles of world politics with emphasis on the international relations of the United States.

POLI 2900 Methods of Political Research 3cr.
Offered each semester. Prerequisites: 30 credit hours and POLI 2151, 2600 and 2700. A survey of the principal methods of political research, including conceptualization and hypothesis testing. The course will introduce computing on personal computers and mainframes as a tool of contemporary political research; students will be familiarized with operating systems, text editing, and data analysis.

POLI 2990 Independent Reading and Research in Political Science 1cr.
Prerequisite: consent of department. A readings course dealing with scope and methods of political science.

POLI 2993 Special Topics In Political Science 3cr.
Prerequisite: consent of department. Topic may vary from semester to semester. May be repeated once for credit.

POLI 3595 Academic Year Abroad: Special Topics in Political Science 3cr.
This course is only offered through UNO's Academic Year Abroad (AYA) in Innsbruck, Austria and can be repeated once for credit.

POLI 3605 Political Science and Practical Politics 3cr.
The course includes classroom discussions on selected readings, visiting speakers experienced in practical politics and a research project in the area of the practical politics, involving interviewing, sampling, and other techniques of empirical research.

POLI 3680 Politics and the Cinema 3cr.
A critical examination of the relationships between cinema and politics with attention to the role of cinema in the transmission of political information and ideas and the impact of the political decisions on the form and content of cinema.

POLI 3900 Polimetrics 3cr.
Prerequisites: POLI 2900 and MATH 1115 or 1125 and 1140. Introduction to the application and utility of scientific and mathematical methodology in the analysis of political phenomena. Special attention is given to the development of concepts generalizations and explanatory themes within political science as well as the use of various mathematical measurements of political phenomena and behavior.

POLI 3995 Independent Readings in Political Science 1-3cr.
Prerequisite: consent of department and an overall grade-point average of 3.2. Amount of credit to be determined at the time of registration. Section number will correspond with credit to be earned. This course may be repeated for a total of six credit hours. A readings course dealing with the scope and method of political science, this course is designed for superior advanced undergraduates. Political Science courses 3995 and 3998 may not be taken, either singly or jointly, for more than a total of nine credit hours. Political Science courses 3995, 3998, 4990, and 4991 may not be taken, either singly or jointly, for more than a total of 12 credit hours.

POLI 3998 Internship in Political Science 3cr.
Prerequisite: consent of instructor and grade-point averages of 3.0 overall and 3.2 in political science. Each semester the department makes available a limited number of internships with the city of New Orleans and other governmental agencies in the metropolitan area as well as in Washington, D.C. Internships provide an opportunity to learn about government from the perspective of the participant. Interns usually work 8 hours a week during a Fall or Spring semester, at times mutually agreeable to the individual and the agency. In addition, students must attend discussion sections on campus. This course may be repeated once for credit for a total of six hours. Political science courses 3995 and 3998 may not be taken, either singly or jointly, for more than a total of nine credit hours. Political Science courses 3995, 3998, 4990, and 4991 may not be

taken, either singly or jointly, for more than a total of 12 credit hours.

POLI 4170 The Politics of Public Policy 3cr.
An examination of the American public policy process and policy theory, covering the major concepts, controversies, and states of policy making as well as policy content.

POLI 4210 Politics of Metropolitan Areas 3cr.
An examination of the growth and problems of metropolitan areas, with special emphasis on the political fragmentation and integration of metropolitan governments.

POLI 4410 American Constitutional Law 3cr.
Prerequisite: POLI 2200 or consent of department. A study of the law of the Constitution and the place of the Supreme Court in the American political system; critical examination of separation of powers, judicial review, federalism and federal powers.

POLI 4420 The American Constitution and Civil Liberties 3cr.
Prerequisite: POLI 2200 or consent of department. An examination of the political relevance of major federal constitutional limitations, property rights, First Amendment freedoms, the rights of criminal defendants and ethnic minorities.

POLI 4440 Urban Judicial Process 3cr.
Prerequisite: POLI 2200 or consent of department. A study of judicial processes involved in metropolitan development and in the application of environmental controls to urban areas.

POLI 4530 American Political Theory 3cr.
A study of major American political ideas, including American conceptions of liberty, equality, and the role of government.

POLI 4550 Communist Political Thought 3cr.
A study of the historical origins of communism in western and eastern Europe: an analysis of the classics from Marx to the present with emphasis on communist theory of state and law, democracy and federalism.

POLI 4570 Contemporary Political Theory 3cr.
Examines selected fundamental problems by exploring the works of important representative theorists.

POLI 4600 Political Parties & Politics 3cr.
A study of the political process in the United States with emphasis on political parties, pressure groups, and public opinion.

POLI 4601 Voters and Elections 3cr.
A study of electoral behavior in the United States. Topics include determinants of the vote, election turnout, candidate images, issues and elections, economic conditions and voting, partisanship, and the media in elections.

POLI 4621 Public Opinion 3cr.
An analysis of contemporary public opinion and communication as aspects of the political process, with emphasis upon opinion formation, manipulation, and the mass media.

POLI 4630 The American Presidency 3cr.
Examines the constitutional and political development of the institutions, the selection process, executive decision-making, and relations with those inside and outside of government in making public policy.

POLI 4640 The Legislative Process 3cr.
A general study of the legislative process in Congress with special attention to the role of interest groups, constituency, and party in the formation of public policy.

POLI 4650 Southern Politics 3cr.
This course focuses on politics in the South, especially since the mid-twentieth century, emphasizing the following themes: race and politics; the impact of the civil rights movement; the evolution of party competition; and the influence of industrialization and urbanization.

POLI 4653 Political Socialization of American Blacks 3cr.
A study of the processes and agents of political socialization. Although the mainstream American experience will be emphasized, socialization within subcultures in the United States and socialization to other systems will be included.

POLI 4670 Women and Politics 3cr.
A study of feminist political thought, and of women's political movements, political issues, and political behavior and attitudes in the United States and in other countries.

POLI 4696 Washington Center Internship 3-6cr.
The Washington, D.C. Internship Program is offered in cooperation with the Washington Center for Internships and Academic Seminars. Students of junior-level or higher standing and a grade-point average of 2.5 or better are eligible to participate in the Program. The program is conducted in Washington, D.C. and consists of an internship of four-and-a-half workdays per week, a three-hour course one night a week, and a major research paper. Participants can earn 12 credit hours during a fall or spring semester (nine hours in summer). Not for graduate credit.

POLI 4697 Washington Center Special Topics 3cr.
The Washington, D.C. Internship Program is offered in cooperation with the Washington Center for Internships and Academic Seminars. Students of junior-level or higher standing and a grade-point average of 2.5 or better are eligible to participate in the Program. The program is conducted in Washington, D.C. and consists of an internship of four-and-a-half workdays per week, a three-hour course one night a week, and a major research paper. Participants can earn 12 credit hours during a fall or spring semester (nine hours in summer). Not for graduate credit.

POLI 4698 Washington Center Independent Research 3cr.
The Washington, D.C. Internship Program is offered in cooperation with the Washington Center for Internships and Academic Seminars. Students of junior-level or higher standing and a grade-point average of 2.5 or better are eligible to participate in the Program. The program is conducted in Washington, D.C. and consists of an internship of four-and-a-half workdays per week, a three-hour course one night a week, and a major research paper. Participants can earn 12 credit hours during a fall or spring semester (nine hours in summer). Not for graduate credit.

POLI 4700 Latin American Government and Politics 3cr.
An analysis and survey of the governmental and political processes of Latin America and their contributions to modern government.

POLI 4705 US and Latin American Relations 3cr.
A study of US relations with Latin America and the Caribbean Basin with an emphasis on current bilateral and regional political issues.

POLI 4710 Politics of the Developing Areas 3cr.
An analysis of issues relevant to politics in the developing nations with emphasis on the relationship of politics to rapid economic and social change and evaluation of policies intended to promote development.

POLI 4720 African Politics 3cr.
An overview of the political and economic challenges faced by African countries, the range of responses adopted, and the role of politics and the state in shaping both the choice of responses and their effectiveness.

POLI 4730 Environmental Politics in the Developing World 3cr.
A survey of interactions between development strategies and the environment. Topics include the environmental ramifications of large development projects, different systems of property rights, decentralization, international debt, and foreign aid in the context of forests, rivers, rangeland, wildlife, and groundwater. Examples are drawn from throughout the developing world.

POLI 4770 Modern Political Systems 3cr.
A comparative analysis of selected institutional and functional problems of both modern democratic and modern authoritarian political systems.

POLI 4780 Comparative Democratization 3cr.
An exploration of the nature of democracy and the challenges of democratization drawing on experiences with democratization in Southern Europe, Latin America, Eastern Europe, and Africa. Experiences with and prospects for further democratization in other regions also are considered.

POLI 4800 Concepts and Patterns of International Politics 3cr.
A systematic study of interaction between nation states, including a survey of the principal theories concerning international society.

POLI 4820 International Organization 3cr.
A review of the origins and types of international organizations, both intergovernnmental and international non-governmental, and their role in the contemporary international system. The challenges and theoretical implications of issues such as humanitarian aid, peacekeeping, and economic, social, and political development will be discussed.

POLI 4840 International Regionalism 3cr.
An analysis and comparison of selected international regional organizations, the relationship between world and regional organizations, and economic and political integration.

POLI 4850 The Politics of International Economic Relations 3cr.
An introduction to the field of international political economy focusing on four issues: the relationship between politics and markets, postwar developments in relations among advanced industrial societies, the relationship between advanced industrial and developing societies, and the impact of globalization on both developed and developing societies.

POLI 4860 Principles of International Law 3cr.
A study of the development and theoretical foundations of international law; the problems of jurisdiction; treaty law; the law of peace, war, and neutrality; and the methods available for the settlement for international disputes.

POLI 4870 American Foreign Policy 3cr.
A study of the national interest as the guiding consideration in the development of American foreign policy from the beginning to the present. The importance of the constitutional framework, presidential and congressional leadership, pressure groups and public opinion, the changing world environment and the American response to it, particularly in recent years.

POLI 4880 Comparative Foreign Policy 3cr.
A comparative analysis of the determinants of foreign policy interactions between nation-states. The influence of governmental systems, legitimacy, size, levels of development, political culture, and leadership styles on foreign policy calculations and behavior.

POLI 4885 Issues in Conflict and Diplomacy 3cr.
An examination of the interaction of conflict with diplomacy. Conflict and diplomacy are studied analytically and operationally in terms of their limitations and possibilities in advancing and/or defending states' interests.

POLI 4890 Economic Statecraft 3cr.
This course examines uses of economic statecraft in both US foreign policy and international relations. Topics include, but are not limited to, analyzing the choice of economic versus military or diplomatic coercion, achieving successful coercion without the use of military force, the moral limitations of economic sanctions, enhancing the credibility of a threat, and the importance of domestic institutions in targets and senders of sanctions.

POLI 4900 Introduction to Techniques of Political Data Analysis 3cr.
Prerequisite: POLI 2900 or consent of department. A beginning course in the analysis of political data. Students will be introduced to computer-assisted statistical analysis and will perform original research. Not for graduate credit.

POLI 4910 Political Polling 3cr.
Prerequisite: POLI 2900 or consent of department. The process of conducting survey research: research design conceptualization, operationalization, interview-schedule design, sampling theory, drawing the sample, interviewer recruitment and training, supervision, coding, data processing, elaboration, analysis, presentation of results.

POLI 4990 Special Topics in Political Science 3cr.
Topic may vary from semester to semester. Students may register for this course more than once to a maximum of nine hours. POLI 3995, 3998, 4990, and 4991 may not be taken, either singly or jointly, for more than a total of 12 credit hours.

POLI 4991 Senior Honors Thesis 3cr.
Prerequisites: consent of department and director of the Honors Program. Design and execution of an honors thesis. This course must be repeated once in order to graduate with honors in political science. Political Science courses 3995, 3998, 4990, and 4991 may not be taken either singly or jointly for more than a total of 12 credit hours. Not open to graduate students.

POLI 4999 Political Science Overview 1cr.
This is the capstone course, required of graduating political science majors, which provides an overview of the discipline. The course features weekly lectures by political science faculty along with class discussion. It is open to political science majors only, and it is not open to graduate students.

POLI 6001 Introduction to Political Research 3cr.
Introduction to the philosophy of science and research design. (Required of all graduate students.)

POLI 6002 Methods of Political Research I 3cr.
Techniques of data analysis with an emphasis on the general linear model and an introduction to maximum likelihood estimation. (Required for all graduate students.)

POLI 6003 Methods of Political Research II 3cr.
Prerequisites: POLI 6001 and POLI 6002. Techniques of data analysis with an emphasis on maximum likelihood estimation and time series. (Required of Ph.D. students.)

POLI 6004 Advanced Methods of Political Research 3cr.
Prerequisites: POLI 6001 and 6002. Theoretical implications and practical applications of advanced quantitative approaches to research. Specific topics will vary.

POLI 6100 Theories of Public Policy 3cr.
An examination of a variety of models of the public policy making process from agenda-setting through evaluation and feedback, with particular attention to explanations of policy stability and

policy dynamics. Examined theories include rational choice, incrementalism, neo-institutionalism and path dependency, multiple streams, punctuated equilibrium, advocacy coalition framework, and political strategy, among others.

POLI 6105 Bureaucratic Politics and Public Policy 3cr.
Studies the internal operations of the bureaucracy, focusing on decision making and discretion. Particular attention is given to external relations and the role of bureaucracy in public policy making.

POLI 6210 Seminar on Urban Political Systems 3cr.
A review of the literature dealing with urban political processes. Topics will include metropolitan fragmentation and integration, intra-jurisdictional structural characteristics, urban policy makers, structures of community power, and the city within the federal system.

POLI 6211 Seminar on Urban Political Analysis 3cr.
Prerequisite: POLI 6210 or consent of department. A research-oriented seminar in urban political processes and policies. Inferential techniques employed in the analysis of urban phenomena will be examined, and students will be required to engage in original research endeavors. Non-Ph.D students may take either 6211 or 6212. Ph.D. students may take both 6211 and 6212.

POLI 6212 Seminar on Urban Political Analysis 3cr.
Prerequisite: POLI 6210 or consent of department. A research-oriented seminar in urban political processes and policies. Inferential techniques employed in the analysis of urban phenomena will be examined, and students will be required to engage in original research endeavors. Non-Ph.D students may take either 6211 or 6212. Ph.D. students may take both 6211 and 6212.

POLI 6230 Seminar in Public Policy Formation 3cr.
Emphasizes the policymaking process from agenda setting through impact and evaluation. It considers the roles of government structure and the external environment on how public policy is made and carried out.

POLI 6240 Seminar in American Public Policy 3cr.
Offers an in-depth look at substantive issues and issue networks in public policymaking.

POLI 6245 Seminar in American Foreign Policy and National Security Affairs 3cr.
This seminar will explore the theoretical concepts relating to the process of policy-making, the interface between domestic, foreign, and national security policies and politics, the role of bureaucratic politics and the thrust and content of American foreign and security policies.

POLI 6250 Seminar in Comparative Urban Politics 3cr.
Methodology in the study of comparative urban political systems, the new urbanism and traditional society, problems of planning and processes of communication, urbanism and political structures, political socialization in urban environments, urbanism and ecology, minority groups in the urban politics of various systems.

POLI 6310 Seminar in State and Local Government 3cr.
A seminar in state and local government with special emphasis on comparative state politics and political systems.

POLI 6410 Seminar in Constitutional Law 3cr.

POLI 6420 Seminar on Appellate Courts 3cr.
This seminar is designed to familiarize students with the literature on appellate courts (including the US Supreme Court, the US Court of Appeals, the state courts of last resort, and the Constitutional Courts of other countries). It will cover decision-making, judicial selection, the effects of public opinion on courts and the effect of courts on public opinion, impact and compliance, and interest-group influence. The courts will be studied as political institutions and policymakers peopled by political actors as opposed to the common view that they are formal, legal, and nonpolitical entities.

POLI 6430 Seminar on Trial Courts 3cr.
A seminar dealing with the literature on the scientific study of lower courts and criminal justice.

POLI 6450 Seminar in Administrative Law 3cr.

POLI 6510 Seminar in Political Theory 3cr.
Seminar in Political Theory. May be repeated once for credit with consent of the Department.

POLI 6570 Seminar in Contemporary Political Theory 3cr.
Seminar in Contemporary Political Theory. May be repeated once for credit with consent of the Department.

POLI 6580 Seminar in Marxist Theory 3cr.
This seminar deals with the development of Marxist political and social thought, the place of Marxism in the history of western ideas, and the contemporary importance and relevance of Marxism. The following aspects will be especially emphasized: Marx's concept of alienation, the phenomenon of revisionism, the restructuring of Marxism under Soviet Communism, the Maoist deviation, attempts to integrate Marx and Darwin (Engels) and Marx and Freud (Marcuse).

POLI 6600 Seminar in American Politics 3cr.

POLI 6610 Seminar in Political Parties 3cr.

POLI 6620 Seminar in Voting Behavior and Participation 3cr.
An analysis of contemporary research on vote determinants, partisanship, issues and elections, economic influences, voter turnout, and political participation.

POLI 6625 Seminar in Public Opinion 3cr.
An analysis of contemporary research on individual and contextual sources of public opinion.

POLI 6630 Seminar in Political Socialization 3cr.
A study of the social process as related to political beliefs, norms, and standards of behavior. Topics to be covered will include the content of socialization, the circumstances under which learning occurs, the agents of socialization and the impact of political learning on the individual's political behavior.

POLI 6640 Seminar in Black Politics 3cr.

POLI 6641 Research on Minority Politics 3cr.
Prerequisite: POLI 6640 or consent of department. A research-oriented seminar in minority politics. Inferential techniques employed in the analysis of minority politics will be examined, and students will be required to engage in original research endeavors.

POLI 6650 Seminar in Women and Politics 3cr.
A study of feminist political thought and research on the importance of gender in social movements, political attitudes and behavior, political leadership, and public policy.

POLI 6670 Seminar in Presidency Research 3cr.
Investigation into problems, data, and prospects in researching the American presidency. Examines the presidency in relation to other governmental and nongovernmental actors, emphasizing public policy linkages.

POLI 6675 Seminar in Presidential-Congressional Relations 3cr.
A study of the constitutional foundations of executive-legislative relations, resources and constraints each possess, explaining presidential success in Congress, and the causes and consequences of divided government.

POLI 6680 Seminar in Legislative Behavior 3cr.
This course will seek to provide an overview of contemporary research on legislative behavior. Most of the existing literature focuses on the national Congress but the course will also be concerned with state legislatures as well. The seminar will include an extensive review of the literature and statistical analysis of legislative roll call voting.

POLI 6700 Seminar in Comparative Politics 3cr.

POLI 6710 Seminar in Developing Political Systems 3cr.
Political modernization, ideology and political development, economic factors in political development, traditional versus modern sectors, role of the military, development of bureaucracies, guided democracy, charismatic leadership.

POLI 6720 Seminar in Developed Political Systems 3cr.
Criteria of development, structural-functional approach to analysis of developed political systems, communications models, interest articulation and aggregation, institutional frameworks.

POLI 6730 Seminar in Political Change and Development 3cr.
Theories of development; relationship between political and economic development, the revolution of rising expectations, political infrastructure, levels of development.

POLI 6740 Seminar in Latin American Politics 3cr.
The major alternatives for change: democratic reform or violent revolution; political infrastructure, interest aggregation and the acceleration of demands; the changing role of the military; the rise of urban terrorism; political heritage; personalism; dictatorship; role of the church.

POLI 6750 Seminar in Comparative Public Policy 3cr.
Comparative analysis of actors, preferences and strategic environments, including political institutions, to explain a wide range of policy outputs in a broad comparative context.

POLI 6760 Seminar in Comparative Political Economy 3cr.
Methods of political economy, including rational choice theory, game theory, spatial modeling, and the new institutionalism. Theoretical developments related to social movements and collective action, problems of delegation. Applications to particular topics, such as voting, property rights, economic reform, and corruption.

POLI 6810 Seminar in International Relations Theory 3cr.
This course will provide an overview of contemporary research on international relations. It is organized around points of common interest to scholars of international relations, including such concepts as the underlying nature of the international system, the causes of conflict between states, and possible sources of cooperation between states.

POLI 6820 Seminar in International Politics and Organizations 3cr.
This course will provide an overview of contemporary research on international organizations and international law. It is organized around points of common interest to scholars of international relations, such as the emergence and evolution of international organizations, the creation of international laws and norms, and the impact of these institutions on nation-state behavior.

POLI 6850 Politics of International Economics Relations 3cr.
This seminar is an introduction to the field of international political economy. Topics may include but are not limited to major approaches to political economy and international political economy in political science, cooperation and regime theory, trade and finance, globalization, regional integration, and the use of economic sanctions in international politics.

POLI 6885 Seminar in International Conflict 3cr.
The purpose of this course is to analyze the most important theories regarding the causes of international war and conflict. It will introduce students to a wide range of research on international conflict. Topics may include polarity, power transition theory, hegemony, arms races, alliances, deterrence theory, diversionary theories, regime types, rivalry, civil wars, the escalation and diffusion of wars, and trade and military conflict.

POLI 6990 Independent Research 3cr.
Independent research in the graduate student's area of specialization, under the direction of a designated member of the graduate faculty.

POLI 7000 Thesis Research 1-9cr.
To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

POLI 7040 Examination Or Thesis Only 0cr.
Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

POLI 7050 Dissertation Research 1-9cr.
Preparation of dissertation by Ph.D. candidate under direction of major professor and dissertation committee. Section number will correspond with credit to be earned. To be repeated for credit until dissertation is accepted.

Psychology

General Prerequisites: with the exception of Psychology 1500 and 1520, students may not enroll in psychology courses unless they are eligible to enroll in Mathematics 1115 or 1125 and English 1157 or have credit in mathematics and English at the college level.

PSYC 1000 General Psychology 3cr.
Offered each semester. A general introduction to the scientific study of the behavior of organisms. An honors section (1009) is available for qualified students.

PSYC 1009 General Psychology 3cr.
Offered each semester. A general introduction to the scientific study of the behavior of organisms. An honors section (1009) is available for qualified students.

PSYC 1310 General Statistics 3cr.
Offered each semester. Prerequisites: PSYC 1000 or 2200 and MATH 1115 or consent of department. Frequency distributions, measures of central tendency and dispersion, correlation, discrete and continuous probability functions, tests of significance including t and chi-square. Introduction to analysis of variance, regression, and non-parametric tests of significance. Two hours of lecture and two hours of laboratory.

PSYC 1500 The Psychology of Personal Adjustment 3cr.
Offered each semester. The psychology of daily living with emphasis on identification and coping with the stressors of life. Topics include personality, stress and anxiety, interpersonal relationships, and substance abuse.

PSYC 1520 Human Sexual Behavior 3cr.
Offered each semester. Aspects of human sexuality including behavior, anatomy, physiology, cross-cultural comparisons, and historical and current perspectives.

PSYC 2091 Special Topics in Psychology 3cr.

Prerequisite: PSYC 1000 or 2200 or consent of department. Topics will vary from semester to semester. This course may be repeated once for credit.

PSYC 2110 Child Psychology 3cr.
Offered each semester. Prerequisite: PSYC 1000 or 2200 or consent of department. Study of the physical, social, and psychological development of the child.

PSYC 2120 Adolescent Psychology 3cr.
Offered each semester. Prerequisite: PSYC 1000 or 2200 or consent of department. Study of the physical, social, and psychological development of the adolescent.

PSYC 2130 Adult Development and Aging 3cr.
Prerequisite: Psychology 1000 or 2200 or consent of department. Study of the physical, social, and psychological development of the adult.

PSYC 2200 Educational Psychology 3cr.
Offered each semester. Applications of psychology to the educative process.

PSYC 2300 Experimental Design and Methodology 3cr.
Offered each semester. Prerequisite: PSYC 1310 or a first course in statistics or consent of department. Introduction to scientific method, experimental and statistical design, scientific writing, and psychophysical and psychological research methodology. Two hours of lecture and two hours of laboratory.

PSYC 2320 Introduction to Biopsychology 3cr.
Prerequisites:PSYC 1000 or BIOS 1083 or BIOS 1303. The study of the brain and nervous system, sensory processing, movement, development, sleep and arousal, motivation, emotion, learning, memory, cognitive function, and language.

PSYC 2340 Motivation and Emotion 3cr.
Prerequisite: PSYC 1000 or consent of department. Survey of classes of behavior seen in human and infra-human forms, including general activity and exploration, consummatory behavior, aggression, social affiliation, social approval, achievement, and goal-setting behavior; discussion of concepts of instinct, drive, habit, reinforcement, expectancy, and incentive.

PSYC 2380 Psychology of Cognition 3cr.
Prerequisite: PSYC 1000 or 2200 or consent of department. The study of concept formation, problem-solving, understanding, and language with emphasis on the development thereof; theory, research, and application.

PSYC 2400 Social Psychology 3cr.
Prerequisite: three hours of psychology or sociology or consent of department. Survey of the cultural forces as they affect attitudes, social learning, perception, and communication of the individual and the group.

PSYC 3090 Independent Reading and Research in Psychology 1-6cr.
Offered each semester. Prerequisite: PSYC 2300 and consent of department. The individual student is responsible for the selection of the area of reading or research. May be repeated for a total of six semester hours credit. Section number will correspond with credit to be earned.

PSYC 3095 Field Experience in Applied Psychology 3cr.
Prerequisites: Psychology 2300 completion of a 4000-level content course in an area relevant to the proposed field experience, and consent of department. Students will be placed in an agency or office setting which has been approved by the appropriate departmental committee, to gain supervised experience in the applications of psychology in field settings. Students usually work eight hours a week at times mutually agreeable to the individual and the applied setting. In addition, students must meet regularly with the faculty supervisor, and the student's work must be evaluated by both the faculty supervisor and the site supervisor. May be repeated once for credit.

PSYC 3099 Senior Honors Thesis 1-6cr.
Offered each semester. Prerequisite: PSYC 2300, consent of department, consent of director of the Honors Program, and grade point averages of at least 3.5 in psychology and 3.25 overall. Senior honors thesis research in psychology under the direction of a faculty member. Students may earn up to a total of six credits.

PSYC 4000 Psychology Comprehensive Exam 0cr.
Prerequisites: Graduating seniors and consent of the department. This is a required, zero credit course, that psychology seniors must take in their final semester in order to graduate. This course meets twice. Once for an organizational meeting, and once to take a comprehensive psychology exam.

PSYC 4010 History of Modern Psychology 3cr.
Fall semester. Prerequisite: PSYC 2300 or consent of department. A historical survey of psychology with special reference to schools of psychology.

PSYC 4091 Special Topics in Psychology 3cr.
Prerequisite: PSYC 2300 or consent of department. The topics will vary from semester to semester. This course may be repeated once for credit.

PSYC 4100 Developmental Psychology 3cr.
Fall semester. Prerequisite: PSYC 2300 or consent of department. Emphasis on learning, motivation, perceptual, and verbal processes in child behavior.

PSYC 4310 Intermediate Statistics 3cr.
Spring semester. Prerequisite: PSYC 2300 or consent of department. An intensive treatment of descriptive and inferential statistics, including an introduction to the analysis of variance. Consideration is given to special correlation procedures, including multiple prediction. Two hours of lecture and two hours of laboratory.

PSYC 4320 Physiological Psychology 3cr.
Prerequisite: PSYC 2300 and 2320 or consent of department. An introduction to the function of the nervous system with respect to sensation, perception, learning, and motivation. Two hours of lecture and two hours of laboratory.

PSYC 4330 Comparative Psychology 3cr.
Prerequisite: PSYC 2300 or consent of department. Similarities and differences in behavior between and within various animal species, influences of heredity and experience on behavior. Two hours of lecture and two hours of laboratory.

PSYC 4350 Psychology of Learning 3cr.
Prerequisite: PSYC 2300 or consent of department. The study of behavior from the standpoint of learning. A critical review and analysis of recent experimental literature in the learning area plus a consideration of the major theories of learning. Two hours of lecture and two hours of laboratory.

PSYC 4365 Sensation and Perception 3cr.
Prerequisite: PSYC 2300 or consent of department. A consideration of the sensory systems (including vision, audition, olfaction, gustation, somesthesis) and a survey of perceptual phenomena, scaling, psychophysics, the organization of perception, perceptual learning, and sensation-perception distinctions.

PSYC 4510 Personality 3cr.
Spring semester. Prerequisite: Six hours of psychology courses at

the 2000 level or consent of department. Determinants and dynamics of personality.

PSYC 4530 Introduction to Abnormal Psychology 3cr.
Fall semester. Prerequisite: six hours of psychology courses at the 2000 level or above or consent of department. An introduction to personality maladjustment and mental disorder.

PSYC 4550 Clinical Psychology 3cr.
Prerequisite: PSYC 2300 or consent of department. Introduction to the history, clinical techniques, research methods, ethics, and political concerns of clinical psychology.

PSYC 4600 Psychological Tests and Measurements 3cr.
Spring semester. Prerequisite: PSYC 2300 or consent of department. Test construction, standardization, validation; intelligence, clerical, mechanical, spatial aptitude tests; interest and personality tests; test batteries. Two hours of lecture and two hours of laboratory.

PSYC 4700 Introduction to Personnel and Industrial Psychology 3cr.
Prerequisite: PSYC 2300 or consent of department. A review of scientific methodology and statistical concepts applicable to the industrial situation; followed by the contributions of psychology to personnel selection, training, human relations, environmental engineering, organizational structure, and consumer research.

PSYC 6050 Seminar on Professional Problems 3cr.
Prerequisite: consent of department. Review of licensing requirements in Louisiana and other states; ethical standards in practice, teaching, and research; and laws governing the use of humans and animals in research. Review of research grant application procedures, practicum responsibilities, and an overview of standard practices in the instruction of psychology courses.

PSYC 6090 Independent Research in Psychology 3cr.
Prerequisite: consent of department. This course may be repeated for credit. Research experience with psychological topics not being taken concurrently for thesis or dissertation credit. The individual student is responsible for the selection of the area of research.

PSYC 6091 Seminar 1cr.
Offered each semester. All graduate students will be expected to participate in a report and discussion group in the field of psychology. Must be taken for credit a minimum of four times.

PSYC 6101 Fundamentals of Applied Developmental Psychology I 3cr.
Prerequisite: admission to graduate program in psychology or consent of department. A review of research and theory in life-span developmental psychology. Special consideration will be given to age-related changes in cognitive structure, language acquisition, sensation and perception, experiential influences, and social-emotional development.

PSYC 6102 Fundamentals of Applied Developmental Psychology II 3cr.
Prerequisite: PSYC 6101. This course is concerned with how psychological research and intervention strategies are combined in health and human services settings. Social policy and available services will be discussed.

PSYC 6130 Infant Care and Stimulation 3cr.
Prerequisite: PSYC 6101. The course will deal with pre- and postnatal influences on early development from conception through three years of age. Topics will include prenatal development, learning, cognition, sensory processes, and social factors.

PSYC 6150 Psychology of Aging 3cr.
Prerequisite: PSYC 6101. A review and evaluation of research and theories of the aging process. Emphasis will be placed on the application of basic research in neuropsychology, psychophysiology, psychopharmacology, cognition, environmental issues, interpersonal relations, stress and coping, and clinical issues.

PSYC 6170 Problems in Social-Emotional Development 3cr.
Prerequisite: PSYC 6101. A review and evaluation of research in social-emotional development throughout the life-span. Emphasis will be given to the determinants of deviant social-emotional development in childhood, maturity, and senescence. Techniques for the assessment and management of deviant development will be presented.

PSYC 6180 Problems in Cognitive and Intellectual Development 3cr.
Prerequisite: PSYC 6101. A review of the theoretical, methodological, and applied issues in cognitive and intellectual development across the life-span. Emphasis is placed on research and its practical application to cognitive and intellectual deficiencies.

PSYC 6191 Practicum in Applied Developmental Psychology 3-6cr.
Prerequisites: PSYC 6050 6101 6311 6312 6350 6801 and either 6102 or 6802. Supervised experience in various fields of applied developmental psychology. Amount of credit to be stated at time of registration. May be repeated for credit.

PSYC 6195 Advanced Seminar in Applied Developmental Psychology 3cr.
Prerequisite: PSYC 6101 or consent of department. The topics vary from semester to semester and may include current topics in social, personality, and cognitive development, developmental methods, or new or developing areas of application. This seminar may be repeated for credit.

PSYC 6291 Advanced Seminar in Educational-Developmental Psychology 3cr.
The topics will be varied from semester to semester and may include such areas as contemporary theory, research problems, and controversial issues in educational and developmental psychology.

PSYC 6292 Advanced Seminar in Educational-Developmental Psychology 3cr.
The topics will be varied from semester to semester and may include such areas as contemporary theory, research problems, and controversial issues in educational and developmental psychology.

PSYC 6311 Advanced Statistics I 3cr.
Prerequisite: admission to graduate program in psychology or consent of department. Machine calculation, coding, measures of centrality and variation, regression, correlation, prediction, probability, statistical inference, chi square, t and F distributions, simple analysis of variance, multiple prediction, reliability and validity of measurements.

PSYC 6312 Advanced Statistics II 3cr.
Prerequisites: PSYC 6311. Complex analysis of variance designs: factorial, treatments-by-subjects, groups-within-treatments, mixed, random replications, Latin and Greco-Latin Squares. Analysis of covariance, trend tests, non-parametric tests, sequential analysis, curve fitting.

PSYC 6350 Advanced Learning 3cr.
Prerequisite: admission to graduate program in psychology or consent of department. An advanced study of the principles and theories of learning, including both animal and human learning. Two hours of lecture and two hours of laboratory.

PSYC 6391 Seminar in Experimental Psychology 3cr.
The topics will be varied from semester to semester and will include: discrimination learning, avoidance learning, verbal behav-

ior, animal behavior, brain stimulation, and behavior. This seminar may be repeated once for credit.

PSYC 6392 Seminar in Experimental Psychology 3cr.
The topics will be varied from semester to semester and will include: discrimination learning, avoidance learning, verbal behavior, animal behavior, brain stimulation, and behavior. This seminar may be repeated once for credit.

PSYC 6395 Advanced Seminar in Statistics 3cr.
Prerequisites: PSYC 6311 6312. The topics will vary from semester to semester and may include such topics as Regression, Multivariate Analysis, Factor Analysis and Psychometric Theory. The seminar may be repeated for credit.

PSYC 6400 Social Psychology 3cr.
(SOC 6573 and PSYC 6400 are cross-listed) Analysis of the relationship between human behavior and social context, emphasizing the impact of social forces on social action and cognition. Topics include theoretical paradigms in social psychology, language use and interaction, small groups, self and identities, collective behavior, attitudes and behavior. Critical analysis of existing theory and research methodology will be considered for each topic.

PSYC 6500 Clinical Psychology 3cr.
Prerequisite: consent of department. An introduction to the problems of psychodiagnosis and psychotherapeutic techniques.

PSYC 6550 Psychopathology 3cr.
Prerequisite: consent of department. An introduction to the experimental analysis of deviant behavior.

PSYC 6610 The Measurement of Intelligence 3cr.
Prerequisite: consent of department.

PSYC 6620 Developmental Assessment of Psychopathology 3cr.
Prerequisite: consent of department. The theory and techniques used in the assessment of psychopathology from a developmental perspective.

PSYC 6630 Measurement of Behavior 3cr.
Prerequisite: consent of department. The techniques and theory of behavior measurement with emphasis on problems of data collection.

PSYC 6792 Practicum In Psychology 1-6cr.
Supervised experience in various fields of psychology. Section number will correspond with the credit to be earned.

PSYC 6793 Practicum In Psychology 1-6cr.
Supervised experience in various fields of psychology. Section number will correspond with the credit to be earned.

PSYC 6794 Practicum In Psychology 1-6cr.
Supervised experience in various fields of psychology. Section number will correspond with the credit to be earned.

PSYC 6801 Fundamentals of Applied Biopsychology I 3cr.
Prerequisite: admission to graduate program in psychology or consent of department. Review of anatomical, physiological, and biochemical bases of behavior with special consideration of the consequences of disease or injury-caused disturbances.

PSYC 6802 Fundamentals of Applied Biopsychology II 3cr.
Prerequisite: PSYC 6801 and an advanced undergraduate or graduate neuroanatomy lab. Lectures and readings on the application of the fundamental principles of neurology and biology to the traditional subdisciplines of biopsychology, including sensation and perception, control of movement, emotion, motivation, learning and memory, and disorders of thought and mood.

PSYC 6810 Psychopharmacology 3cr.
Prerequisite: PSYC 6801. Interrelations of human biochemistry and behavior with particular attention to neural transmitters, the endocrine system, and clinical applications.

PSYC 6820 Psychophysiology 3cr.
Prerequisite: PSYC 6801. Review of physiological concomitants of normal and disturbed behavioral processes. Topics will include evoked potentials galvanic skin response and brainstem potentials. Two hours of lecture and two hours of laboratory.

PSYC 6830 Neuropsychology 3cr.
Prerequisite: PSYC 6801. Review and evaluation of research in and the diagnosis and treatment of brain dysfunction.

PSYC 6840 Behavioral Medicine 3cr.
Prerequisite: PSYC 6801. Summary of biological and behavioral interactions in the prevention, diagnosis, and treatment of psychosomatic disorders such as headaches, insomnia, sexual dysfunction, and cardiovascular diseases.

PSYC 6891 Practicum in Applied Biopsychology 3-6cr.
Prerequisites: PSYC 6050, 6101, 6311, 6312, 6350, 6801, and either 6102 or 6802. Supervised experience in various fields of applied biopsychology. Amount of credit to be stated at time of registration. May be repeated for credit.

PSYC 6895 Advanced Seminar in Applied Biopsychology 3cr.
Prerequisite: PSYC 6801 or consent of department. The topics vary from semester to semester and may include such current topics as brain function theory, biopsychological methods, or new or developing areas of application. This seminar may be repeated for credit.

PSYC 7000 Thesis Research 1-9cr.
To be repeated for credit until thesis is accepted. Section number will correspond with the credit to be earned.

PSYC 7010 Teaching of Psychology 3cr.
Requisites: Masters degree and consent of department. Supervised experience in teaching an undergraduate lecture class in psychology. Provides didactic and practical experience in designing a coherent course structure, developing a syllabus, using innovative teaching methods, designing effective exams, evaluating teaching effectiveness, and being sensitive to ethical issues involved in teaching and interacting with students.

PSYC 7025 Procedures and Problems in Psychological Research 3cr.
Prerequisite: for doctoral candidates only. This course may be repeated once for credit. Research experience with topics not planned for dissertation. The student is responsible for the selection of the area of research.

PSYC 7040 Examination or Thesis Only 0cr.
Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree)to pass the final examination to complete graduation requirements.

PSYC 7050 Dissertation Research 1-9cr.
Preparation of dissertation by Ph.D. candidate under direction of major professor and dissertation committee. Section number will correspond with credit to be earned. To be repeated for credit until dissertation is accepted.

PSYC 7191 Internship in Applied Developmental Psychology 6-9cr.
Offered each semester. Prerequisites: Completion of course work and general examination. Only open to Applied Developmental Psychology graduate students nominated by the Department of

Psychology and accepted by a departmentally-approved internship site. An internship normally involves the equivalent of 12 months of supervised full-time experience. To qualify as an internship, a minimum of 1500 hours at the site must be completed within 24 months. The internship is an intensive, advanced supervised experience required to be a practicing psychologist. May be repeated for credit. Pass/fail grading.

PSYC 7891 Internship in Applied Bioosychology 6-9cr.
Offered each semester. Prerequisites: Completion of course work and general examination. Open only to applied biopsychology graduate students nominated by the Department of Psychology and accepted by a departmentally-approved internship site. An internship normally involves the equivalent of 12 months of supervised full-time experience. To qualify as an internship, a minimum of 1500 hours at the site must be completed within 24 months. The internship is an intensive, advanced supervised experienced required to be a practicing psychologist. May be repeated once for credit. Pass/fail grading.

Quantitative Methods–Business and Economics

QMBE 2785 Introduction to Business and Economic Statistics 3cr.
Offered each semester. Prerequisite: BA 2780, MATH 1115 or 1125 and 1140. Descriptive statistics including measures of location and dispersion; classical probability theory; statistical inference including sampling, point and interval estimation and hypothesis testing; time series; index numbers.

QMBE 2786 Intermediate Business and Economic Statistics 3cr.
Prerequisite: BA 2780, MATH 2314 and concurrent enrollment in quantitative methods - QMBE 2787. Hypothesis testing; Chi-Squared distribution; analysis of variance; correlation; simple and multiple regression; non-parametric methods; forecating.

QMBE 2787 Business and Economics Statistics Laboratory 1cr.
Prerequisite: BA 2780, Math 2314, or equivalent. Concurrent enrollment in QMBE 2786. Laboratory course will demonstrate business applications or principles covered in Math 2314 and QMBE 2786. Students will use statistical software packages to analyze a variety of business-oriented datasets and produce appropriate reports.

QMBE 4400 Statistics for Managers 3cr.
Gives the statistical foundation needed for managerial decision making and is designed to prepare students for graduate study in business. Covers topics in probability, random variables, sampling theory, statistical inference and regression analysis. Not open to College of Business undergraduate majors. May not be taken for graduate credit. Students may not receive credit for both QMBE 2785 and QMBE 2786 and this course.

QMBE 4785 Advanced Regression and Correlation Analysis for Business and Economics 3cr.
Prerequisite: QMBE 2786 or equivalent or consent of department. Matrix techniques; linear regression and correlation theory, heteroscedasticity, autocorrelation and multicollinearity; two-stage least squares, maximum likelihood techniques; K-class estimators; computer use, research methods, and data sources.

QMBE 4786 Advanced Statistical Decision Analysis for Business and Economics 3cr.
Prerequisite: QMBE 2786 or equivalent or consent of department. Decision under uncertainty; conditional, joint and marginal probability; Bayes Theorem; empirical and theoretical frequency distributions; statistical decision rules with binomial sampling and Bernouilli processes; statistical decision rules with normal sampling, and the Central Limit Theorem; suspension of judgment.

QMBE 6280 Mathematics in Financial Economics 3cr.
Prerequisite: ECON 3781 or MATH 2020 or 2107. Mathematics and applications of the following topics: Multivariate calculus, integral calculus, matrix algebra, differential equations, and non-linear programming.

QMBE 6281 Econometrics I 3cr.
Prerequisites: QMBE 2786 and 6280. A review of basic statistical inference and treatment of the general linear regression model and its extensions. Topics include probability and distribution theory, estimation and hypothesis testing, linear regression, heteroskedasticy and serial correlation, varying parameter models, systems of linear regressions, nonlinear estimation and stochastic regressors.

QMBE 6282 Econometrics II 3cr.
Prerequisite: QMBE 6281. Topics in econometric analysis, including simultaneous equation models, time series analysis and distributed lag models, multiple time series, qualitative and limited dependent variable models, markets in disequilibrium, switching regressions, multicollinearity and robust estimation.

QMBE 6283 Seminar in Mathematics and Statistics for Financial Economics 3cr.
Prerequisite: QMBE 6282. Applications of econometric methods to empirical problems in financial economics. Topics, selected by the instructor, will be drawn from recent literature and will illustrate the use of new and previously developed econometric methods.

QMBE 6295 Special Topics in Quantitative Methods 1-4cr.
An intensive study of selected special topics in Quantitative Methods. Topics will vary based on contemporary needs as dictated by the discipline as well as the interests of the students and the instructor. Section number will correspond with credit to be earned.

QMBE 6380 Advanced Mathematics in Financial Economics 3cr.
Prerequisite: QMBE 6280. Mathematical tools and techniques for theory in Financial Economics; logical reasoning and construction of proofs; geometric intuition of mathematical concepts. Topics: linear spaces and linear algebra, topological concepts of metric spaces, functions and correspondences, convex analysis, optimization.

QMBE 6780 Operations Research 3cr.
Offered each semester. This course is an introduction to solving quantitative problems in business and government organizations. It includes linear programming and the simplex algorithm; duality;the assignment and transportation problems; integer programming; goal programming; non-linear programming using LaGrange multipliers and the Kuhn-Tucker method; Markov chains; simulation; Von Neumann-Morgenstern analyses of utility, games, and decisions.

QMBE 6781 Business Forecasting and Econometrics 3cr.
Prerequisites: QMBE 2786 and Economics 3781 or Mathematics 2010 or 2107. Single equation regression models with emphasis on applications in business, finance, and economics. Topics include: multiple regression with least squares and alternative estimators, two stage least squares, single equation forecasting, and forecasting with time series models.

Roman Languages

ROML 4005 Greek & Roman Myth: The Ancient Sources 3cr.
Prerequisite: Latin 1012 or Greek 1012 or consent of department. A survey of Greek and Roman mythology originating from the ancient texts of classical authors. Concentration is on the multiple functions of myths and their interpretations in both the ancient and modern worlds. Further attention is directed to visual models

depicting classical themes and the introduction of Greek and Latin words and nomenclature.

ROML 6003 Applied Romance Linguistics 3cr.
Evaluation of language teaching methods based on recent learning theory. Readings and discussions of language methodology and textbook critiques. Required of all graduate students.

ROML 6005 Romance Linguistics 3cr.
Prerequisite: FREN 4015 or SPAN 4015 or equivalent. Comparative study of the history, phonology, morphology, and syntax of the two principal Romance languages. Required of graduate students with language/civilization concentration.

ROML 6105 Methods of Research of Romance Literatures 3cr.
A study of techniques of literary analysis and literary scholarship appropriate to each of the major genres of French and Spanish.

ROML 6205 Comparative Romance Cultures 3cr.
Prerequisite: FREN 4265 or SPAN 4265 or equivalent. Focus on the links of contemporary French and Spanish cultures to American culture through in-depth study of a common particular theme, problem, or perspective in the humanities, arts, or social sciences.

ROML 6207 Early Modern Romance Cultures 3cr.
Prerequisite: FREN 4201 or SPAN 4201 or equivalent. Focus on major themes in common to three romance cultures (French, Italian, Spanish) in their early periods of development, i.e. pre-1600. Topics may include courtliness and courtly love; leader and community; realism, magic, and afterlife; creativity and crisis; images of women in literature and art. May be repeated once for credit.

Science

SCI 1012 Physical Science for Elementary Teachers I 4cr.
Prerequisites: Math 1021 and Math 1022. Introduction to the basic physical sciences integrating topics in Physics, Chemistry, and Earth Science. Material will cover a variety of topics ranging from properties of natural materials and natural processes related to matter and mechanics. Course will integrate lab and lecture in a hands-on, constructivist classroom experience designed to provide future elementary school teachers with a firm scientific understanding of the topics presented and the skills needed to bring that knowledge into the elementary/middle school classroom. This course may be used for degree credit only by elementary education majors.

SCI 1013 Science for Elementary School Teachers II 4cr.
Prerequisites: Math 1021 and Math 1022 SCI 1012 or permission from the instructor. Introduction to the basic physical sciences integrating topics in Physics, Chemistry, and Earth Science. Material will cover a variety of topics such as properties of natural materials and natural processes related to electricity and magnetism, electric circuits, and motors. Course will integrate lab and lecture in a hands-on, constructivist classroom experience designed to provide future elementary school teachers with a firm scientific understanding of the topics presented and the skills needed to bring that knowledge into the elementary/middle school classrooms. This course may be used for degree credit only by elementary education majors.

SCI 1014 Science for Elementary School Teachers III 4cr.
Prerequisites: Math 1021 and Math 1022, SCI 1012, or permission from the instructor. Introduction to the basic physical sciences integrating topics in Physics, Chemistry, and Earth Science. Material will cover a variety of topics ranging from properties of natural materials and natural processes related to wave motions, heat and light. Course will integrate lab and lecture in a hands-on, constructivist classroom experience designed to provide future elementary school teachers with a firm scientific understanding of the topics presented and the skills needed to bring that knowledge into the elementary/middle school classrooms. This course may be used for degree credit only by elementary majors.

Social Sciences (Paralegal Studies)

General prerequisites: courses listed below with the designation "PL" are courses in Paralegal Studies and are open only to students eligible to enroll in English 1157 or with credit in English composition at the college level. May not be used to fulfill General Degree Requirements for social sciences.

SOSC 1901 PL: Introduction to Legal Concepts 3cr.
Legal principles of substantive and procedural law, organization, and functions of the court system. The paralegal's responsibilities and parameters in the practice of law.

SOSC 2003 PL: Legal Interviewing and Investigation 3cr.
Instruction in conducting factual investigations in civil and criminal cases through client and witness interviews, public records, and other research options. Psychological and other interviewing techniques. Investigation into negligence and criminal conduct.

SOSC 2005 PL: Legal Research 3cr.
Prerequisite: SOSC 1901. The basic methods and sources of legal research. Legislative, judicial, and administrative agencies' reporting systems and the distinctions between these systems. Primary and secondary research sources and the distinction between primary mandatory and primary persuasive authority are covered. Proper citation form, case briefing, session laws, codal compilations, digests, and other sources. Assignments using computer legal software such as Lexis/Nexis and Westlaw as well as basic Internet research.

SOSC 2010 PL: Family Law 3cr.
Louisiana law on marriage, marital regimes, marital property, community property, parent/child relationships, illegitimacy, paternity, adoption, dissolution of marriage by annulment, separation and divorce, and family law application by the Louisiana court system.

SOSC 2011 PL: Litigation 3cr.
Prerequisite: SOSC 1901. Preparation for the paralegal student to assist in the litigation sequence. The fundamentals of state and federal civil litigation from the initial stage of data collection through the trial, terminology and practical procedures, and emphasizes the federal, state, and local procedural rules utilized in litigation. Development of pleading and discovery instruments. Experience in computer-assisted legal research tools is provided.

SOSC 2013 PL: Legal Ethics 3cr.
A thorough consideration of the American Bar Association's "Code of Professional Responsibility" and "Code of Judicial Conduct," the National Association of Legal Assistants' "Code of Professional Responsibility" and the National Federation of Paralegal Associations' "Code of Professional Responsibility," as well as study of Louisiana's statutes on the unauthorized practice of law. A paralegal's conduct and responsibilities with attorneys, clients and other persons, emphasizing the paralegal's limitations in addition to overall legal ethical considerations. The consequences of the unauthorized practice of law.

SOSC 2020 PL: Real Estate Procedures 3cr.
Residential and commercial real estate transactions. Case law and statutory law covering ownership of movable and immovable property, agency, purchase agreements, redhibition and title warranty, servitudes, successions, liens, mortgages, etc. are all covered from the aspect of paralegal duties and responsibilities.

SOSC 2022 PL: Abstracting Techniques 3cr.
Prerequisite: SOSC 2005. A review of Louisiana substantive law relating to residential real estate and mineral law, its applications in the preparation of abstracts, compilation of information necessary for closing a sale of real estate, and preparation of preliminary abstracts of title. Students are required to conduct a title search and prepare the necessary documents for closing a sale of real estate.

SOSC 2030 PL: Taxation Procedures 3cr.
An introduction to federal and state taxation, including income, estate, gift sales, and use taxes. Emphasis is placed on recent legislative developments and the preparation of returns and schedules, including the audit process, contesting procedures, and administrative procedures of the IRS.

SOSC 2032 PL: Commercial and Banking Laws for Paralegals 3cr.
An overview of contracts, commercial paper, security rights, and laws and regulations governing financial institutions. Emphasis is on federal and Louisiana statutes and regulations governing lenders and loan terms. The course requires drafting a variety of agreements, letters, contracts, and other financing documents.

SOSC 2034 PL: Business Associations 3cr.
The characteristics of sole proprietorship, general and limited partnerships, and corporations is combined with a study of specific tasks such as inter-viewing business clients, drafting agreements, articles of incorporation, etc. Emphasis in on the role of the paralegal.

SOSC 2044 PL: Medical Malpractice 3cr.
An introductory course in the substantive issues and practical procedures of the Medical Malpractice Act, covering those areas where a paralegal handles analysis of hospital/medical records, subpoenae and use of medical records in the discovery process, preparation of discovery documents, medical panel submission requirements, and other litigation.

SOSC 2050 PL: Constitutional/Criminal Procedure 3cr.
The rules of criminal procedure as developed by the United States Constitution and the State of Louisiana's Constitution, including arrest, interrogation, search and seizure, constitutional rules in the courtroom, grand juries, right to counsel, and order of criminal trials.

SOSC 2052 PL: Evidence 3cr.
Prerequisite: SOSC 2005.The general rules of evidence as promulgated for the State of Louisiana in January 1989. Rules regarding hearsay, character evidence, evidence of other crimes, expert testimony, and types of evidence admissible and non-admissible in federal and state court systems, with special emphasis on paralegal trial preparation.

SOSC 2091 PL: Special Topics in Paralegal Studies 3cr.
Topic will vary from semester to semester. The course will concentrate on a particular area of legal practice. May be repeated once for credit.

SOSC 2907 PL: Case Analysis and Writing 3cr.
Prerequisite: SOSC 2005. The logical and expressive skills necessary for effective legal writing. Emphasized are grammar fundamentals, stylistic strategies, logic and logical fallacies, in-depth case analysis, and preparation of legal memoranda. Exercises in use of computer legal software in case analysis, as well as extensive legal document drafting exercises.

SOSC 3001 PL: Legal Practices and Procedures 3cr.
Prerequisites: SOSC 1901 2005 2011 2013 and 2907. Instruction in legal practice in a wide spectrum of on-the-job paralegal duties and responsibilities. Experience in routine work tasks performed by practicing paralegals, such as document production and management, client file organization and maintenance, court records filing, court record search and review, scheduling procedures for trials, hearings, discovery, calendar/docket control, tickler systems, and the inter-office memo system. Introduction to the use of computer legal and word-processing software in accomplishing these tasks. Problem-solving through the use of actual attorney assignments. Preparation of trial bench books and mock trial required.

SOSC 3012 PL: Wills, Estates, and Trusts 3cr.
Prerequisite: SOSC 2005. A course for paralegals focusing on obtaining and organizing client information, testament forms, Louisiana forced heirship laws, testate and intestate successions, including an in-depth study of substance and procedure, administration of estates, and Louisiana inheritance taxes, with an introduction to Federal Estate Tax and an introduction to the Louisiana Trust Code. Research assignments using traditional and electronic resources.

SOSC 3036 PL: Bankruptcy Practice 3cr.
This course is designed to prepare paralegal students to assist attorneys representing debtors and creditors in bankruptcy. Emphasis on procedures and their practical applications, including but not limited to, interviewing clients, preparing and reviewing schedules, preparing and filing claims, and motions. The course reviews the U.S. Trustee System and the federal bankruptcy code including amendments and related provisions.

SOSC 3040 PL: Torts 3cr.
Prerequisites: SOSC 2907 and 2011. An introduction to substantive Louisiana tort law with emphasis on the elements of intentional torts, negligence, products liability, defenses, and damages. Practical and procedural applications to assist in either defense or plaintiff personal injury litigation.

SOSC 3042 PL: Introduction to Maritime Personal Injury Law 3cr.
Prerequisite: SOSC 2005. An introduction to substantive, procedural, and practical aspects of maritime personal injury practice for the paralegal. A study of the requisited of admiralty jurisdiction as well as an in-depth study of all substantive, procedural, and practical aspects of all remedies available in admiralty for personal injury jurisdiction, including, but not limited to, the requisite elements of recovery pursuant to the Jones Act, warranty at seaworthiness, maintenance and cure, the general maritime law, wrongful death, the Longshore Harbor workers Compensation Acts, as well as all available avenues for contribution and indemnity and all defenses available to admiralty claims.

SOSC 3070 PL: Computer Litigation Support 3cr.
Prerequisites: SOSC 1901 2005 2011 2013 2907 3001. An advanced course which focuses on litigation support concepts with hands-on instruction and practice in Summation, an automated litigation support program.

SOSC 3077 PL: Environmental Law 3cr.
The fundamentals of environmental law in the United States with particular emphasis on Louisiana. Why and how environmental laws are made. The relationship of environmental law to Commerce, Bankruptcy, Administrative, Toxic Tort, and Criminal Law.

SOSC 3088 PL: Paralegal Internship Program 3cr.
Prerequisites: SOSC 1901, 2013, 2005, 2907, 2011, and a 3.0 grade point average. An advanced clinical practicum. Student intern works a minimum of ten hours per week in a legal setting (law office, law-related government agency, non-profit legal agency, court system, etc.) under the on-site direct supervision of attorney or senior paralegal. This course may be repeated once for credit.

SOSC 3091 PL: Special Topics in Paralegal Studies 3cr.
Topic will vary from semester to semester. The course will concentrate on a particular field of legal practice. May be repeated once for credit.

Sociology

SOC 1051 Introductory Sociology 3cr.
Offered each semester. A first course in the study of human beings in society using basic concepts and methods of sociology. Topics include the influences of social groups on individuals' attitudes and behaviors, stability and change in the family, and social inequality.

SOC 2098 Special Topics in Sociology 3cr.
A theoretical and methodological examination of selected sociological topics with emphasis on current trends and tendencies in modern societies. This course may be repeated once for credit.

SOC 2152 Social Institutions 3cr.
An analysis of stable and enduring social institutions, including the family, education, the economy, religion, government, the arts, science, law, and recreation.

SOC 2175 Industrial Sociology 3cr.
Human relationships in industry; the relations of industry to the community and society.

SOC 2273 Society and the Person 3cr.
A review of the relationships between society and the person. The social conditioning of the individual through infancy, childhood, and adult life and the reciprocal influences of the person in society are the essence of the course.

SOC 2707 Social Statistics I 4cr.
Offered each semester. Prerequisite: three hours of mathematics above DEVM 0107. A study of descriptive and inferential statistics employed in social science research including measures of central tendency and variation, rates, graphing techniques, measures of association, tests of significance, and regression. Laboratory meetings also cover introduction to computer usage, spread sheets, and PC-based statistics programs. Successful completion of SOC 2707 and 2708 meets the general degree requirement for computer literacy. Three hours of lecture and two hours of laboratory.

SOC 2708 Methods in Social Research 3cr.
Offered each semester. Prerequisite: SOC 1051. A comprehensive examination of the logic and applications of the scientific method in the social sciences. Topics include survey, evaluation, experiment, existing sources, and field research. In addition, the student is introduced to computer usage, including work processing and data analysis with a statistics package on a main frame computer. Successful completion of Sociology 2707 and 2708 meets the general degree requirement for computer literacy.

SOC 2871 The Environment as a Social Problem 3cr.
Prerequisite: Sociology 1051 or consent of instructor. Examines environmental hazards and depletion of natural resources as important social problems confronting contemporary society. Alternative understandings of the seriousness and probable causes of a number of environmental problems, such as air pollution, toxic contamination, loss of wetlands, and species extinction, are explored.

SOC 2881 The City 3cr.
A comparative study of cities and social groups and processes in the urban environment.

SOC 2962 Current Social Problems 3cr.
A study of contemporary social problems and their consequences for humankind with emphasis on American society. Topics include crime, drug abuse, family problems, inequality, mental illness, population problems, and suicide.

SOC 2994 Multiculturalism and Diversity in U.S. Society 3cr.
U.S. society has been settled by immigrants from all over the world. In addition, such constitutional protections as freedom of speech, freedom of the press, and freedom of association create legal protections for diversity.The present course uses sociological concepts and theories to analyze diversity and multiculturalism is U.S. society. It identifies circumstances which tend to give rise to tolerance or repression, assimilation or separation, respect or condemnation. It addresses both the problems diversity generates, as well as the potential it has to enrich our lives.

SOC 3091 Independent Work 1cr.
Offered each semester. Prerequisite: consent of department. Readings, conferences, and research reports under the direction of a member of the sociology faculty. In no case may a student register for SOC 3091-3097 for a total of more than nine hours, nor may a student apply more than six hours of sociology courses numbered 3091-3097 toward the hours required for the major in sociology.

SOC 3092 Independent Work 1cr.
Offered each semester. Prerequisite: consent of department. Readings, conferences, and research reports under the direction of a member of the sociology faculty. In no case may a student register for SOC 3091-3097 for a total of more than nine hours, nor may a student apply more than six hours of sociology courses numbered 3091-3097 toward the hours required for the major in sociology.

SOC 3093 Independent Work 1cr.
Offered each semester. Prerequisite: consent of department. Readings, conferences, and research reports under the direction of a member of the sociology faculty. In no case may a student register for SOC 3091-3097 for a total of more than nine hours, nor may a student apply more than six hours of sociology courses numbered 3091-3097 toward the hours required for the major in sociology.

SOC 3094 Independent Field Research in Sociology 3cr.
Offered each semester. Prerequisite: consent of department. Practical applications of data collection methods in natural settings; observation, participant-observation and field experimentation; emphasis on implementing research methods in the community. In no case may a student register for Sociology 3091-3097 for a total of more than nine hours, nor may a student apply more than six hours of sociology courses numbered 3091-3097 toward the hours required for the major in sociology.

SOC 3095 Independent Field Research in Sociology 3cr.
Offered each semester. Prerequisite: consent of department. Practical applications of data collection methods in natural settings; observation, participant-observation and field experimentation; emphasis on implementing research methods in the community. In no case may a student register for Sociology 3091-3097 for a total of more than nine hours, nor may a student apply more than six hours of sociology courses numbered 3091-3097 toward the hours required for the major in sociology.

SOC 3096 Internship in Sociology 3cr.
Offered each semester. Prerequisites: Sociology 2707, 2708 and consent of department. The sociology intern is placed in a city, parish, or state government agency or office in the metropolitan area to learn about the applicability of the sociological perspective and methodology to applied endeavors in government. Interns usually work eight hours a week at times mutually agreeable to the indi-

vidual and the agency. In addition, students must meet regularly with the faculty adviser and the student's work must be evaluated by both the supervisor and adviser. In no case may a student register for Sociology 3091-3097 for a total of more than nine hours, nor may a student apply more than six hours of sociology courses numbered 3091-3097 toward the hours required for the major in sociology.

SOC 3097 Internship in Sociology 3cr.
Offered each semester. Prerequisites: Sociology 2707, 2708 and consent of department. The sociology intern is placed in a city, parish, or state government agency or office in the metropolitan area to learn about the applicability of the sociological perspective and methodology to applied endeavors in government. Interns usually work eight hours a week at times mutually agreeable to the individual and the agency. In addition, students must meet regularly with the faculty adviser and the student's work must be evaluated by both the supervisor and adviser. In no case may a student register for Sociology 3091-3097 for a total of more than nine hours, nor may a student apply more than six hours of sociology courses numbered 3091-3097 toward the hours required for the major in sociology.

SOC 3099 Senior Honors Thesis 3cr.
Prerequisites: consent of department and director of the Honors Program. Directed research leading to the writing of a Senior Honors Thesis. This course must be repeated once in order to graduate With Honors in Sociology. The sociology honors program requires six hours of honors thesis in addition to all other requirements.

SOC 3595 Academic Year Abroad: Special Topics in Sociology
3cr.
This course is only offered through UNO's Academic Year Abroad (AYA) in Innsbruck, Austria and can be repeated once for credit.

SOC 4070 Special Topics in Women, Literature, and Society 3cr.
(WS 4070, ENGL 4070 and SOC 4070 are cross-listed) Prerequisite: ENGL 2378 or SOC 1051 or WS 2010 or consent of instructors. A team-taught, interdisciplinary study of women in literature and society. Variable topics include women and crime, women and work, women and the family, women and religion.

SOC 4086 Sociological Theory 3cr.
Prerequisite: nine hours in sociology. A systematic inquiry into the origins of modern sociological thought, with emphasis on major concepts and theoretical perspectives. Offered each semester.

SOC 4094 Social Change 3cr.
Prerequisite: six hours in sociology. A comparative study of theories and processes of social change, with emphasis on modernization, economic development, and revolution.

SOC 4098 Selected Topics in Sociology 3cr.
Prerequisite: SOC 1051 or consent of department. Selected problems of sociological research and theory with emphasis on trends and tendencies in modern society. This course may be repeated once for credit.

SOC 4101 Social Organization 3cr.
Prerequisite: six hours in sociology. The structure and functioning of social groups and institutions, emphasizing American society.

SOC 4104 The Family 3cr.
Prerequisite: SOC 1051 or consent of department. An analysis of the family in social context, with emphasis on the ways in which communities and societies promote stability and change in families. Patterns of interaction among family members are also explored, together with the impact of family life on the individual's social development.

SOC 4105 Sociology of Religion 3cr.
Examination of the social dimensions of religious beliefs and institutions. Emphasis on patterns of religious behavior in contemporary American society. Analysis of relationships between religion and processes of social change.

SOC 4107 Sociology of Gender 3cr.
Prerequisites: six hours in sociology. This course examines issues of gender for men and women in society through a range of theoretically defined topics. Topics covered include the intersections of gender with race/ethnicity, class, and sexual orientation; gender role socialization, childbearing, reproductive rights, and parenting. Also included are units on gender and health, intimacy, and friendship. These topics are examined in terms of the social, economic, and political bases for gender differences.

SOC 4111 Sociology of Medicine 3cr.
Prerequisite: SOC 1051 or consent of department. A sociological analysis of the interpersonal dynamics involved in the treatment of illness and the organizational structure and functions of health services.

SOC 4112 Sociology of Mental Health 3cr.
Prerequisite: Sociology 1051 or consent of department. A sociological analysis of mental illness including the following areas: the history of mental illness in society, etiological explanations of mental illness, epidemiology of mental illness, mental health professions, law and psychiatry, community mental health, and mental health and social policy.

SOC 4113 Sociology of Aging and Death 3cr.
Prerequisite: SOC 1051 or consent of department. An examination of the personal, interpersonal, and cultural dimensions of aging, together with an appraisal of the meaning and consequences of death in America. While the emphasis is contemporary, some historical and cross-cultural materials are also used. Attention is drawn to personal and societal needs associated with aging and death.

SOC 4124 Social Stratification 3cr.
Prerequisite: six hours in sociology. A study of classes, status groups, castes, and social mobility.

SOC 4130 Sociology of Women 3cr.
Prerequisite: SOC 1051 or consent of department. This course examines the position of women in society. Such topics as sex role socialization, sexuality, reproductive rights, housework, childrearing, and violence against women are examined in terms of the social, economic, and political bases for gender differences.

SOC 4150 Sociology of Popular Culture 3cr.
Prerequisite: SOC 1051 or consent of the department. The course provides a survey of the sociology of culture, with a focus on popular culture. The emphasis is on theoretical approaches to the relationship of culture and society, the process of cultural production, and the reception of culture. The substantive focus includes the variety of meanings of film, rock music, and sport.

SOC 4152 Social Welfare Institutions 3cr.
An analysis of social welfare institutions, both private and public, in fields of philanthropy, employment, insurance, health care, housing, urban renewal, poverty, crime prevention, and human development

SOC 4161 Political Sociology 3cr.
Prerequisite: six hours in sociology. An examination of social institutions and political ideologies under conditions of early and late

modernity. Particular attention is given to the new types of social and political challenges created by globalization and such human-created risks as global climate change and bioterrorism. Additional topics include the relation between deliberative democracy and community, the continuing influence of tradition and fundamentalism, and international efforts to promote gender equity and human rights.

SOC 4178 Occupations, Professions and the Urban Labor Force 3cr.
Prerequisite: SOC 1051, or consent of department. Study of the organization of work in modern, urban societies, emphasizing the United States. Topics include professionalization, occupational choice and placement, methods of labor force analysis, and theories of the meaning of work.

SOC 4180 Women and Work 3cr.
Prerequisite: SOC 1051 or consent of the department. Topics include an overview of the status of women, market work, including labor force participation, wages and wage discrimination, occupational segregation, equal pay for work of comparable worth, and domestic work.

SOC 4191 Seminar in Non-Profit Organizations 3cr.
Prerequisite: Consent of the Department. The course is designed to prepare students for internships and ultimate employment in non-profit organizations. The course will introduce the non-profit sector and locate it between government and the for-profit sector. The emphasis is on problem solving in the non-profit sector, including areas such as finance, personnel, marketing, and management of a simulated organization.

SOC 4192 Practicum in Non-Profit Organizations 1cr.
Prerequisite: Consent of Department. This practicum explores strategic planning, marketing, and communication within non-profit organizations and the particular challenges involved in the non-profit sector. Course may be repeated twice for a total of three credits. One hour of lecture and laboratory.

SOC 4216 Advanced Social Psychology 3cr.
Prerequisite: six hours in sociology. Current theoretical and research problems in social psychology from a sociological perspective. Review of traditional areas such as socialization, perception, role attitudes, and group dynamics. Emphasis on new developments in socio- and psycho-linguistics, information theory, participation, observation, and experimental methods.

SOC 4218 Power, Surveillance, and Control 3cr.
Prerequisite: SOC 1051 or consent of department. An examination of formal and informal mechanisms of social control, types of social power, and surveillance techniques. Students are introduced to social theories which offer contrary positions on the questions of whether control is necessary to protect individuals in a society from the harmful actions of others, or whether control is means by which the powerful protect their privilege. Other topics covered include the distribution of power resources and the implication of this for different groups' ability to influence social policy, the nature of propaganda, subtle forms of control achieved through the manipulation of physical space, and the increasingly sophisticated nature of surveillance technology.

SOC 4219 Social Deviance 3cr.
Prerequisite: six hours in sociology. A survey of theory and research on the violation of social norms and laws. Primary emphasis is on social phenomena influencing conformity and deviance, together with institutional responses to individual and group deviance.

SOC 4788 Social Statistics II 3cr.
Fall semester. Prerequisite: SOC 2707 or equivalent. An exploration of intermediate level multivariate statistical techniques for analyzing sociological and other social science data. Topics include analysis of variance and covariance, correlation, regression analysis, causal models and specialized topics in multivariate statistical methods.

SOC 4871 Sociology of the Environment 3cr.
Prerequisite: SOC 1051, or consent of instructor. In-depth examination of the social dimensions of one to several environmental issues of contemporary relevance. Examples of the kinds of topics which will be covered include: biodiversity and species preservation; comparitive cultural beliefs and values about the environment; conservation of wilderness areas and other environmental amenities; renewable energy and resource supplies; risk management; substainable development; and technological controversies. The examined topics will be used as a venue through which to introduce students to an array of sociological concepts and theories about the human society-environmental interface.

SOC 4881 The Urban Community 3cr.
An analysis of the major subcommunities and subcultures to be found in any large urban complex. Special attention will be given to neighborhoods, ethnic and racial groups, suburbs, and religious and occupational subcultures.

SOC 4882 Urban Issues: Planning and Social Policy 3cr.
This course will deal with theory, policy, and methods in urban planning. It will also focus on special issues of contemporary problems, such as housing, urban renewal, and regional government.

SOC 4903 Population Issues and Dynamics 3cr.
Prerequisite: SOC 1051 or consent of department. An examination of social demography, with emphasis on the development of the theories and methods used to examine transitions in fertility, mortality, and migration, and their impact on population growth, distribution, and composition. Other foci include the debates regarding the relationship between population growth and economic development, resource depletion, and environmental degradation, and the policy implications of the various positions taken.

SOC 4911 Drugs and Society 3cr.
This course approaches the subject of drugs from a multidisciplinary perspective, with attention given to the biological, psychological, sociological, and educational implications of drug use and abuse in American society. Special concern will be given to the analysis of the values as they relate to the development and elaboration of subcultures and countercultures whose lifestyles reflect the use of and/or dependency upon drugs.

SOC 4915 Black Women and Violence 3cr.
This course surveys significant issues related to violence against women of African descent. Using a sociological approach that is largely structural and social-psychological, students examine the causes and consequences of sexual and domestic violence in the lives of Black women, and Black women's response to such violence. Most important, violence against women and the social structures that contribute to it are not studied in isolation from other social problems, but are discussed in relation to race and class-based forms of oppression and inequity. The course issues and subjects are approached from a perspective that connects theory to practice and action.

SOC 4921 Criminology 3cr.
Prerequisite: SOC 1051 or consent of department. An analysis of causes, consequences, and control of crime in American society. Special attention is given to the theoretical explanations of crime and the special methodological problems in studying criminal behavior.

SOC 4954 Juvenile Delinquency 3cr.
Prerequisite: SOC 1051 or consent of department. An examination of the theoretical approaches to juvenile delinquency, alternative treatment programs, and the juvenile justice system, with primary focus on modern American society.

SOC 6096 Sociology in Applied Settings 3cr.
Prerequisite: SOC 6783, 6784 and consent of department. These two courses constitute a graduate internship where the graduate intern works in a public or private agency or organization a minimum of eight hours a week. The purpose is to apply sociological theory and methods to evaluate a particular problem or to assess the impact of proposed organizational changes or policies. The focus of the course is to produce an applied research paper, prepared under the direction of a graduate faculty advisor and a two-person committee. See program requirements for more details. No more than six hours in 6096-6097 may be counted for the degree, and a student may not count hours in both the 6096-6097 sequence and Sociology 7000 for the Master of Arts degree in Sociology.

SOC 6097 Sociology in Applied Settings 3cr.
Prerequisite: SOC 6783, 6784 and consent of department. These two courses constitute a graduate internship where the graduate intern works in a public or private agency or organization a minimum of eight hours a week. The purpose is to apply sociological theory and methods to evaluate a particular problem or to assess the impact of proposed organizational changes or policies. The focus of the course is to produce an applied research paper, prepared under the direction of a graduate faculty advisor and a two-person committee. See program requirements for more details. No more than six hours in 6096-6097 may be counted for the degree, and a student may not count hours in both the 6096-6097 sequence and Sociology 7000 for the Master of Arts degree in Sociology.

SOC 6105 Seminar: Complex Organization and Bureaucracy 3cr.
Analysis of the characteristics of the major types of large-scale, bureaucratic organizations found in contemporary industrial society, emphasizing the special common features of human organizations which cut across the many types of organization life.

SOC 6107 Sociological Perspectives on Gender 3cr.
Prerequisites: SOC 4086 or equivalent. This course is an advanced graduate seminar that examines a variety of theoretical perspectives in the social construction of gender and the applications of these perspectives to empirical research. Methodological issues and controversies involved in the study of gender are also explored. Throughout the course, emphasis will be placed on the impact of race, ethnicity, age, and sexual preference on gender relations.

SOC 6396 Independent Readings in Sociology 1-3cr.
Offered each semester. Prerequisite: consent of department. Amount of credit to be determined at the time of registration. This course will consist of readings, conferences, reports, and research papers under the direction of a member of the graduate faculty. Total credit which may be accumulated in 6396, 6397, and 6398 is limited to six hours. Section number will correspond with credit to be earned.

SOC 6397 Independent Readings in Sociology 1-3cr.
Offered each semester. Prerequisite: consent of department. Amount of credit to be determined at the time of registration. This course will consist of readings, conferences, reports, and research papers under the direction of a member of the graduate faculty. Total credit which may be accumulated in 6396, 6397, and 6398 is limited to six hours. Section number will correspond with credit to be earned.

SOC 6398 Independent Readings in Sociology 1-3cr.
Offered each semester. Prerequisite: consent of department. Amount of credit to be determined at the time of registration. This course will consist of readings, conferences, reports, and research papers under the direction of a member of the graduate faculty. Total credit which may be accumulated in 6396, 6397, and 6398 is limited to six hours. Section number will correspond with credit to be earned.

SOC 6573 Social Psychology 3cr.
(SOC 6573 and PSYC 6400 are cross-listed) Analysis of the relationship between human behavior and social context, emphasizing the impact of social forces on social action and cognition. Topics include theoretical paradigms in social psychology, language use and interaction, small groups, self and identities, collective behavior, attitudes and behavior. Critical analysis of existing theory and research methodology will be considered for each topic.

SOC 6783 Advanced Sociological Theory 3cr.
Prerequisite: SOC 4086. A critical and analytical study of the major theoretical perspectives in contemporary sociology emphasizing the specific concepts and issues as well as ways these the

SOC 6784 Methods of Sociological Investigation 3cr.
A study of the principle methods of social science research with the purpose of developing students' ability to conduct research and be critical users of professional research.

SOC 6785 Seminar in Research Applications 3cr.
Prerequisites: SOC 4788 6783 and 6784 or consent of department. The course provides graduate students advanced instruction in research design and analysis. It examines the types of validity claimed by sociological knowledge, covers research design and analytical methods, and culminates in a specific thesis proposal from each student.

SOC 6788 Qualitative Methods in Sociology 3cr.
This course examines qualitative research methods in sociology, focusing on participant and nonparticipant observation, in-depth interviewing, and the use of documents as data. Attention is paid to the sociological analysis of qualitative data and how qualitative research is written for publication.

SOC 6813 Seminar: Urban Ecology and Demography 3cr.
An investigation of population trends in urban areas, and an attempt to account for these trends within the framework provided by contemporary human ecological explanations.

SOC 6814 Seminar in Sociology of Development 3cr.
This course offers advanced instruction in the sociology of development using a comparative cross-national perspective. It examines various theoretical and methodological approaches to the study of societal development, as well as the implications of diverse development strategies for developed and underdeveloped countries. The social, institutional, and historical factors and processes affecting national development will be addressed.

SOC 6871 Environmental Analysis 3cr.
Prerequisite: URBN 6850 or consent of coordinators. An investigation of environmental problems from a sociological perspective, with an emphasis on environmental analysis, management, and policy.

SOC 7000 Thesis Research 1-9cr.
Offered each semester. To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

SOC 7040 Examination or Thesis Only No credit 0cr.
Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the

Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

Spanish

Placement of students with high school preparation in Spanish: students with sufficient preparation in French may enter the second, third, or fourth semester course in that language, thus completing the foreign language requirement in fewer semesters. Students interested in taking placement tests should contact the Foreign Language departments. Language courses in the 1001, 1002, 2001, 2002 sequence must be taken in that order.

SPAN 1001 Basic Spanish I 3cr.
Offered each semester. A sequence of courses developing all four language skills: speaking, understanding, writing, and reading. The course includes the presentation and discussion of cultural material such as magazines, films, records, and other audio-visual items when feasible.

SPAN 1002 Basic Spanish II 3cr.
Prerequisite: SPAN 1001. A continuation of SPAN 1001.

SPAN 2001 Intermediate Spanish I 3cr.
Prerequisite: SPAN 1002 or consent of department. Continuation of the development of all four language skills: speaking, understanding, writing, and reading. The course includes the presentation and discussion of cultural material such as magazines, films, records, and other audio-visual items when feasible.

SPAN 2002 Intermediate Spanish II 3cr.
Prerequisite: SPAN 2001 or consent of department. Readings and exercises in Spanish. Special emphasis on comprehension as well as oral and written expression in the language.

SPAN 2003 Basic Spanish for Hispanic Students 3cr.
Prerequisite: consent of department. Reading, writing, and vocabulary-building exercises especially prepared for the student whose home language is Spanish.

SPAN 2004 Intermediate Spanish for Hispanic Students 3cr.
Prerequisite: Spanish 2003 or consent of department. Reading, writing, and vocabulary-building exercises especially prepared for the student whose home language is Spanish.

SPAN 3002 Phonetics 3cr.
Phonetic principles applied specifically to an analysis of the phonetic system of Spanish. Intensive practice in the language laboratory, ear training, transcriptions, and corrective exercises.

SPAN 3005 Romance Linguistics 3cr.
(SPAN 3005 and FREN 3005 are cross-listed) Comparative study of the history, phonology, morphology, and syntax of the principal Romance languages.

SPAN 3031 Spanish Conversation 3cr.
Prerequisite: SPAN 2002 or consent of department. Conversation, oral discussions, interpretations and reports, practicing the spoken language. Not open to native speakers of Spanish. Native speakers majoring in Spanish must substitute three hours at the 3000 level or above.

SPAN 3041 Advanced Spanish Grammar 3cr.
Fall semester. Intensive study of Spanish grammar and syntax. This course is designed primarily for prospective teachers and students concentrating in the language.

SPAN 3042 Advanced Spanish Composition and Syntax 3cr.
Spring semester. Prerequisite: SPAN 3041. Drill in original descriptive and narrative composition in the language with attention to style, syntax, idioms, and verb forms.

SPAN 3055 Introduction to the Analysis and Interpretation of Spanish Literature 3cr.
A study of techniques of literary analysis particular to each of the major genres with readings and discussion of representative works.

SPAN 3100 Survey of Spanish Literature I 3cr.
Fall semester. A study of Spanish literature from its beginnings to the eighteenth century. Classes conducted in English. Additional work done in connection with this course may be used by Spanish majors to fulfill the Liberal Arts oral proficiency requirement.

SPAN 3101 Survey of Spanish Literature II 3cr.
Spring semester. Continuation of SPAN 3100. Study of the main authors and literary movements from the eighteenth century to the present. Classes conducted in English. Additional work done in connection with this course may be used by Spanish majors to fulfill the Liberal Arts oral proficiency requirement.

SPAN 3191 Independent Work 1cr.
Prerequisite: consent of department. Readings, conferences, and papers under the direction of a member of the faculty. The course allows the student to correlate and supplement the work covered in the departmental courses. Each course may be repeated but combined credit may not exceed six semester hours.

SPAN 3192 Independent Work 1cr.
Prerequisite: consent of department. Readings, conferences, and papers under the direction of a member of the faculty. The course allows the student to correlate and supplement the work covered in the departmental courses. Each course may be repeated but combined credit may not exceed six semester hours.

SPAN 3193 Independent Work 1cr.
Prerequisite: consent of department. Readings, conferences, and papers under the direction of a member of the faculty. The course allows the student to correlate and supplement the work covered in the departmental courses. Each course may be repeated but combined credit may not exceed six semester hours.

SPAN 3194 Internship in Spanish 1cr.
Prerequisite: consent of Spanish undergraduate coordinator. The internship project will receive written evaluation from the outside supervisor of the project and from the undergraduate coordinator. A student may earn no more than a total of three credits in the undergraduate curriculum for an internship project or projects. Students receiving three credits will work a minimum of eight hours per week; two credits, six hours per week; one credit, three hours per week.

SPAN 3195 Internship in Spanish 1cr.
Prerequisite: consent of Spanish undergraduate coordinator. The internship project will receive written evaluation from the outside supervisor of the project and from the undergraduate coordinator. A student may earn no more than a total of three credits in the undergraduate curriculum for an internship project or projects. Students receiving three credits will work a minimum of eight hours per week; two credits, six hours per week; one credit, three hours per week.

SPAN 3196 Internship in Spanish 1cr.
Prerequisite: consent of Spanish undergraduate coordinator. The internship project will receive written evaluation from the outside supervisor of the project and from the undergraduate coordinator. A student may earn no more than a total of three credits in the undergraduate curriculum for an internship project or projects. Students receiving three credits will work a minimum of eight

hours per week; two credits, six hours per week; one credit, three hours per week.

SPAN 3197 Demonstration of Oral Proficiency 1cr.
The course is to be taken concurrently with SPAN 3055, 3100, or 3101. The student will be required to present a detailed "explication de texte" to the professor teaching the course and conduct a discussion with the professor related to the chosen text and receive a pass/fail grade. Successful completion of this course satisfies the general degree requirement for oral competency.

SPAN 3199 Independent Work for Honors Students 3cr.
Prerequisite: consent of department and Director of the University Honors Program. Directed research culminating in a written thesis to meet the requirements for graduation with Honors in Spanish, and if appropriate, University Honors.

SPAN 3271 Spanish-American Civilization 3cr.
A study of Spanish-American civilization: history, social, organization, and culture. Open to all students with a reading knowledge of Spanish equivalent to completion of SPAN 2002 or 2012. Discussions in English.

SPAN 3402 Masterpieces of Spanish and Spanish-American Literature in Translation 3cr.
(Open to all students, including Spanish and Spanish Education majors, for degree credit as an elective.) Different Spanish or Spanish-American works in translation are chosen each time for reading, analysis, and discussion.

SPAN 3500 Tutorial for Graduating Majors 1cr.
This course prepares majors for the completion of their requirements for the B.A. in Spanish. A designated professor will serve as advisor. The course consists of a review of the subjects covered in other required courses, in literature, language/linguistics and civilization. The course concludes with the Written Exit Exam, a comprehensive two-hour exam in Spanish. Prerequisite: 100 hours of course work. Tutorial format. Pass/Fail.

SPAN 4007 Spanish Dialectology 3cr.
A study of the phonology, morphology, syntax, and vocabulary of the different regions of the Spanish-speaking world.

SPAN 4015 History of the Spanish Language 3cr.
A general survey of the development of the Spanish language from its beginnings to the present day with particular attention to the phonology, morphology, and syntax of old Spanish.

SPAN 4031 Advanced Spanish Conversation 3cr.
Prerequisite: SPAN 3031 or equivalent. Intensive practice in the spoken language: conversation, oral discussions, interpretations, and reports. Conducted in Spanish. Native speakers may enroll with the instructor's prior approval.

SPAN 4041 Problems of Grammatical Analysis 3cr.
Prerequisite: SPAN 3041 or equivalent. Problems of grammatical analysis and contrastive stylistics are discussed on a basis that combines traditional approaches and more recent theories. Application in translation exercises, from and into Spanish, and introduction to literary translation.

SPAN 4051 Business Spanish 3cr.
Prerequisite: language proficiency at the 2002 level. Study of fundamental sentence structure and specialized terminology and idioms related to business needs and correspondence. Practice in standard business correspondence. Oral exposés and conversations dealing with standard business situations and Spanish economies. Readings from current magazines in economics and international business.

SPAN 4110 Medieval Spanish Literature 3cr.
Readings in the principal genres from the beginnings to 1500.

SPAN 4122 Spanish Prose of the Golden Age 3cr.
Studies in the chivalric, pastoral, and picaresque prose of the sixteenth and seventeenth centuries, with emphasis on Cervantes.

SPAN 4124 Dramatic Literature of the Golden Age 3cr.
The development of the Spanish comedia with emphasis on Lope de Vega, Tirso de Molina, and Calderon de la Barca.

SPAN 4140 Spanish Literature from 1700 to 1850 3cr.
Representative writers of the period with particular stress on literary currents

SPAN 4155 Spanish Literature from 1850 to the Generation of 1898 3cr.
Representative writers of the period with particular stress on literary currents.

SPAN 4160 The Writers of the Generation of 1898 3cr.
Extensive critical readings in and reports on the major authors of the generation of 1898.

SPAN 4172 Spanish-American Prose 3cr.
A course in prose literature from the early chronicles through the contemporary novel.

SPAN 4175 Studies in Spanish-American Fiction 3cr.
The works of a specific novelist or group of novels on a similar theme studied as a reflection of social and cultural conditions in a country, countries, or geographical area. Discussions in English.

SPAN 4176 Spanish-American Poetry 3cr.
A study of Spanish-American poetry with emphasis on the Modernista and the contemporary period.

SPAN 4180 Contemporary Spanish Literature 3cr.
Study of significant writings of contemporary authors; post-war trends; and the influence of the Civil War on Spanish writers.

SPAN 4201 Spanish Civilization I 3cr.
A study of Spanish culture and civilization (history, fine arts, music, architecture, history of ideas, national character, etc.) from its origins through the reign of Ferdinand and Isabella. Readings and discussions in Spanish.

SPAN 4202 Spanish Civilization II 3cr.
A continuation of SPAN 4201 stressing the cultural history of Spain from the Habsburg dynasty to the present day. Readings and discussions in Spanish.

SPAN 4203 Spanish American Civilization I 3cr.
Study of Spanish American culture and civilization (history, fine arts, music, architecture, history of ideas, etc.) from pre-colonial to the modern period. Readings and discussions in Spanish.

SPAN 4204 Spanish American Civilization II 3cr.
Study of Spanish American culture and civilization (history, fine arts, music, architecture, history of ideas, etc.) from the modern period to the contemporary period. Readings and discussions in Spanish.

SPAN 4265 Contemporary Spanish Culture 3cr.
A study of Spanish intellectual and cultural life today: social, economic, and geographical factors; the country and its attitudes. Conducted in Spanish.

SPAN 4400 Children's Literature in Spanish 3cr.
A study of the cultural heritage of stories songs rhymes and games. Selection evaluation and use of books and materials for children.

SPAN 6003 Spanish "Comentario de texto" 3cr.
The theory and practice of "comentario de texte"- textual exegesis-

in Spanish. In addition to purely literary texts the method of "comentario de texte" will be applied to other kinds of writing.

SPAN 6007 Spanish Linguistics 3cr.
Advanced study of Spanish phonology, morphosyntax, and semantics within the framework of recent linguistic models, including consideration of solution of major descriptive problems proposed from at least 1900 to the present.

SPAN 6097 Studies in Spanish Linguistics 3cr.
(May be repeated once for credit.)

SPAN 6190 Studies in Medieval Spanish Literature 3cr.
(May be repeated once for credit.)

SPAN 6191 Studies in Golden Age Literature 3cr.
(May be repeated once for credit.)

SPAN 6192 Studies in Spanish Literature 1700-1850 3cr.
(May be repeated once for credit.)

SPAN 6193 Studies in Spanish Literature 1850-1898 3cr.
(May be repeated once for credit.)

SPAN 6194 Studies in Spanish Literature of the Generation of 1898 3cr.
(May be repeated once for credit.)

SPAN 6195 Studies in Contemporary Spanish Literature 3cr.
(May be repeated once for credit.)

SPAN 6196 Studies in Spanish-American Literature to 1810 3cr.
(May be repeated once for credit.)

SPAN 6197 Studies in Spanish-American Literature After 1810 3cr.
(May be repeated once for credit.)

SPAN 6198 Studies in Spanish Literature 3cr.
(May be repeated once for credit.)

SPAN 6205 Spanish Thought 3cr.
History of ideas in Spain. Study of texts constituting significant contributions to political, social, scientific, religious, philosophical, and aesthetic discourse.

SPAN 6207 Spanish-American Thought 3cr.
This course examines the evolution of Spanish-American thought with reference to the development of political, economic, social, and cultural institutions. Throughout the course, past developments will be related to contemporary issues.

SPAN 6265 Contemporary Hispanic Society and Institutions 3cr.
A comprehensive study of Spanish speaking countries today: political, social, economic, and religious institutions, intellectual life, contemporary issues. Topics include: A) Spain; B) Andean countries, (Colombia, Ecuador, Peru, and Bolivia); C) Caribbean (Cuba, Dominican Republic, Puerto Rico, and Caribbean coasts of Venezuela, Colombia, and the nations of Central America); D) River Plate Region (Argentina, Chile, Paraguay, and Uruguay).

SPAN 6295 Studies in Hispanic Culture and Civilization 3cr.
(May be repeated once for credit.)

SPAN 6397 Directed Study 3cr.
Readings, conferences, reports, and a research paper under the direction of a member of the graduate faculty. (May be repeated once for credit.)

SPAN 7000 Thesis Research 1-9cr.
To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned

SPAN 7040 Examination or Thesis Only 0cr.
Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

Special Education and Habilitative Services

EDSP 3001 Field Experience Differentiated in Curriculum and Instruction 1cr.
Prerequisite: Concurrent enrollment in EDUC 3100. This is a required one-credit hour field experience that supports candidates in applying the content of EDUC 3100 within the classroom. Candidates must spend two hours weekly in school settings to implement required field activities. Candidate field work will generate artifacts to document performance of required competencies.

EDSP 3610 Methods of Teaching Students with Mild-Moderate Disabilities 2cr.
Prerequisite: Admission to Tier II and EDUC 2200 or concurrent enrollment in EDUC 2200. Must be taken concurrently with EDSP 3611, the field experience course. Study and application of recommended practices related to curriculum development, assessment, teaching strategies, instructional materials, collaboration, advocacy, and professionalism in special education.

EDSP 3611 Field Experience: for EDSP 3610 1cr.
Prerequisite: Concurrent enrollment in EDSP 3610. This is a required one-credit-hour Field Experience that supports candidates in applying the content of EDSP 3610 within the classroom. Candidates must spend two hours weekly in school settings to implement required field activities. Candidate field work will generate artifacts to document performance of required competencies.

EDSP 3620 Implementing & Evaluating Effective Instruction for Students with Mild-Moderate Disabilities 2cr.
Prerequisite: EDSP 3610 and admission into Tier III or consent of department. Concurrent enrollment in EDSP 3621 Field Experience. Study and application of recommended practices related to teaching language arts, mathematics, science, and social studies to students with mild/moderate disabilities.

EDSP 3621 Field Experience: Methods of Teaching Basic Subjects to Students with Mild-Moderate Disabilities 1cr.
Prerequisite: Concurrent enrollment in EDSP 3620. This is a required one-credit hour Field Experience that supports candidates in applying the content of EDSP 3620 with the classroom. Candidates must spend two hours weekly in school settings to implement required field activities. Candidate field work will generate artifacts to document performance of required competencies.

EDSP 3630 Methods of Designing and Assessing Materials for Individuals with Mild Moderate Handicaps 3cr.
Prerequisite: EDSP 3610 or consent of department. The emphasis of the course is on designing and assessing materials to meet the individual educational needs of individuals with mild moderate handicaps.

EDSP 3640 Effective Instruction for Transition-Aged Students with Disabilities 2cr.
Prerequisite: EDSP 3620, admission into Tier III (or consent of department), and concurrent enrollment in EDSP 3641. Design and implementation of effective instructional strategies, including transition planning, for secondary students with mild-moderate disabilities.

EDSP 3641 Field Experience: Effective Instruction for Transition-Aged Students with Disabilities 1cr.

Prerequisite: Concurrent enrollment in EDSP 3640. This is a required one-credit-hour Field Experience that supports candidates in applying the content of EDSP 3640 within the classroom. Candidates must spend two hours weekly in school settings to implement required field activities. Candidate field work will generate artifacts to document performance of required competencies.

EDSP 3982 Independent Study in Special Education and Habilitative Services 1cr.
Prerequisite: Consent of instructor. Investigations of pertinent problems under the direction of a faculty member. This course may be repeated but the total credit may not exceed six semester hours. Section number will correspond with credits to be earned.

EDSP 4000 Introduction to the Study of People with Exceptionalities 3cr.
A survey of all areas of exceptionality. Mental, physical, psychological, and social characteristics in an educational frame of reference.

EDSP 4010 Introduction Instructional Issues for Students with Severe Disabilities 3cr.
Examination of key issues related to the design, implementation, and evaluation of effective educational services for learners with severe disabilities. Emphasis on population characteristics, current service delivery issues, legislation and litigation, initial instructional design strategies, and student level instructional issues. Students also are introduced to professional development strategies which will be continued throughout the program of study. Students must complete a professional development plan through participation in a field experience cohort as a component of this course.

EDSP 4020 Initial Issues in Assessment, Mild/Moderate Disabilities 2cr.
Prerequisite: Admission to the Non-degree Teacher Certification Program or consent of the Department. Initial study and application of recommended practices for teaching students with mild/moderate disabilities. Available for graduate credit only.

EDSP 4030 Intermediate Issues Mild/Moderate Disabilities 2cr.
Prerequisite: EDSP 4020 and admission to Level 2 of the Non-degree (Post-Baccalaureate) Teacher Certification program. Intermediate level study and application of recommended practices for teaching students with mild/moderate disabilities. This course offered for graduate credit only.

EDSP 4060 Behavior Modification in Applied Settings 3cr.
The study of and use of behavior modification techniques in applied settings. In conjunction with coursework students must complete a behavior change project in an applied setting.

EDSP 4080 Strengthening Family and Community Partnerships 3cr.
Prerequisite: EDSP 4010 or 4550 consent of department. Examination of the impact of individuals with severe handicaps on the family. Emphasis on techniques for involving family and community resources in the design, delivery, and evaluation of education/intervention services.

EDSP 4210 Initial Guidelines and Strategies for Designing Implementing, and Evaluating Effective Practices for Teaching Students with Mild/Moderate Disabilities 2cr.
Prerequisite: Acceptance into the Non-degree (Post-Baccalaureate) Teacher Certification program or consent of the Department. Initial study and application of recommended practices for teaching students with mild/moderate disabilities. This course offered for graduate credit only.

EDSP 4220 Intermediate Guidelines and Strategies for Designing, Implementing, and Evaluating Effective Practices for Teaching Students with Mild/Moderate Disabilities 2cr.
Prerequisite: EDSP 4210 or concurrent enrollment in EDSP 4210. Intermediate level study and application of recommended practices for teaching students with mild/moderate disabilities. This course offered for graduate credit only.

EDSP 4230 Behavior Support for Students with Mild/Moderate Disabilities 2cr.
Prerequisite: Admission to Level 2 of the Non-degree (Post-Baccalaureate) Teacher Certification program. This course presents research-based strategies to support positive behavior of students with disabilities. Assigned field work results in artifacts used to document candidate performance. This course offered for graduate credit only.

EDSP 4240 Secondary and Transition Issues for Students with Disabilities 2cr.
Prerequisite: Admission to Level II of the Non-degree (Post-Baccalaureate) Teacher Certification program, EDUC 4100 and EDSP 4030. A study of effective practices for secondary aged students with disabilities including planning for transition to successful adult work, living, and post-secondary options. This course offered for graduate credit only.

EDSP 4420 Foundations in Deaf Education 3cr.
The physiological, psychological, historical, and sociological and cultural aspects of deafness and hearing loss.

EDSP 4440 Sign Language I 3cr.
An introduction to sign language and fingerspelling. Receptive and expressive sign language skills will be emphasized with specific focus on the ability to participate in functional communication situational. An overview of the variety of sign systems used in educational settings will be presented.

EDSP 4450 Sign Language II 3cr.
Prerequisite: EDSP 4440. A course designed to develop both receptive and expressive fluency in Sign Language(s) according to the needs of the individuals in the class.

EDSP 4510 Introduction to the Gifted and Talented 3cr.
Characteristics, identification, needs, teacher qualifications, and organizational patterns for the gifted and talented.

EDSP 4550 Early Intervention for the Child with Disabilities 3cr.
Prerequisite: EDCI 4500 or consent of department. A study of typical and atypical development during the first five years of life. An overview of assessment, curriculum, and intervention models appropriate for preschool aged children with disabilities.

EDSP 4630 Humanistic Approaches to Managing Students with Behavioral Problems 3cr.
Group and individual interventions and classroom management techniques for students with behavioral problems. Emphasis on humanistic conceptual models of student variance.

EDSP 4721 Effective Instruction of Students with Mild/Moderate Disabilities 5cr.
Prerequisite: Concurrent with EDUC 4200. Introductory course in the Teach Greater New Orleans (TGNO) Practitioner Teacher Program. Study and application of key issues and best practices in teaching students with mild/moderate disabilities. Content areas of study include federal and state legislation and litigation, design, implementation, and evaluation of effective service delivery, transition issues, and classroom management and behavior support. Offered for graduate credit only.

EDSP 4722 Effective Instruction of Student with Mild/Moderate Disabilities: Initial Practitioner Seminar 3cr.
Prerequisites: EDSP 4721G, concurrent enrollment in EDUC 4701. Study and application of effective instructional and behavioral practices for teaching students with mild/moderate disabilities. Second EDSP course in the Teach Greater New Orleans(TGNO) Practitioner Teacher Program. Builds on the knowledge and skills acquired in 4721G. Professional development, school improvement, and all portfolio components of effective teaching are introduced. Offered for graduate credit only.

EDSP 4723 Seminar Mild/Moderate Disabilities: Intermediate 3cr.
Prerequisites: EDSP 4722G, EDUC 4701; concurrent enrollment in EDUC 4702. Continued application and refinement of instructional, transition, and behavioral practices for teaching students with mild/moderate disabilities. Third EDSP course in the Teach Greater New Orleans (TGNO) Practitioner Teacher Program. Emphasis on advanced instructional and behavioral issues, and refinement and completion of a teaching portfolio. Offered for graduate credit only.

EDSP 4775 Tests and Measurements for Exceptional Individuals 3cr.
Prerequisite: Minimum grade of C in EDCI 3140 or consent of department. Definition and terminology in tests and measurements as employed with exceptional individuals. Description, analysis, and interpretation of various formal and informal evaluation instruments and practices.

EDSP 4776 Practicum in Tests and Measurements for Individuals with Exceptionalities 3cr.
Prerequisites: EDSP 3620, 4775, or consent of the department. Conducted under the supervision of university personnel. Required activities include exposure to and experience with informal testing, use of formal evaluation results to generate Individual Education Plans (IEP's), and participation in IEP conferences.

EDSP 4800 Introduction to Individuals who have Visual Impairments 3cr.
A survey of the development of the visual system and the needs of individuals with a visual impairment. Designed to assist teachers and other service providers in the knowledge of 1) intervention strategies to be used with students who are visually impaired and 2) various service delivery systems for individuals with a visual impairment.

EDSP 4810 Structure and Foundation of the Eye 3cr.
Designed to provide an orientation to the parts of the eye and their functions; abnormalities and conditions that result in varying degrees of visual loss; and general considerations which these losses require in educational programming.

EDSP 4820 Introduction to Braille 3cr.
Mastery of the English Braille Code Grade II (Literacy Braille Format); emphasis will be placed on transcribing through the visual modality

EDSP 4830 Orientation and Mobility Training for Individuals Who Are Visually Impaired 3cr.
Concepts and techniques involved in orientation, mobility, and daily living skills for individuals with a visual impairment.

EDSP 4990 Special Topics in Special Education and Habilitative Services 3cr.
Prerequisite: consent of the department. Topics will vary from semester to semester. This course may be repeated once for credit.

EDSP 6000 A Study of Severe Communication Disorders 3cr.
Prerequisite: EDSP 6040 or consent of department. A study of assessment and instructional strategies for nonsymbolic communication and prelanguage/language skills. Design of alternative and augmentative communication systems for learners with severe disabilities. Emphasis on strategies to increase meaningful communication opportunities across multiple partners situations and settings.

EDSP 6010 Strategies for Managing Group Behaviors of Exceptional Populations 3cr.
Prerequisite: EDSP 4000 or consent of department. Effective strategies for group and whole school management with an emphasis on exceptional populations.

EDSP 6030 Health and Physical Considerations for Individuals with Severe Disabilities 3cr.
Prerequisite: EDSP 4010, 4550, or consent of the department. An overview of educational considerations for students with special needs related to physical disabilities and/or health care. Emphasis on adaptation of curriculum and setting to meet the identified health and safety needs of learners with physical and multiple disabilities. Overview of positioning and handling techniques as well as safety and health care procedures including suctioning, seizure management, and gastronomy tube feeding.

EDSP 6040 Intermediate Instructional Issues for Students with Severe Disabilities 3cr.
Prerequisites: EDSP 4060 and 4070 or consent of department. Continued examination of key issues related to the design, implementation, and evaluation of effective educational services for learners with severe disabilities. Emphasis on curriculum design, effective instructional strategies, and classroom level instructional issues. Students must complete a professional development plan through participation in a field experience cohort as a component of this course.

EDSP 6050 Advanced Instructional Issues for Student with Severe Disabilities 3cr.
Prerequisites: EDSP 6040 or consent of department. Continued examination of key issues related to design, implementation, and evaluation of effective educational services for learners with severe disabilities. Emphasis on advanced instructional issues including: meeting the needs of special populations, making data-based decisions, addressing building level instructional issues, and adjusting existing strategies to improve their effectiveness. Students must complete a professional development plan through participation in a field experience cohort as a component of this course.

EDSP 6060 Advanced Applied Behavior Analysis 3cr.
Prerequisite: EDSP 4060 or consent of the department. Study of applied behavior analysis and single subject research designs to implement educational and habilitative programs in applied settings. Two hours of lecture and two hours of laboratory.

EDSP 6070 Educational Team Strategies 3cr.
Prerequisite: EDSP 4010 or consent of the department. A study of approaches to organizing the resources of early intervention and educational teams that meet the needs of individuals with severe disabilities more effectively. Emphasis on team strategies related to assessment, design of instructional and intervention strategies, program development, and evaluation. Students enrolled in the severe/profound disabilities area must complete a professional development plan through participation in a field experience cohort as a component of this course.

EDSP 6080 Organization and Administration of Special Education and Habilitative Services 3cr.
An analysis of procedures, supervisory techniques, and applications of communication media to provide services for individuals with exceptionalities by using local, state, and national resources.

EDSP 6210 Introduction to People with Autism 3cr.
An exploration of how the diagnosis of autism is established a review of current research and a consideration of the management of people with autism in schools and in the community.

EDSP 6420 Educational Audiology 3cr.
The application of current audiological technology and techniques to deaf education and speech therapy for the deaf. A basic course in audiology for teachers in all areas of Special Education, but particularly for those in deaf education, assessment, and supervision of Special Education.

EDSP 6440 Language Development and Instructional Strategies for Deaf and Hard of Hearing Child 3cr.
A survey of language development focusing on linguistic principles in language acquisition of hearing and of deaf and hard of hearing children. Linguistic structural attributes of English and American Sign Language will be presented as well as a review of current strategies of language assessment and instruction for deaf and hard of hearing students.

EDSP 6460 Methods of Teaching Speech and Speechreading to Deaf and Hard of Hearing Students 3cr.
No prerequisites. The courses in the area of Deaf Education can be taken independently of one another.

EDSP 6470 Home School Education for Deaf Infants and Toddlers 3cr.
Theories of early childhood development and related instructional methodologies for hearing impaired infants and toddlers and their parents.

EDSP 6480 Instruction Strategies and Curriculum Development for Deaf and Hard of Hearing Students3cr.
Utilization of curricular and language theories and principles of deaf education to create or choose a practical sequence of learning activities for deaf and hard of hearing students. Includes methods of teaching basic subjects to deaf students.

EDSP 6510 Social and Emotional Needs of the Gifted 3cr.
Prerequisites: EDSP 4510 or consent of department. Defines the distinctive emotional needs of the gifted and presents strategies that educators can use to help the gifted meet those needs at school and at home.

EDSP 6540 Educational Strategies for the Gifted and Talented 3cr.
Prerequisite: EDSP 4510 or consent of department. Curricular methods, materials, and resources for teaching the gifted and talented.

EDSP 6545 Literature for the Gifted and Talented 3cr.
(EDLS 6545 and EDSP 6545 are cross-listed) An exploration of research relating to reading behavior of gifted youngsters, examination of criteria for assessing books useful in promoting cognitive growth of high-ability children, and selection and utilization of literature with this population.

EDSP 6550 Gifted Talented: Curriculum Development and Program Organization 3cr.
Prerequisites: EDSP 4510 and EDCI 6600 or consent of department. Procedures for curriculum development and program organization for the gifted and talented.

EDSP 6555 Educational Provisions & Classroom Management of Children with Disabilities in Early Intervention Pr 3cr.
Prerequisite: EDSP 4550, 4080, 6560, 6030 or consent of department. In-depth examination of assessment techniques educational procedures and intervention strategies appropriate for early childhood programs serving children who are disabled.

EDSP 6560 Language Development and Language Disabilitiesof Children from Birth to Five Years 3cr.
Prerequisite: EDSP 4550. Typical and atypical language development and appropriate prevention and intervention procedures for children during the first five years of development.

EDSP 6570 Interventions with Infants Who Have Known or Suspected Disabilities 3cr.
Prerequisite: EDSP 4550, 7080, 6560, 6030 or consent of department. A study of typical and atypical development during the first three years of life. Examination of preventive and ameliorative strategies for infants who have known or suspected disabilities and their families.

EDSP 6610 Advanced Methods of Teaching Students with Learning and Behavior Problems 3cr.
Prerequisite: EDSP 4601 or consent of department. Explores the theory and research underlying the various approaches used in teaching students with mild moderate handicaps.

EDSP 6620 Advanced Methods of Teaching Basic Subjects to Students with Mild/Moderate Disabilities 3cr.
Prerequisite: EDSP 6610 or consent of department. Advanced study and application of recommended practices related to teaching language arts, mathematics, science, and social studies to students with mild/moderate disabilities.

EDSP 6625 Advanced Transition Planning for Students with Disabilities 3cr.
Prerequisite: EDSP 6040 or both EDSP 6610 and 6620 or consent of the department. An analysis of the role of a special education teacher in planning, instructing, and implementing a program for students with disabilities which supports the transition from school to adult roles including work. 1996 - 1998 Catalog Prerequisite: EDSP 4000 or EDSP 4010 or consent of the department.

EDSP 6630 Advanced Methods of Designing and Assessing Materials for Mild Moderate Handicapped Students 3cr.
Prerequisite: EDSP 6620 or consent of the department. An in-depth study of the selection, use, analysis, adaptation and development of instructional materials and curricula. Emphasis will also be placed on research and trends in materials and curricula development.

EDSP 6640 Language Development Diagnosis Intervention: Mild Moderate Disabilities 3cr.
Language development, diagnosis, and intervention with students who have mild moderate language learning disabilities.

EDSP 6775 Individual Intelligence Testing 3cr.
Rationale and practicum for those individual intelligence tests most frequently used in educational assessment.

EDSP 6780 Psychoeducational Assessment of Individuals with Exceptionalities 3cr.
Prerequisite: EDSP 4775 or consent of department. Rationale for and clinical application of psychoeducational assessment procedures. Analysis and synthesis of diagnostic information used in designing appropriate educational programs and planning for individuals with exceptionalities.

EDSP 6781 Consultation and Collaboration in Special Education 3cr.
Process and content considerations of consultation and collaboration used in the teaming approach. Applications of such methodologies will be to the inclusive settings (school work and community) in the delivery of services to individuals with exceptionalities.

EDSP 6785 Diagnostic Prescriptive Strategies for Individuals with Exceptionalities 3cr.
Prerequisites: EDSP 4775 and 6780 or consent of department.

Precision assessment of and programming for individuals with exceptionalities; administration of informal and selected formal evaluation instruments; and interpretation and application of results to instructional programming for individuals in a variety of settings.

EDSP 6840 Instructional Strategies for Individuals with Visual Impairments 3cr.
The utilization, development, and evaluation of methods and materials for persons with visual impairments and the study of the organization of program components and priorities for individuals with visual impairments.

EDSP 6850 Advanced Educational Procedures for Students with Visual Impairments 3cr.
A study of advanced educational strategies utilized in teaching students with visual impairments. Examination of procedures for teaching braille reading, the Nemeth braille code for mathematics and science, and the use of electronic devices for reading and orientation and mobility.

EDSP 6860 Low Vision and Its Educational Implications 3cr.
A study of the educational strategies utilized in teaching students with low vision. Examination of the procedures and equipment used for educating students who are partially sighted.

EDSP 6870 Education of Individuals with Deaf-Blindness and Multiple Disabilities 3cr.
Characteristics assessment and educational strategies for individuals with deaf/blind and multiple disabilities. Habilitation and vocational considerations will be addressed.

EDSP 6900 Practicum in Education Habilitation of Individuals with Severe Profound Handicaps 3cr.
Prerequisite: consent of department. Field work, observations, seminars, lectures, and/or empirical research projects in programs that provide services for individuals with severe profound handicapping conditions.

EDSP 6945 Practicum in Education of the Hearing-Impaired Student 3cr.
Prerequisite: consent of department. Field work, observations, seminars, lectures, and/or empirical research projects with hearing impaired children or adults in an academic or rehabilitation setting.

EDSP 6950 Practicum in Gifted and Talented 3cr.
Prerequisites: EDSP 6540 and consent of department. Field work, observations, seminars, lectures, and/or empirical research project in gifted and talented.

EDSP 6955 Practicum in Early Intervention 3cr.
Offered each semester. Prerequisite: consent of department. Field work, observations, seminars, lectures, and/or empirical research project in early intervention programs for the children with disabilities. Section number will correspond with the credit hours to be earned. Course may be repeated for a maximum of six credit hours.

EDSP 6960 Practicum in Mild Moderate Special Education and Habilitative Services 3cr.
Prerequisite: EDSP 6620 and consent of department. Field work, observations, seminars, lectures and/or empirical research projects in programs that provide services for individuals with mild moderate conditions.

EDSP 6961 Practicum in Mainstreaming Students with Mild Moderate Handicapping Conditions 3cr.
The Practicum in Mainstreaming Students with Mild Moderate Handicapping Conditions will provide students with field work, observation, seminars, lectures, and applied research projects in education students. Students should have completed all courses required for certification in mild moderate special education. Consent of the department is required.

EDSP 6962 Student Teaching in Special Education 9cr.
Student Teaching in Special Education is open to those graduate students who are working toward certification in special education and who do not currently hold a teaching position. Field work, observations, seminars, lectures, and applied research projects in programs that provide services for individuals with handicapping conditions. Consent of the department is required. Students should have completed all courses required for certification in special education area of concentration.

EDSP 6963 Internship in Special Education 6cr.
The internship is open only to those students who presently hold a teaching position in a special education classroom and are under teaching contract for an academic school year. Professional teaching responsibilities, observations, seminars, lectures, and applied research projects are required. Students should have completed all courses required for certification in special education area of concentration. The approval of the Department of Special Education and Habilitative Services is required. (6 credits per semester for a total of 12 for the academic year)

EDSP 6964 Computers and Assistive Technology in Special Education 3cr.
Critical issues related to using computers and assistive technology to accommodate educational, social, and vocational needs of people with exceptionalities.

EDSP 6970 Practicum in Psychoeducational Diagnosis 3cr.
Prerequisite: consent of the department. Conducted under the direct supervision of certified educational consultants or certified assessment teachers in on-site settings. Required activities include observation, preparation, testing, scoring and interpretation, staffing, report writing, and participation in Individual Educational Plan conferences.

EDSP 6980 Practicum in Visual Impairment 3cr.
The course consists of supervised field work, observations, seminars, lectures, and/or empirical research in the area of visual impairment.

EDSP 6981 Seminar in Special Education and Habilitative Services 3cr.
Prerequisite: admission by permission of the Department of Special Education and Habilitative Services. Discussion of critical issues, critique of literature, development of theories, models with respect to handicapping conditions.

EDSP 6982 Independent Study in Special Education and Habilitative Services 1cr.
Prerequisite: consent of the department and major professor. Investigations of pertinent problems under the direction of a graduate faculty member. This course may be repeated but total credit may not exceed six semester hours. Section number will correspond with credit to be earned.

EDSP 6985 Internship in Special Education and Habilitative Services 3cr.
Prerequisite: consent of the department. Assignment to a variety of educational clinical and service settings that are concerned with the diagnosis remediation and/or treatment of individuals with exceptional needs.

EDSP 6990 Selected Topics in Special Education and Habilitative Services 1cr.
Prerequisite: consent of the department. Topic will vary from

semester to semester. Section number will correspond with the credit hours to be earned. Course may be repeated for a maximum

EDSP 7000 Thesis Research 1cr.
To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

EDSP 7010 Introductory Doctoral Seminar: Leadership Roles in Special Education and Habilitative Services 3cr.
Prerequisite: doctoral student standing in the Department of Special Education and Habilitative Services or consent of department. An initial study of the roles and issues related to personnel preparation research and systems intervention in the field of special education and habilitative services.

EDSP 7015 Doctoral Seminar in Systems Intervention 3cr.
Prerequisite: EDSP 7010 and doctoral student standing in the Department of Special Education and Habilitative Services or consent of department. An examination of the leadership roles and requisite skills for a systems change agent within the field of special education and habilitative services.

EDSP 7020 Doctoral Seminar in Personnel Preparation 3cr.
Prerequisite: EDSP 7010, doctoral student standing in the Department of Special Education and Habilitative Services or consent of department. An examination of the role of the university faculty member involved in the preparation of special education personnel.

EDSP 7025 Doctoral Seminar in Special Education Research 3cr.
Prerequisite: EDSP 7010, doctoral student standing in the Department of Special Education and Habilitative Services or consent of department. An examination of the leadership roles for a researcher within special education and habilitative services.

EDSP 7030 Advanced Doctoral Seminar: Leadership Roles in Special Education and Habilitative Service 3cr.
Prerequisites: EDSP 7010, 7015, 7020, and 7025 and doctoral student standing in the Department of Special Education and Habilitative Service or consent of the department. Advanced study of the roles and issues related to personnel preparation, research, and systems intervention in the field of special education and habilitative services.

EDSP 7040 Examination or Thesis Only 0cr.
Prerequisite: consent of department. No credit. Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

EDSP 7050 Dissertation Research 1cr.
Offered each semester. Prerequisite: approval by the candidate's graduate committee. To be repeated for credit until the dissertation is accepted. Section number will correspond with credit to be earned.

University Success

UNIV 1001 University Success 1cr.
Letter-graded course strongly recommended for entering freshmen and transfer students. Students meet in small groups led by an experienced faculty member or senior administrator for an indepth review of skills and issues relevant to academic and personal success at the University. Topics include time management, effective note-taking and test preparation, campus diversity, and university resources. Enrollment is restricted to students with less then 30 hours of credit, or transfer students within their first two semesters at UNO.

Urban Studies

URBN 2999 Public Service 1cr.
Offered each semester. Prerequisite: approval of the University Honors Program. Participation in an on-going public service project as an unpaid volunteer to learn about service work. Participants are expected to contribute an average of three hours per week at times mutually agreeable to the individual and the organization.

URBN 3002 Introduction to Urban Studies 3cr.

URBN 3100 Intermodal Transportation 3cr.
Prerequisite: None. Introduction to the theory and application of intermodal transportation systems nationally and internationally. Topics to be included will include modal interconnectivity, logistics management, intelligent transportation systems applications, federal transportation legislation, transportation security, and statewide intermodal transportation planning and implementation. The course will include on-site tours of several intermodal transportation facilities.

URBN 3140 Fundamentals of Environmental Planning 3cr.
This course is designed for undergraduate students and will present the fundamental and contemporary concepts of environmental planning. The course presents both the context within which environmental planning takes place and its structural framework as it relates to scientific research, environmental policy, and future trends. Lectures, examination of local planning efforts, research and in-class discussions will be combined to expand knowledge and interest in the field of environmental planning.

URBN 3200 Maritime Transportation 3cr.
An introduction to the topic of maritime transportation. It is intended to acquaint the student with a broad range of topics associated with this form of cargo transportation.

URBN 3300 Introduction to Waterborne Freight Transportation 3cr.
An introduction to the world of international waterborne shipping. The course will provide a broad familiarity with national and international maritime systems. It will be of interest to students seeking a career in fleet and port planning and management.

URBN 3710 Fundamentals of Urban Design 3cr.
This course provides a combination of lectures, illustrations and hands-on project development opportunities in the field of design. It is basic in nature, tailored to the undergraduate curriculum and promotes the analysis and understanding of urban design issues and projects.

URBN 4000 The New Orleans Metropolitan Region 3cr.
Prerequisite: consent of school. A study of social, cultural, economic, and political history and organization of the New Orleans region from the point of view of systematic social planning.

URBN 4002 The Shape of the City 3cr.
Normally offered in telecourse format. Available for graduate credit with the submission of a term paper. The course focuses on those forces which have impacted and shaped major United States cities since the end of World War II. Comparisons between New Orleans and other major cities are drawn. An active discussion board is maintained on the internet as part of the course, and student participation is expected.

URBN 4003 The Post World War II City 3cr.
This is a telecourse with which the student interacts over the internet. It is a survey of some of the major structural and fiscal changes that have impacted the post-war American city. Participation in moderated discussion groups is required. The

course can be taken for graduate credit, which requires the student to prepare a term paper.

URBN 4150 Planning for Hazards 3cr.
This course examines and analyzes the occurrence, magnitude, and distribution of a broad variety of hazards and discusses appropriate public policy responses in order to protect public safety and to reduce physical and economic damage.

URBN 4165 Policy Dimensions of Disaster Preparedness 3cr.
This course examines the effects of alternative policy decisions on disaster preparedness. Discussions will be based on disaster policy studies and case studies in hopes of answering such questions as "What is the role of local/state/federal governments in disaster management," How do key interest groups influence the formulation of disaster policies," and "Do disaster policies differ from other types of policies."

URBN 4603 Research in New Orleans History 3cr.
(HIST 4603 and URBN 4603 are cross-listed) Prerequisite: HIST 2603 or HIST 4543 or consent of instructor. A detailed survey of qualitative research techniques, their application to local and urban history, and the preparation of a written project based on primary research in New Orleans history.

URBN 4670 Grantwriting for Planners 3cr.
This course will review all aspects of writing grants for public funding through federal, state and local governments and for private funding from corporations, foundations and non-profit organizations. Techniques of grantwriting including grant application preparation, project research, funding authority backgrounds, legal requirements, financial projections and project management will be reviewed. Specific tools such as letters of intent, request for proposals, request for qualifications and public bid responses will be covered in this course along with follow-through aspects of project management, project audits and project scheduling.

URBN 4800 Studies in Special Urban Problems 3cr.
Prerequisite: consent of school. This course is a study of urbanization and population the city as a social and cultural environment and social problems of cities.

URBN 4810 Environmental Justice in Urban Environments 3cr.
Prerequisites: URBN 4030 or URBN 4140 or consent of college. This course examines the treatment of all groups in the US with respect to benefits and burdens from the development, implementation and enforcement of environmental laws, regulations and processes. Particular emphasis is given to the problems of the disproportionate siting of hazardous waste treatment, storage, disposal, and recycling facilities in poor and minority neighborhoods.

URBN 4900 Independent Study 3cr.
Prerequisite: consent of school. Independent research under the direction of a designated member of the faculty. May be repeated once. Maximum of six credit hours allowed. Not for graduate credit.

URBN 6000 Seminal Research in Urban Studies 3cr.
Prerequisite: consent of college. This course is to provide students with an in-depth understanding of a particular facet of the interdisciplinary field of urban studies. It will do so by requiring the students to critically evaluate Seminal works in urban studies. The topic of the seminar will vary from year to year depending on the background and interest of the instructor.

URBN 6001 Research Methods 3cr.
Prerequisites: None. This course will provide students with an understanding of the research process, research methodologies, and the appropriate application of different research approaches. In addition, students will learn how to evaluate the strength of research findings based on the methods used by the researcher. Topics covered include research design, conceptualization, measurement, sampling, data collection, and research ethics.

URBN 6005 Statistics for Urban Analysis 3cr.
Prerequisite: PADM 4801. A course in the gathering, structuring, exploration, and analysis of government and private data scores pertaining to American and international urbanization for students who have completed URBN 4801 or who hold equivalent level of computer literacy.

URBN 6165 Urban Public Policy Analysis 3cr.
Spring semester. Prerequisite: consent of school. A seminar on benefit-cost analysis as applied to decisions of public policy (especially with regard to alternative public projects and programs). Subject matter will include: traditional benefit-cost analysis including notions of present value, externalities, and secondary effects; and extensions of benefit-cost analysis such as the planning balance sheet, goals achievement matrix, and social indicator analysis.

URBN 6400 Urban Criminal Justice Systems 3cr.
Criminal Justice Planning and Administrative Systems are assessed in the context of the urban environment. The course reviews conventional techniques of crime analysis (and why they fail), the relationship of crime to the growth of a bureaucratic society, and the requirements for planning in such a context.

URBN 6510 Urban-Rural Issues in Developing Countries 3cr.
Prerequisite: GEOG 4630 or URBN 4030 or consent of department. This seminar will explore the relationship between urbanization and the development process, with primary emphasis on the ways in which the content and outcomes of public policies affect the distribution of population and wealth. Issues to be covered include regional imbalances, migration, labor mobility, and housing.

URBN 6700 Urban Spatial Analysis 3cr.
Prerequisite: consent of school. This course is designed to familiarize the student with spatial models and geographic techniques of metropolitan area analysis. It includes a systematic study of external and internal spatial relationships of cities and city systems. The urban field is examined in terms of images, patterns, processes, networks, communities, activities, problems, and prospects.

URBN 6801 Seminar: Urban Analysis-Computers and Simulation 3cr.
Prerequisite: consent of school. This is a methodology seminar in urban research, specifically emphasizing the use of computers and simulation techniques.

URBN 6871 Environmental Analysis 3cr.
Prerequisite: URBN 6850 or consent of coordinators. An investigation of environmental problems from a sociological perspective, with an emphasis on environmental analysis, management, and policy.

URBN 6900 Independent Study 3cr.
Offered each semester. Independent research in the graduate student's area of specialization under the direction of a designated member of the graduate faculty. May be repeated for credit.

URBN 7000 Thesis Research 1-9cr.
Offered each semester. To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

URBN 7040 Examination or Thesis Only No credit 0cr.
Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

Urban and Regional Planning

MURP 4001 Comparative Urban Planning 3cr.
Prerequisite: consent of school. An introduction to the development patterns and processes of great cities in a context emphasizing comparisons with New Orleans. The course will focus on the planning issue with which these cities have dealt and look to the future concerns of the city and region with which the planners must reckon. Field work will be an integral part of the course, and will require students to study in the host country. Cities selected for comparative study will be varied to cover North American, South American, Asian, African, and European examples, with one semester devoted to an in-depth study of a particular city. May be repeated once for credit with approval of the school.

MURP 4005 Introduction to Neighborhood Planning 3cr.
This class introduces students to the underlying processes of neighborhood-based planning and explores the role of the neighborhoods in the urban environment. Through class lectures, discussion of assigned readings, and presentations of planning initiatives undertaken in a variety of New Orleans' neighborhoods, students will explore the components of neighborhood development, change, and planning.

MURP 4010 Introduction to Historic Preservation 3cr.
The introduction to Historic Preservation provides a broad overview of the historical, architectural, political, social economic, administrative and legal aspects of historic preservation.

MURP 4020 Historic Houses and Districts 3cr.
This course explores the variety of resources available for the restoration or renovation of historic properties and the most effective for employing these resources. Beginning with the assessment of a property's current condition, students learn to recognize clues to a building's past, to understand how a plan for renovation or restoration is developed, and to evaluate a successful finished project. The class includes guest speakers and site visits to projects in varying stages of re-development.

MURP 4030 Social Policy Planning 3cr.
Fall semester. Prerequisite: consent of school. The course will investigate operational approaches to social planning. Problem conceptualization will be emphasized and methods to express and satisfy human needs in planning discussed.

MURP 4050 Urban Land Use Planning and Plan Making 3cr.
Prerequisite: Concurrent enrollment in MURP 4051. This course provides students with an understanding of land use planning principles, methods and formats. In addition, students will gain the skills needed to create an effective and appropriate land use plan for a small city. Topics include: how to assess the strengths and weaknesses of various land use plan-making methods and plan formats; how to describe existing and emerging community conditions; how to formulate goals; how to design a future urban regional form that meets community objectives; and how to formulate a plan in a professional manner.

MURP 4051 Urban Land Use Planning and Plan Making Laboratory 1cr.
Prerequisite: Concurrent enrollment in MURP 4050. One hour of laboratory each week to accompany MURP 4050. Practical application of the principles, processes and methods of land use planning. Students will complete a land use plan for a hypothetical small city by the end of the course.

MURP 4061 Introductory Transportation Planning 3cr.
This course provides an introduction to the practice of urban transportation planning. The course concentrates primarily on providing a general over-view of the transportation planning process. Emphasis is placed on specific elements of that process and specific components of the urban transportation system.

MURP 4070 Development Impact Assessment 3cr.
Prerequisite: MURP 4600 or consent of department. This course reviews the major techniques used in evaluating the socioeconomic and fiscal impacts of land development projects on communities. Case studies will be used for illustration.

MURP 4071 Historic Preservation Law 3cr.
This course examines the evolution of Historic preservation law in the United States. Emphasis is placed on policies, court decisions and laws that impact the cultural and historic resources of Louisiana and particularly the City of New Orleans. This course analyzes the legal techniques and strategies that developers and preservationists have used to achieve their objectives. Enrollment does not require prior knowledge of the law.

MURP 4081 Information Technology for the Planning Profession 3cr.
This course will provide an overview of computer-based technology widely used by planning professionals in demographic and land use analysis, environmental planning and development impact analysis. Students will be introduced to the appropriate application of information technology tools in the planning profession and will gain applied planning experience using current spatial software.

MURP 4085 Visual Technology and Digital City Planning 3cr.
This class will introduce students to the various ways that local governments and cities use information technologies to address such critical issues as improving service delivery, policy making and planning. Utilizing the controlled "hands-on" environment of a hypothetical city, students will explore the technical operations employing information technologies to build and use information systems effectively in local government. Students who do not have any previous experience with GIS should complete an ARC GIS tutorial by the end of the 3rd week of class. GEOG 4805 is recommended but not required.

MURP 4140 Environmental Planning 3cr.
Spring semester. This course focuses on the impact of public and private planning, policies, and programs on the natural and man-made environment of our urban regions. The subject matter includes environmental law, environmental impact statements, environmental politics, land use policy, air and water resources, energy policy, and solid wastes.

MURP 4145 Coastal Zone Planning and Administration 3cr.
Coastal zones are valuable natural resource areas that are fragile, in great demand, and in danger of system collapse. This course develops the concepts of coastal resources, examines the many strategies for resource management and administration, and analyzes guidelines and standards for planning activities in the coastal zone.

MURP 4160 Development of Environmental Management 3cr.
Seminar on techniques for managing urban development to further objectives specified in comprehensive development plans and to conserve environmental resources. Regulatory, public investment, incentive, and other policy instruments used in land use and environmental management are covered.

MURP 4200 American City Planning 3cr.
Fall semester. Prerequisite: consent of school. This course will deal with the evolution of urban and regional planning in the United States with particular focus on the last century. Emphasis will be placed on specific issues, programs, projects, and personalities instrumental in shaping the form of the American landscape and

cityscape and in developing urban planning as a profession.

MURP 4400 Introduction to Preservation Planning 3cr.
Prerequisite: consent of school. This course will provide an introduction to the urban planning techniques used for preserving historic buildings, neighborhoods, and districts within American cities.

MURP 4500 Energy Planning for Cities and Regions 3cr.
Prerequisite: consent of school. An introduction to national and Louisiana energy demands, resources, impacts, technologies, and policies especially as related to plan formulation in cities and regions. Particular emphasis is given to the energy relationship between New Orleans and the Louisiana coastal ecosystem.

MURP 4600 History and Practice of Planning 3cr.
(MURP 4600 and GEOG 4600 are cross-listed) This course introduces students to the history and practice of urban planning in the United States from its origins in the colonial era through the evolution of planning thought and programs in the 20th century. It also provides students with an understanding of how planning has evolved through recent history, and is being practiced currently. Emphasis will be placed on the components of comprehensive planning, the implementation of modern city plans, and the discussion of current planning issues.

MURP 4660 Negotiation and Mediation for Planners 3cr.
Prerequisite: Consent of College of Liberal Arts through the School of Urban Planning and Regional Studies. This course uses theory and gaming materials to build negotiation and mediation skills. The particular lessons covered include: the importance of assessing one's Best Alternative to a Negotiated Agreement (BATNA); the preconditions for collaborative problem solving; the application of utility theory to negotiation analysis; the significance of coalition building; the value of packaging options that trade across issues; criteria for evaluating negotiation outcomes; strategies for dealing with uncertainty and risk; the role of the media in public decision making; and the responsibility of facilitators, mediators, and dispute resolves. These lessons ought to be directly transferable to a student's current or future planning practice.

MURP 4700 Urban Aesthetics and Design Analysis 3cr.
This introductory design course deals with the impact, inventory, observation, analysis, and critique of the complex urban environment from a designer's viewpoint. Equal emphasis shall be given to the various component parts of the physical surroundings and their cumulative interactions. Urban and inventory, observation, analysis, and critique of the complex urban environment from a designer's viewpoint. Equal emphasis shall be given to the various component parts of the physical surroundings and their cumulative interactions. Urban and suburban structures, plazas, recreation areas, malls, streetscapes, landscapes, the neighborhood, and the private residence shall be considered.

MURP 4710 Urbanism and Urban Design 3cr.
Offered each semester. Prerequisite: consent of school. This course will deal with the history of urban design emerging methodologies analytical frameworks instruments and strategies the decision-making processes in urban design and the roles of urban designers.

MURP 4711 Principles of Landscaping 3cr.
This course will focus on major issues of present day landscaping architecture. Landscape and site design, plant material identification and usage, installation practices will be discussed. Special topics will include large tree relocation, landscaping as a profession, graphics and model building techniques, the workings of design process, and designer/client relations.

MURP 4750 Design and Management of Urban Parks 3cr.
This course will explore the essential elements of planning, design and management of urban parks and public spaces. A major focus of this course will be on how parks and open spaces contribute to the quality of life in communities and how they can help to promote revitalization efforts. Research methods to determine community needs, financing mechanisms, management strategies and evaluation techniques will be discussed along with design examples from a variety of U.S. and Canadian parks.

MURP 4800 Studies in Special Urban Problems 3cr.
Prerequisite: consent of school. This course is a study of urbanization and population the city as a social and cultural environment and social problems of cities.

MURP 4820 Tourism for Urban and Regional Planners 3cr.
An exploration of the international travel and tourism industry, focusing on the post-1950 period. The course will cover the rapid growth of tourism and its economic, social, cultural, and environmental impacts on countries, regions, and cities, with a particular emphasis on the role planners and policymakers play in promoting and regulating the industry.

MURP 4900 Independent Study 3cr.
Prerequisite: consent of school. Independent research under the direction of a designated member of the faculty. May be repeated once. Maximum of six credit hours allowed. Not for graduate credit.

MURP 6010 Planning for Neighborhoods and Smaller Communities 3cr.
Prerequisite: MURP 4600 or consent of school. This course examines the forces that have shaped America's neighborhoods and smaller communities, the unique problems that face them, and planning strategies available for their resolution.

MURP 6020 Analytic Methods for Planners 3cr.
Prerequisite: URBN 6005 or instructor's permission. An introduction to the application of quantitative analytical method used by professional planners and policy makers in urban and regional contexts. Topics include: population estimation and forecasting, economic forecasting, locational analysis, forecasting for transportation, housing, shopping, and recreational facilities, as well as project evaluation and monitoring. An emphasis will be placed on actual problem solving rather than an understanding of the pure mathematical basis of the techniques.

MURP 6051 Housing and Community Development 3cr.
Prerequisite: consent of school. This course is designed to give the student an introduction to the complex areas of housing and community development. Emphasis will be placed on examination of the federal role and the local response in implementing programs.

MURP 6061 Transportation Planning 3cr.
Prerequisites: MURP 6020 intermediate statistics and calculus, or consent of school. A seminar on the quantitative aspects of transportation planning. Included in the course material will be: transportation network concepts, minimum path through network algorithms, optimal network problems, trip distribution (gravity) models, and urban land use models.

MURP 6071 Zoning and Land Use Regulation 3cr.
Prerequisite: consent of school. The course is an introduction to the legal environment in which planners and urban professionals must operate. Using the case method and analytic examples, the seminar will concentrate on acquainting the beginning urban professional with such concepts as zoning, eminent domain, subdivision regulation, planned-unit development (PUD), and the law of nuisance.

MURP 6121 Methods of Urban and Regional Analysis II 3cr.
Prerequisite: MURP 6020 or consent of school. A seminar on application of advanced quantitative analytic methods in regional and

urban planning. The following topics will be presented: industrial complex analysis, regional and interregional linear programming, gravity models, game theory, concepts of regional development and regional conflict and cooperation analysis.

MURP 6130 Urban Development: A Social Perspective 3cr.
Prerequisite: MURP 4030 or consent of college. The emphasis of this course is on current urban problems in urban development and the planning methods and strategies used to meet the needs of diverse socio-economic groups. A single problem focus will be developed and possible solutions developed.

MURP 6140 Citizen Participation 3cr.
Prerequisite: MURP 4030 or consent of school. This seminar will explore the operational development of citizen participation and its inclusion as a vital element in the urban planning process. Emphasis will be placed on decentralization and participation in the design and delivery of urban public services at various levels of responsibility. Specific programs such as Community Development and neighborhood service units will be covered. Policy implications for local officials and urban planners will be discussed in an operational context.

MURP 6175 Case Studies in the Land Development Process 3cr.
Prerequisite: MURP 6170. This course will cover, by actual student practice, project packaging in the land development process. In addition to financial considerations (cash flow, leases, rents, subordination, and funding) this course will confront community relations and development, regulatory matters, market feasibility studies, politics, public bids, land exchanges, and other topics by analyzing carefully constructed cases of land development modeled after real-world developments.

MURP 6180 Site Planning 3cr.
Offered each semester. Prerequisite: MURP 4710 or equivalent design course or consent of college. This will examine the fundamentals of site planning and analysis including environmental considerations as related to the design process, and general factors affecting building location and orientation. It will explore the specific site requirements of different types of land uses including density, visual elements, buffers and parking requirements. Students will complete small and large scale projects involving the integration of numerous site elements for workable designs.

MURP 6401 Urban Public Works Planning 3cr.
Prerequisite: consent of school. An introduction to the public works functions in the urban environment. The course will examine the organization and operation of urban public works activities. Case studies of actual public works problems will be used to supplement lecture material.

MURP 6450 Local Economic Development Policy and Planning 3cr.
Prerequisite: None. This course provides students with an understanding of the theories, processes, and tools of local economic development. In addition, the course presents the realities of local economic development as currently practiced in the U.S. cities. The course emphasizes economic theory with a sensitivity to the political environment in cities and regions. Theories of development and economics as well as analytical tools used by local professionals will be shown as critical elements of sound local economic development planning.

MURP 6500 Urban Planning Practice in Developing Nations 3cr.
Prerequisites: MURP 4600 or consent of department. This course presents a study of urban and regional planning practice in developing countries. Urban development issues and planning paradigms will be discussed. Selected Less Developed Countries (LDC's) will be examined in detail.

MURP 6520 Comparative Planning and Urban Development: the Case of Industrialized Nations 3cr.
Prerequisite: MURP 4600 or consent of department. This seminar will explore the processes and strategies adopted by industrialized nations in planning for the development of their urban areas. Policy formulation and program implementation will be stressed, particularly in the areas of housing, central city revitalization, growth controls, and labor mobility.

MURP 6600 Planning Theory 3cr.
Prerequisite: Students must have graduate standing and completed MURP 4600 or have the consent of instructor or graduate coordinator. This seminar will explore in-depth various theories of urban and regional planning.

MURP 6601 Seminar: Urban Planning Models 3cr.
Spring semester. Prerequisite: consent of school. This seminar will be an in-depth study of advanced concepts and techniques of urban planning.

MURP 6605 Seminar in Land Use Analysis 3cr.
(GEOG 6605 and MURP 6605 are cross-listed) Prerequisite: consent of department. Intensive research into selected rural and/or urban land-use problems in their environmental and historical contexts. Course may be repeated once for credit.

MURP 6650 Recreational Planning 3cr.
Prerequisite: consent of school. This course deals with the impact of urbanization on the field of recreation. Recreation planning will be discussed in relationship to the overall comprehensive planning fabric specifically as it relates to the formulation of its major components, i.e., goals, needs, methodologies, surveying techniques, administration, financing, and site analysis.

MURP 6720 Practicum in Urban and Regional Planning 3cr.
The course will focus on the applied aspects of the urban and regional planning profession. Project(s) will be identified and students will work as a team to complete the work. The goal is to develop a professional group report.

MURP 6900 Independent Study 3cr.
Offered each semester. Independent research in the graduate student's area of specialization under the direction of a designated member of the graduate faculty. May be repeated for credit.

MURP 7000 Thesis Research 1-9cr.

Offered each semester. To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

MURP 7040 Examination or Thesis Only No credit 0cr.
Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

Public Administration

PADM 4300 The Dynamics of the Administration of Large Cities: A Case Study Approach 3cr.
Prerequisite: POLI 4210. This introductory course is to familiarize students with the basic components and dynamics of large municipal governments. Topics to be covered include: governmental structural forms, transitions between administrations, personnel selec-

tion, and budgeting, program development, master planning program implementation, city services, industrial development, and media considerations. These topics are offered so that students may understand how they are interrelated in a synergistic way as government operates.

PADM 4800 Studies in Special Urban Problems 3cr.
Prerequisite: consent of school. This course is a study of urbanization and population the city as a social and cultural environment and social problems of cities.

PADM 4810 Environmental Justice in Urban Environments 3cr.
Prerequisites: URBN 4030 or URBN 4140 or consent of college. This course examines the treatment of all groups in the US with respect to benefits and burdens from the development, implementation and enforcement of environmental laws, regulations and processes. Particular emphasis is given to the problems of the disproportionate siting of hazardous waste treatment, storage, disposal, and recycling facilities in poor and minority neighborhoods.

PADM 4900 Independent Study 3cr.
Prerequisite: consent of school. Independent research under the direction of a designated member of the faculty. May be repeated once. Maximum of six credit hours allowed. Not for graduate credit.

PADM 6010 The Profession of Public Administration 3cr.
This course is a graduate-level introduction to the study of public administration. Public administration involves the "core activities" of government that are usually performed by highly trained professionals in specialized organizations. The course employs lecture, readings, case studies, discussion, and practical exercises to provide an overview of the profession of public administration, including its historical development, values, and issues.

PADM 6020 Bureaucracy and Democracy 3cr.
Prerequisite: PADM 6010 The Profession of Public Administration. This course focuses on the relationship of the bureaucracy to its broader political environment and the many important questions related to the place of bureaucracy in a democratic society. It emphasizes the role of professional administrators in the policy process from the passage of laws to interpretation, rule making, implementation, accountability, and revision.

PADM 6110 Public Budgeting 3cr.
The course will provide an overview of public budgeting in the United States. The course will combine both theory and practice. The course format will be primarily lecture/discussion, but all students will participate online as well. In addition to weekly readings in the text, various budget exercises and Blackboard discussion board assignments, students enrolled for graduate credit will prepare one brief research paper and act as team leaders for budget simulation exercises.

PADM 6150 Administration of Urban Public Service Organizations 3cr.
Prerequisite: POLI 6110 or the equivalent. This course covers the administration of public service delivery organizations in a complex urban environment. Topics to be covered include use of budget information systems, monitoring of organizational performance, and problems of implementation. Case studies will be used extensively.

PADM 6160 Law and Ethics of Public Administration 3cr.
This course will examine the legal and ethical context of administrative practice in the United States, including the legal and ethical constraints on the exercise of administrative discretion in the public sector and the relationship between professional and personal values and its consequences for public management.

PADM 6180 Human Resources Administration in the Public Sector 3cr.
This is a course for administrators who want a broad understanding of the function of human resources management in program and policy implementation. This course provides an overview of human resources management in public organizations (government and nonprofit) and introduces students to elements of personnel policies and practices that can be applied in a broad range of organizational settings.

PADM 6201 Policy Analysis and Program Evaluation 3cr.
Prerequisite: URBN 6001 - Research Methods. An examination of techniques, procedures, and limitations of policy analysis and program evaluation. Topics covered include policy analysis, the planning and organizing of project evaluations, the writing of evaluation designs, evaluation methodologies, data collection and verification, analysis and interpretation of findings. The theme of the course is the necessity of accountability in public programs.

PADM 6300 Managing Change Public Organizations 3cr.
Prerequisite: consent of department. A seminar on the ways in which public organizations approach and resist change. The theme is how planning, budgeting, and evaluation are used by administrators to bring about change.

PADM 6401 Administrative Behavior 3cr.
A primary goal of public administrators should be assuring that the technical and ethical performance of public employees and the emerging service delivery are highly effective. This course is designed to help prepare public administrators accomplish this goal. It approaches public administration and management as a challenging enterprise that requires practitioners to demonstrate effective leadership, solve problems, motivate and monitor employee performance, resolve conflicts, and enhance interpersonal and organizational communication.

PADM 6410 Technology in Public Organizations 3cr.
This course is a graduate-level introduction to the use and impact of technological systems in public and nonprofit organizations. It is designed to provide administrators with an understanding of the basic practical and normative issues raised by innovations in information technology. The course covers the major concepts and theories explaining the role of computers and related technologies in public and nonprofit organizations.

PADM 6900 Independent Study 3cr.
Offered each semester. Independent research in the graduate student's area of specialization under the direction of a designated member of the graduate faculty. May be repeated for credit.

PADM 6901 MPA Capstone I 3cr.
Prerequisite: 24 hours of work toward the MPA degree including URBN 6001, Research Methods, and PADM 6201, Policy Analysis and Program Evaluation. Students who do not have significant public service experience should take this course in conjunction with their internship. This course is the first part of a two-semester sequence for students who are nearing the completion of their MPA degree and who choose a project instead of a thesis. The class is organized as a seminar in which students share their experiences and critique and help each other work on projects. In Capstone I each student will produce a research design for the capstone project, including a thorough review and analysis of relevant literature.

PADM 6902 MPA Capstone II 3cr.
Prerequisite: 24 hours of work toward the MPA degree including URBN 6001, Research Methods, PADM 6201, Policy Analysis and Program Evaluation, and PADM 6901, Capstone I. This course is the

second part of a two-semester sequence for students who are nearing the completion of their MPA degree and who choose a project instead of a thesis. The class is organized as a seminar in which students share their experiences and critique and help each other work on projects. Each student will complete and defend a project report before a committee of graduate faculty and at least one practitioner having substantial professional experience with the subject matter of the project.

PADM 7000 Thesis Research 1-9cr.
Offered each semester. To be repeated for credit until thesis is accepted. Section number will correspond with credit to be earned.

PADM 7040 Examination or Thesis Only No credit 0cr.
Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

Urban Studies - Doctorate

DURB 6803 Proseminar in Urban History: Social and Cultural Change 3cr.
(DURB 6803, DURB 6805, and HIST 6803 are cross-listed) Prerequisite: DURB/URBN 6850 or HIST 4543 or consent of instructor. Intensive reading in urban, social, and cultural change. Focus will be on American, European, and/or Third World urban development, from the founding of initial settlements to the present day. Discussions, conferences, short reports, and essays will be required. May be taken more than once for credit.

DURB 6805 Proseminar in Urban History: Social and Cultural Change 3cr.
DURB 6803, DURB 6805, and HIST 6803 are cross-listed) Prerequisite: DURB/URBN 6850 or HIST 4543 or consent of instructor. Intensive reading in urban, social, and cultural change. Focus will be on American, European, and/or Third World urban development, from the founding of initial settlements to the present day. Discussions, conferences, short reports, and essays will be required. May be taken more than once for credit.

DURB 6830 Urban Theory 3cr.
Prerequisite: MURP 6130, DURB 6850 or consent of instructor. The purpose of the course is to expose students to research dealing with urban development issues, including economic development, land use (in terms of physical space), and social impact. Students will also examine a variety of disciplinary perspectives and methodological approaches. These disciplines will include political science, geography, sociology, history, and economics.

DURB 6850 Seminar in Urban Studies 3cr.
This course is designed to introduce graduate students to the history and evolution of urban studies as a field of endeavor. The methodological approaches, research questions, and theoretical constructs employed in urban studies will be examined. The course content is selected to examine the scope, the depth and breadth, of urban studies. It is required of first semester students in the Ph.D. program in Urban Studies. The course is open to graduate students not in the Ph.D. program with permission of the College of Liberal Arts through the School of Urban Planning and Regional Studies and the instructor.

DURB 6900 Independent Study 3cr.
Offered each semester. Independent research in the graduate student's area of specialization under the direction of a designated member of the graduate faculty. May be repeated for credit.

DURB 7020 Research Design Seminar 3cr.
Prerequisite: DURB 6850 or consent of department. The purpose of this course is to guide students with the cooperation of their dissertation advisers, through the development of their dissertation prospectus. The course will focus on the interrelationships between epistemology, theory, particular methods, an research design. Upon completion, students will be expected to have finished their dissertation prospectus and to have scheduled their thesis defense.

DURB 7030 Research Design Practicum 3cr.
Prerequisite: DURB 7020 or consent of instructor. An opportunity to improve and test the ability to employ the craft of research by carrying through a semester-long research project that will be subject to external academic review. Its purpose is to build skills in the craft of research related to those questions, refining a theoretical framework or model, preparing a research plan for gathering and analyzing relevant data, formulating data collection instruments, gathering data for pre-test of those instruments, analyzing actual or simulated data to test proposed data analysis procedures, and preparing a journal article to report research findings.

DURB 7040 Examination or Thesis Only No credit 0cr.
Open to students in a thesis program who have only (other than application for degree) the final typing and acceptance by the Graduate School of their thesis or dissertation or to students in a non-thesis program who have only (other than application for degree) to pass the final examination to complete graduation requirements.

DURB 7050 Dissertation Research 1-9cr.
Preparation of dissertation by Ph.D. candidates under direction of major professor and dissertation committee. Section number will correspond with credit to be earned. To be repeated for credit until dissertation is accepted.

Women's Studies

WS 2010 Introduction to Women's Studies 3cr.
An introduction to the social, historical, and cultural dimensions of women's role in society.

WS 2090 Topics in Women's Studies 3cr.
An open topics approach to the role of women. May be repeated once for credit.

WS 3090 Internship in Women's Studies 3cr.
Prerequisite: WS 2010 or consent of the Women's Studies internship supervisor. The intern is placed in a private or public agency in order to gain practical experience in the application of women's studies perspectives and methodologies. Interns usually work eight hours a week at times mutually agreeable to the individual and the agency. In addition, students must meet regularly with a faculty advisor and their work must be evaluated by both an agency supervisor and the faculty advisor.

WS 3091 Independent Reading and Research in Women's Studies 1cr.
Prerequisite: One course from the Women's Studies approved list and consent of the Director of Women's Studies. The individual student will be responsible for selection of the area of reading and research. Readings, conferences, and reports or a major research project will be assigned by a member of the Women's Studies faculty. In no case may a student register for

WS 3091-93 for a total of more than six hours.

WS 3092 Independent Reading and Research in Women's Studies 1cr.
Prerequisite: One course from the Women's Studies approved list and consent of the Director of Women's Studies. The individual stu-

dent will be responsible for selection of the area of reading and research. Readings, conferences, and reports or a major research project will be assigned by a member of the Women's Studies faculty. In no case may a student register for WS 3091-93 for a total of more than six hours.

WS 3093 Independent Reading and Research in Women's Studies 1cr.
Prerequisite: One course from the Women's Studies approved list and consent of the Director of Women's Studies. The individual student will be responsible for selection of the area of reading and research. Readings, conferences, and reports or a major research project will be assigned by a member of the Women's Studies faculty. In no case may a student register for WS 3091-93 for a total of more than six hours.

WS 3095 Service Learning in Womens Studies 3cr.
Prerequisite: WS 2010 or consent of the instructor. This service learning course combines classroom and community learning. All students will participate in projects at one designated community agency while using weekly class meetings to assess the connection between feminist theory and practice.

WS 4070 Special Topics in Women, Literature, and Society 3cr.
(WS 4070, ENGL 4070 and SOC 4070 are cross-listed) Prerequisite: ENGL 2378 or SOC 1051 or WS 2010 or consent of instructors. A team-taught, interdisciplinary study of women in literature and society. Variable topics include women and crime, women and work, women and the family, women and religion.

WS 4078 Research Methods in Feminist Scholarship 3cr.
Prerequisite: WS 2010 or consent of instructor. An introduction to diverse quantitative and qualitative research methods used in contemporary feminist scholarship. Students will pursue individual projects based on archival collections, published articles, and other primary and secondary sources. The course will familiarize students with local archives and exhibits. Oral reports on research projects will satisfy the university's oral proficiency requirement.

WS 4080 Feminist Theory 3cr.
Prerequisite: WS 2010 or consent of the instructor. This course interweaves social science and the humanities to examine an array of theoretical perspectives on gender relations and inequalities. We will discuss some of the major issues that have fostered movements for the women's rights, highlighting the relationship between theory and practice. Particular emphasis will be given to the diversity of women's voices and experiences cross-culturally, and to the intersections of gender, race/ethnicity, social class, and sexual orientation.

WS 4090 Variable Topics in Women's Studies 3cr.
Prerequisite: Junior standing or consent of the instructor. Advanced study of women and gender. Topics vary from semester to semester. May be repeated once for credit, for a total of six credits.

Glossary

The following are definitions of terms that may be used throughout the University of New Orleans Undergraduate/Graduate Catalog.

Academic Calendar The official listing of important dates relative to semester/term start and end dates, deadlines and holidays.

Academic Load The total number of semester hours for which a student is registered in one semester or summer term. See "Course Load."

Academic Record A history of all of the courses, credit by examinations, and other equivalent activities a student has taken and the grades he/she has received. See also "Transcript."

Academic Year The period comprised of fall and spring semesters.

Advanced Placement Approved admittance into a course beyond entry level as a result of demonstrated subject proficiency.

Advanced Standing Academic credit for one or more courses awarded to a student based upon their successful performance on an examination.

Advisor A member of the University faculty or staff charged with the responsibility of interpreting academic requirements, developing course schedules, providing academic and career information, monitoring adjustment to college and academic progress and making referrals to other departments and support services based on the student's needs.

Approved Elective Elective that is not open to the free choice of the student.

Area of Concentration The primary areas of study.

Articulation Agreement Document that identifies courses that may be taken at one institution for degree completion at another institution.

Audit To enroll in a course for no credit.

Auditor A student who is officially enrolled in one or more courses for no credits.

Blackboard A Web-based learning, discussion, and class administration tool designed to provide a secure pre-made Web site for a class.

Bulletin A publication coordinated by the Office of the Registrar and the academic colleges that includes a list of courses and sections for a specific semester/term, information about registration, fee payment, student financial aid, the final examination schedule, and the academic calendar.

Colleges The academic units of the University that offer academic degree programs; administered by deans and staffed by faculty members. The type of training and the degree anticipated determine the student's choice of college.

Concentration An alternative track of courses within a major, accounting for at least 30 percent of the major requirements.

Core Requirements See "General Education Requirements."

Co-requisite A concurrent requirement; usually a course or some other condition that must be taken at the same time as another course.

Course Load The number of semester hours a student schedules in a given term.

Credit

1. The recognition awarded for the successful completion of course work. Credits are based on the number of times (hours) a course meets in one week during a regular semester.
2. The quantitative measure of recognition given to a course, stated in semester hours.

Cross-Enrollment Through separate formal agreements between UNO and Southern University in New Orleans and Delgado and Elaine O. Nunez Community Colleges, UNO students may register for a limited number of classes at each of these institutions when they register at UNO. Students should contact the office of their dean or the Registrar for information regarding the procedures to be followed for this process.

Cross-Listed The same course offered under the rubrics of two or more departments.

Cumulative or Overall Average A student's grade-point average, based on the total number of quality points earned and the total number of semester hours attempted. See "Grade Point Average."

Curriculum A description of the required and elective courses for a degree program.

Curriculum Sheet A check sheet used by students and advisors to track the student's progress toward completion of a degree program.

Degree The title of the award conferred on students by a college, university, or professional school upon completion of a unified program of study (i.e., Bachelor of Arts—B.A.; Bachelor of Science—B.S.; Master of Science—M.S.; Master of Fine Arts—M.F.A.; Master of Music—M.M; Doctor of Philosophy—Ph.D., etc.).

Degree Designation A degree designation for each authorized program at a public institution of higher education in Louisiana is listed in the Board of Regents' Inventory. Some programs require the name of the subject area as part of the degree designation (i.e., Bachelor of General Studies—B.G.S.; Master of Fine Arts—M.F.A., etc.).

Degree Program A grouping of campus-approved courses and requirements (i.e., minimum gpa, comprehensive examinations, English and mathematics proficiency, etc.) that, when satisfactorily completed, will entitle the student to a degree from an institution of higher education.

Departments The academic units of the University within colleges; administered by chairs or directors.

Distance Learning Learning that takes place with the instructor and student separated from each other geographically or in terms of time. For example, an instructor may record a video tape or make a streaming media file with learning objectives and planned activities months or weeks before a student accesses the tape or file to learn from it. Distance learning may occur by surface mail, video, interactive or cable TV, satellite broadcast, or any number of Internet technologies such as message boards, chat rooms, and desktop video or computer conferencing.

Elective Course chosen by the student, as opposed to required course. The term elective, without a qualifier, will be understood to be a free elective, chosen by the student at his or her option from all the courses offered by the University for degree credit, with due regard for prerequisites.

Equivalent When used in a course prerequisite (e.g., Prereq: SOC 1051 or equivalent), this term means either credit in a comparable course or adequate preparation by other experience. Determination of equivalency is left to the discretion of individual departments.

Freshman A student with less than 30 hours earned.

General Degree Requirements Courses and other requirements which must be met by all candidates for any bachelor's degree.

Good Standing Students are in good standing if they are eligible to continue or to re-enroll at the University, even if on scholastic probation or on academic warning status.

Grade-Point Average (GPA) A measure of scholastic performance; the ratio of quality points earned to semester hours attempted.

Independent Study A method of instruction in which studies by individual students are carried on outside the classroom on a topic contracted with an instructor.

Junior A student with at least 60 hours of credit earned and less than 90 hours of credit earned.

Lower Level Undergraduate courses offered at the freshman and sophomore levels designated by a course number beginning with a 1 or 2.

Major The part of a degree program consisting of a specified group of courses in a particular discipline or field. The name of the major is usually consistent with the degree subject area. A major usually consists of 25 percent or more of the total hours required in an undergraduate curriculum.

Matriculation The state of being registered for coursework and working toward a specific degree.

Minor A student's field of secondary or tertiary academic emphasis. That part of a degree program consisting of a specified group of courses in a particular discipline or field. The minor usually consists of 15 percent or more of the total hours required in an undergraduate curriculum. A minor is an elected emphasis and not required in most programs of study.

Non-degree seeking see "Nonmatriculated."

Nonmatriculated The state of being registered for courses but not working toward a specific degree. Both graduate and undergraduate students may register as nonmatriculated.

Placement Test A test given before a student enrolls in a course (that is one of a sequence of courses) to determine the level at which the student begins.

Plan see "Major."

Pre-professional Program A non-degree program of study in preparation for entry into a professional degree program at another institution or another division of the University; normally takes from one to three years to complete.

Prerequisite The preliminary requirement, usually credit in another course or class level that must be met before a course can be taken.

Probation (academic or disciplinary) A status assigned because of unsatisfactory grades or conduct.

Proficiency Examination A test equivalent to a final examination in a college-level course in which a student is required to demonstrate competence to earn academic credit. The test may be given as a final in a course in which a student is enrolled, as a test to validate transfer credit earned at another institution, or as a method for earning credit for a course in which a student is not formally enrolled.

Program The college or unit in which a major (plan) is housed.

Quality Point Numerical value assigned to each letter grade from "A" to "F," when given as the final grade in a course; provides a basis for quantitative determination of a grade-point average. Quality-point values at UNO are as follows: "A" = 4; "B" = 3; "C" = 2; "D" = 1; and "F," "XF" and "XU" = 0.

Registration The process by which a duly admitted student, upon payment of required fees, is enrolled in classes.

Resignation The official process by which a student withdraws (drops) from all courses during a university semester or term.

Section Specific designation (beyond the course number) of

each course offering that distinguishes room location, meeting time, and instructor.

Semester Hour The unit by which course work is measured. The number of semester hours assigned to a course is usually determined by the number of hours the class meets per week.

Seminar A method of instruction in which a group of students engaged in research or advanced study meets under the guidance of one or more University faculty members for presentation and discussion of approved topics.

Senior A student with at least 90 semester hours of credit earned.

Sophomore A student with at least 30 semester hours of credit earned and no more than 59 hours of credit.

Statute of Limitations A time limit placed on completing a specific degree or process.

Student Number A student's UNO number is his/her permanent identification and is unique to that person.

Student Schedule The courses in which a student is enrolled.

Suspension (academic or disciplinary) A university assigned status that prohibits students from registering for courses for a specified time period. See also "Probation."

Term Activate A computer process indicating a student is eligible to enroll for a specific semester or term.

Transcript The continuous, formal, and official record of a student's academic work at a university.

Transfer Student A student who terminates enrollment in one college or university and subsequently enrolls in this University.

Upper Level Undergraduate courses offered at the junior and senior levels designated by a course number beginning with a 3 or a 4.

Withdrawal See "Resignation."