UNIVERSITY OF LOUISIANA SYSTEM

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April 18, 2019

Dr. John Nicklow, President
University of New Orleans
2000 Lakeshore Drive
New Orleans, LA 70148

Dear Dr. Nicklow:

On April 9, 2019, the Board of Supervisors for the University of Louisiana System approved the following requests from University of New Orleans:

1. Request to approve six new Undergraduate Certificates: (1) Communications and Network Engineering; (2) Corporate and Nonprofit Communication; (3) Data Analytics; (4) Data Engineering; (5) Power and Energy Systems; and (6) Software Engineering.
2. Request to approve a Cooperative Endeavor Agreement with InnoGenomics Technologies.
3. Request to approve Campus Housing and Meal Plan Rates, Auxiliary Rates, Energy Surcharge, HB 152, and Non-Governmental Charges for Academic Year 2019-20.

Enclosed for your records are the Executive Summaries with the resolutions that were approved by the Board along with the approved personnel actions. If you have any questions, please do not hesitate to contact me.

Sincerely,

Jeannine Kahn, Ph.D.
Provost and Vice President for Academic Affairs

BOARD OF SUPERVISORS FOR THE UNIVERSITY OF LOUISIANA SYSTEM

ACADEMIC AND STUDENT AFFAIRS COMMITTEE

April 9, 2019

Item E.7. **University of New Orleans'** request for approval to offer six new Undergraduate Certificates.

EXECUTIVE SUMMARY

At the February 2019 meeting of the Louisiana Board of Regents (BoR) the need for a university-level undergraduate certificate (UC) that would include a blend of foundation courses and a number of upper-level courses to add depth in a particular focus area was recognized. While the two-year system offers incremental credentials with multiple exit points, students who begin at a university have no options for interim credentials other than completing the full 120-credit bachelor's degree, making it difficult for a university to respond to more immediate needs of students, working adults, and area industry. The demand for focused, incremental university education has been brought to the forefront as universities have coordinated with LA Economic Development and companies such as CenturyLink, DXC, and IBM to provide a pipeline of students with industry-aligned skills regardless of major. Based on this reasoning, the BoR established the UC as an approved academic offering option, to be composed of at least 18 credit hours with at least half of the required hours at the upper level.

In response to workforce needs of the greater New Orleans and surrounding areas, the University of New Orleans (UNO) would like approval to offer the following: UC in Communications and Network Engineering, UC in Corporate and Nonprofit Communication, UC in Data Analytics, UC in Data Engineering, UC in Power and Energy Systems, and a UC in Software Engineering. Information about each proposed UC is noted below.

UC in Communications and Network Engineering

The purpose of the proposed UC is to teach students about communications, and also data and computer networks. Courses required of the proposed 18 credit hour UC include: Engineering Software Tools, Continuous and Discrete Signals and Systems, Communications System Design, Data and Computer Communications, Modern Wireless Communications, and Special Topics in Electronical Engineering (which leads to CCNA certification). Courses required of the proposed UC are already offered by the Department of Electrical Engineering. Program implementation will be minimal with UNO anticipating only a small additional instructional cost in YRS 3 and 4.

It is expected that the proposed UC will touch on different types of jobs such as Network and Computer Systems Administrator and Communications Engineer, among others. Jobs of this nature are estimated to grow by 6% nationwide and by 28% in Louisiana from 2016 to 2026 per CareerOneStop.org, which is sponsored by the U.S. Department of Labor. Louisiana is among the

first three states in the U.S. in terms of job percent growth in this field. A UC like the one proposed by UNO will help to provide a talent pipeline for positions in this specific area.

UC in Corporate and Nonprofit Communication

The proposed 18 credit hour UC will utilize existing courses offered by the Department of English and Foreign Languages, the Department of Management and Marketing, and the Department of Film and Theatre. Courses required of the proposed UC will teach students forms and techniques of writing and editing and the interpersonal communication skills valued in a variety of professions. Students will learn and practice the editing, reporting, copyediting, and proofreading conventions that are necessary to any professional skillset. And, they will also learn the document design conventions used in many journalistic, corporate, nonprofit, academic, and commercial fields, as well as the oral and interpersonal communication skills required of workforce-ready communications in their respective professions.

Students who complete the proposed curriculum will be credentialed as well prepared professional communicators and will be able to market themselves as such when they enter the labor market. There is local and regional demand for employees who possess excellent communication skills be it nonprofits or the industry sectors of digital media, advanced manufacturing, energy, international trade, biosciences or environmental management. Since UNO is utilizing existing courses and faculty, the proposed UC can be offered at minimal cost; one adjunct instructor with expertise in advanced technical writing and editing is anticipated in YR2 of implementation.

UC in Data Analytics

The curriculum required of the proposed UC has been designed to provide students with the tools to meet the increased demand for professionals who can interpret, explain, and present large quantities of data for decision-making. Courses required of the proposed 18 credit hour UC include: Elementary Statistical Methods, Analysis of Variance and Experimental Design, Introduction to Regression Analysis, Data Analysis, and Statistical Learning. For the final course students will be able to select among three options based on their specific interest and need (Introduction to Mathematical Statistics, Financial Math I or Introduction to Optimization). Each option corresponds to an area of anticipated workforce demand in the metropolitan New Orleans area. Courses required of the proposed UC are already offered by UNO; only a small marketing budget of $5K for YR1 is anticipated.

Increased access to data means that organizations have a greater need to turn data into valuable information for decision-making. According to the Bureau of Labor Statistics Occupational Outlook Handbook, employment of research analysts is projected to grow 27% from 2016 to 2026. The May 2017 Occupational Employment Statistics study found 450 positions in the State of Louisiana for data analysts, of which 310 were in the greater New Orleans area which is the region served by UNO. Due to the interdisciplinary nature of the field and the emphasis on applied options, the proposed UC could be easily adapted to serve the needs in the five sectors identified by GNO, Inc., as key industries: Digital Media, Health Sciences, Advanced Manufacturing, Water Management Industry, and Energy Industry.

UC in Data Engineering

The data science field is incredibly broad, encompassing everything from cleaning data to deploying predictive models. The proposed UC will provide knowledge and skills about communications, data and computer networks, and cloud services and architecture design. Course requirements of the proposed UC include: Engineering Software Tools, Electrical Engineering Software Tools, Introduction to Mathematical Statistics, Data Models and Database Systems, Special Topics in Electrical Engineering (Data Engineering), and Introduction to Deep Neural Networks. Five of the six courses required of the proposed UC are already offered by the Department of Electrical Engineering (EE). The EE Department offers a graduate course in Neural Networks, which can easily be revamped into an undergraduate course.

According to a recent Forbes article, machine learning engineers, data scientists, and big data engineers have been among the fastest growing jobs. More specifically, machine learning engineering jobs increased 9.8 times between 2012 and 2017. The proposed UC concentrates specifically on these popular fields including deep neural networks (which will also include concepts from machine learning, in addition to the general data engineering course). It is expected that individuals who complete the proposed UC will be qualified to pursue these fast growing jobs.

UC in Power and Energy Systems

The University has organized six existing courses and one lab into a 19 credit hour proposed UC that will teach students how to perform analysis, modeling, design, and planning of electric power systems, as well as the principles of electromechanical energy conservation and their application to electric machines. The proposed UC curriculum includes the following: Circuits I & II, Electric Machinery, Energy Conversion Lab, Electrical Power Systems, Power Systems Planning and Design, and Protective Relaying of Power Systems. Since the University is taking advantage of existing courses and faculty, only a small amount of additional instructional cost may be required in the case that enrollment in the required courses exceeds capacity.

The U.S. Bureau of Labor Statistics indicates that Electrical Engineering (EE) jobs will grow by 9% nationwide and by 18% in Louisiana from 2016 to 2026. When drilling down further, in 2016, the electrical power generation, transmission and distribution industry accounted for a significant portion (9.7%) of the EE employment nationwide. The expectation is that percentage will continue to increase through 2026. Graduates of the Power and Energy Systems UC will have the new skills which will provide them with the opportunity to find employment in this type of industry.

UC in Software Engineering

The purpose of the proposed UC is to teach students how to apply the principles of software engineering to the design, development, maintenance, testing, and maintenance of software systems. To complete the proposed UC a student will need to have fulfilled prerequisite requirements, complete five specific required courses, and two courses that the student will choose from a pool of four 3-credit hour courses. The proposed UC encompasses 19 credit hours with core coursework as follows: Software Design and Development I & II, Software Design and Development Laboratory I&II, Data Structures, Data Models and Database Systems, and Introduction to Software Engineering. Additional costs for program implementation would be

minimal since all of the courses are already offered by the Department of Computer Science at UNO.

Given the very healthy projected employment in software engineering and related jobs, UNO is proactively finding ways to reach more students and deepen their skills in this field. The proposed UC is the culmination for a need to meet the workforce demand for software engineers in the greater New Orleans region. Unfortunately, the number of computer science graduates alone have not been able to meet the regional employer demand for software engineers. Creating this UC is a way to directly tap into UNO's broad pool of talented students in other disciplines and arming them with the skill set necessary to meet industry needs.

RECOMMENDATION

It is recommended that the following resolution be adopted:

NOW, THEREFORE, BE IT RESOLVED, *that the Board of Supervisors for the University of Louisiana System hereby approves the University of New Orleans' request for approval of six Undergraduate Certificates.*

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THE UNIVERSITY of
NEW ORLEANS
OFFICE OF THE PRESIDENT

March 19, 2019

Dr. Jim Henderson
President
The University of Louisiana System
1201 North Third Street
Baton Rouge, LA 70802

Dear Dr. Henderson,

The University of New Orleans requests approval for the attached Letter of Intent for an Undergraduate Certificate in Communications and Network Engineering. The purpose of this certificate program is designed to teach students about communications, and also data and computer networks.

Thank you for your consideration of this request. Please do not hesitate to contact me should you have any questions.

Sincerely,

John W. Nicklow
President

2000 Administration Annex | 2000 Lakeshore Drive | New Orleans, Louisiana 70148
phone 504.280.6201 | *fax* 504.280.6872

PROPOSAL to DEVELOP a NEW ACADEMIC CERTIFICATE PROGRAM
(CAS, PAC, UC, PBC, GC, PMC, PPC)

Date: 3/18/19

Campus: The University of New Orleans	Program: CIP, Certificate Designation, Title 140999, Undergraduate Certificate in Communications and Network Engineering

Institutional Contact Person & Contact Info (if clarification is needed)

Dr. Tina Chang, AVP of Professional and Continuing Education
The University of New Orleans
2000 Lakeshore Drive
New Orleans, LA 70148
504-280-1024
tchang@uno.edu

Dr. Taskin Kocak, Dean, College of Engineering
tkocak@uno.edu

Dr. Dimitrios Charalampidis, Department Chair, Electrical Engineering
dcharala@uno.edu

1. Certificate Description

Describe the program concept: purpose and objectives; proposed curriculum; mode of delivery (on-site/hybrid/on-line). Indicate which courses are new; describe plan for rolling out new courses.

** Attach catalog descriptions for the required and elective courses, including prerequisites and LCCN, when applicable. **

The University of New Orleans proposes to introduce an undergraduate certificate in Communications and Network Engineering. The proposed curriculum is based on five existing departmental courses and two new courses, and has been designed to teach students about communications, and also data and computer networks.

The certificate will require 6 existing courses ENEE 1530, 3530, 3535, 4575, 4595 and ENEE 4097. ENEE 1530 provides a foundation in computer programming and other software, which are needed for programming in computer networks, but also for system simulation and modeling. ENEE 3530 and 3535 provide the foundation on basic signals, systems, and telecommunications, while ENEE 4595 teaches modern wireless communications. Then, ENEE 4575 teaches computer communications and computer networks, and the new course, ENEE 4098, will culminate the topic of networks with some advanced topics and also CCNA certification.

Requirement	Hours
ENEE 1530: Engineering Software Tools	3
ENEE 3530: Continuous and Discrete Signals and Systems	3
ENEE 3535: Communications System Design	3
ENEE 4575: Data and Computer Communications	3
ENEE 4595: Modern Wireless Communications	3
ENEE 4097: Special Topics in Electrical Engineering (Advanced Networks (CCNA certification)	3

Students with limited background in mathematics may be required to complete some additional prerequisites such as MATH 2114 (4 credits), MATH 2124 (4 credits), MATH 2221 (3 credits), MATH 3511 (3 credits).

Catalog Descriptions:
Required

ENEE-1530 Engineering Software Tools

Pre-requisites: Math 1125 or higher. The course teaches the use of contemporary software tools for computer aided analysis, simulation, and design, and their application in different areas of Engineering.

ENEE 3530 Continuous and Discrete Signal and System Analysis
Prerequisite: Credit in ENEE 2551 with C or better, MATH 3511 and MATH 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 3535 Communication System Design
Prerequisites: ENEE 3530 with C or better. Design, characterization, and selection of communication methods and systems.

ENEE 4575 Data & Computer Communications
Prerequisites for ENEE 4575: CSCI 1201 and MATH 2108 or 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 4595 Modern Wireless Communications
Prerequisite for ENEE 4595: ENEE 3530 with C or better. Technical concepts relating to the design and implementation of modern wireless communication systems with emphasis on mobile, cellular and LTE.

ENEE 4097 Special Topics in Electrical Engineering
Prerequisite: Consent of department. Special lectures on subjects of current interest in the various fields of electrical 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.

2. Need

Outline how this program is deemed essential for the wellbeing of the state, region, or academy (e.g., how is it relevant, how does it contribute to economic development or relate to current/evolving needs). Identify similar programs in the state and explain why the proposed certificate is needed.

It is expected that this certificate will touch on different types of jobs such as Network and Computer Systems Administrator, Communications Engineer, among others. For example, according to https://www.careeronestop.org/, which is sponsored by the US Department of Labor) and in particular according to the following more specific web site: https://www.careeronestop.org/Toolkit/StateAndLocal/ProjectedEmployment.aspx?soccode=151143&location=louisiana, Network and Computer Systems Administrator jobs are estimated to grow by 6% nationwide and by 28% in Louisiana from 2016 to 2026.

	Employment 2016	Employment 2026	Percent Change	Projected Annual Job Openings*
United States	391,300	415,300	6%	27,000
Louisiana	2,950	3,770	28%	290

*Projected Annual Job Openings refers to the average annual job openings due to growth and net replacement.

Louisiana is among the first three states in US in terms of job percent growth in this field. The median network and computer system administrator salary was $81,100 in 2017. This position opens a myriad of career advancement opportunities including management and leadership responsibilities with titles such as Director or Vice President of Information Technology and Chief Information Officer.

Quick Facts: Network and Computer Systems Administrators	
2017 Median Pay	$81,100 per year $38.99 per hour
Typical Entry-Level Education	Bachelor's degree
Work Experience in a Related Occupation	None
On-the-job Training	None
Number of Jobs, 2016	391,300
Job Outlook, 2016-26	6% (As fast as average)
Employment Change, 2016-26	24,000

We are not currently aware of another similar undergraduate certificate offered in the state of Louisiana. Although computer network certification is available in various forms, the proposed certificate teaches students material at a higher academic (university) level. The certificate will not only be available to students who are currently pursuing an undergraduate Electrical Engineering or Computer Engineering degree, but to graduates with a different background. In particular, the undergraduate nature of the certificate facilitates its availability to larger groups of potential students.

3. Students

Describe student interest. Project enrollment and productivity for the first 5 years; justify projections.

Our department is currently in the process of expanding from Electrical Engineering to Electrical and Computer Engineering. Currently, we only offer a concentration in Computer Engineering. Students pursuing this concentration account for about 15% of the total enrollment in the program (which is about 200 students). Introduction of this certificate will facilitate our efforts to expand our capabilities in the Computer Engineering field. Successful accomplishment of this goal could help us increase our enrollment by 25% in the first few years.

4. Accreditation

Describe plan for achieving program accreditation.

The College of Engineering, Electrical Engineering Department and its programs are fully accredited by ABET.

5. Faculty, Administration, & Other Resources

How will instructional needs be met: will additional faculty, facilities, equipment, or library resources be required? What department will deliver and oversee the proposed program?

The Department of Electrical Engineering will deliver the courses but there will be oversight of undergraduate certificates through the Division of Professional and Continuing Education.

6. Cost

Summarize additional costs to offer the program. On separate budget sheet, estimate costs and revenues for the projected program for the first five years, indicating need for additional appropriations (if any).

There will be no additional cost required. The revenue was computed based on SCH generated by each student, based on current fees and tuition.

CERTIFICATIONS:

Tina Chang

Primary Administrator for Proposed Certificate — 3/27/2019 — Date

Mahyar Amouzegar

Provost/Chief Academic Officer — 3/27/2019 — Date

Management Board/System Office — 04/25/19 — Date

SUMMARY OF ESTIMATED ADDITIONAL COSTS/INCOME FOR PROPOSED CERTIFICATE

Institution: UNO **Date:** 3/18/2019

Certificate Program, Unit: *Communications and Network Engineering*

FTE = Full Time Equivalent (use the institution's standard definition and provide that definition).

EXPENDITURES								
	FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
	AMOUNT	FTE	Amount	FTE	AMOUNT	FTE	AMOUNT	FTE
Faculty	$		$		$		$	
Graduate Assistants								
Support Personnel								
Fellowships and Scholarships								
SUB-TOTAL EXPENSES	$		$		$		$	

	AMOUNT	AMOUNT	AMOUNT	AMOUNT
Facilities	$	$	$	$
Equipment				
Travel				
Supplies				
SUB-TOTAL	$	$	$	$
GRAND TOTAL EXPENSES	$0	$0	$0	$0

REVENUES								
Amount & Percentage of Total Anticipated From:	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	%
State Appropriations	$		$		$		$	
Federal Grants/Contracts								
State Grants/Contracts								
Private Grants/Contracts								
Tuition	$9,469.55		18,939.10		28,408.65		37,848.20	
Fees	$3,770.45		7,540.9		11,131.35		15,080.8	
Other (specify)								
TOTAL	$13,240		$26,480		$39,540		$52,929	

*There are no additional cost in year one and two because we are leveraging existing courses.

THE UNIVERSITY of
NEW ORLEANS

OFFICE OF THE PRESIDENT

March 19, 2019

Dr. Jim Henderson
President
The University of Louisiana System
1201 North Third Street
Baton Rouge, LA 70802

Dear Dr. Henderson,

The University of New Orleans requests approval for the attached Letter of Intent for an Undergraduate Certificate in Corporate and Nonprofit Communication. This certificate program is designed to teach students forms and techniques of writing and editing and the interpersonal communication skills valued in a variety of professions.

Thank you for your consideration of this request. Please do not hesitate to contact me should you have any questions.

Sincerely,

John W. Nicklow
President

2000 Administration Annex | 2000 Lakeshore Drive | New Orleans, Louisiana 70148
phone 504.280.6201 | *fax* 504.280.6872

PROPOSAL to DEVELOP a NEW ACADEMIC CERTIFICATE PROGRAM
(CAS, PAC, UC, PBC, GC, PMC, PPC)

Date: 3/18/2019

Campus:	Program: CIP, Certificate Designation, Title
The University of New Orleans	23.0101, Undergraduate Certificate in Corporate and Nonprofit Communication

Institutional Contact Person & Contact Info (if clarification is needed)
Dr. Tina Chang, AVP of Professional and Continuing Education
The University of New Orleans
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tchang@uno.edu

Dr. Kim Martin Long, Dean, College of Liberal Arts, Education and Human Development
kmlong@uno.edu

Dr. Peter Schock, Chair, Department of English and Foreign Languages
pschock@uno.edu

Dr. Elaine Brooks, Chair, Department of English and Foreign Languages
esbrooks@uno.edu (beginning Fall 2019)

Reggie Poché, Associate Chair, Department of English and Foreign Languages
rjpoche3@uno.edu

1. Certificate Description

Describe the program concept: purpose and objectives; proposed curriculum; mode of delivery (on-site/hybrid/on-line). Indicate which courses are new; describe plan for rolling out new courses.

** Attach catalog descriptions for the required and elective courses, including prerequisites and LCCN, when applicable. **

The University of New Orleans proposes to introduce an undergraduate certificate in Corporate and Nonprofit Communications. The program will be delivered on-site. The proposed curriculum, which is based on existing courses offered by the Department of English and Foreign Languages, the Department of Management and Marketing, and the Department of Film and Theatre, will teach students forms and techniques of writing and editing and the interpersonal communication skills valued in a variety of professions. They will learn and practice the editing, reporting, copyediting, and proofreading conventions that are necessary to any professional skillset. They will also learn the document design conventions used in many journalistic, corporate, nonprofit, academic, and commercial fields, as well as the oral and interpersonal communication skills required of workforce-ready communicators in their respective professions. Upon completing the certificate, students will be credentialed as well-prepared professional communicators and can market themselves as such when they enter the labor market.

The following 18-hour curriculum will be flexible enough to allow students in a variety of majors to customize the certificate to their needs. Some of the courses in the proposed certificate curriculum are already required in certain undergraduate majors. For example, undergraduates majoring in Business Administration are required to take MANG 2790 (Business Communication). Business Administration students may use this course as a foundation for obtaining the certificate by subsequently choosing electives, such as ENGL 2155 (Introduction to Professional Writing) from the following certificate program

menu. Other students whose departments do not currently require any of the coursework in this menu may still complete a certificate in Corporate and Nonprofit Communications by strategically choosing 18 hours of elective coursework allowed in their degree programs.

Required Courses	Hours
ENGL 2155-Introduction to Professional Writing	3
ENGL 2152-Technical Writing **or** MANG 2790-Business Communication	3
FTA 2650-Oral Communication **or** MANG 2472-Business Communication Oral	3
ENGL 4155-Professional Editing and Writing	3
ENGL 4152-Technical Editing and Writing	3
ENGL 4190-Special Topics in Professional Writing **or** ENGL 4398-Internship in English	3

ENGL 2155 - Introduction to Professional Writing
LCCN: CENL 2513 Foundations of Pro. Writing (Lower Level)
An introduction to the basic forms and techniques of professional writing disciplines (such as technical writing, journalism, business writing, technical and professional editing) as well as basic rhetorical principles. Enrollment requirement: Credit for ENGL 1158/1159 (First-Year Writing) with C or better.

ENGL 2152 - Technical Writing
LCCN: CENL 2513 Foundations of Pro. Writing (Lower Level)
A course that introduces students to various forms of expository writing and professional communication with special emphasis on the preparation of reports or technical papers. Enrollment requirement: Credit for ENGL 1158/1159 (First-Year Writing) with C or better.

MANG 2790 - Business Communication
A course that introduces 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. Enrollment requirement: Must have credit for BA 2780 (Application Software for Business) and ENGL 1158.

FTA 2650 - Oral Communications
LCCN: CCOM 2013 Public Speaking
An introductory course in oral communications. Chief emphasis is on communication to a small group. Attention is given to public speaking, interpersonal communication, interviewing, and group discussion. No prerequisite.

MANG 2472 - Business Communication Oral
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.). Enrollment requirement: Sophomore standing

required.

ENGL 4155 - Professional Editing & Writing
A course that teaches students the basic forms and techniques of professional editing and writing as well as the various roles professional editors and writers serve throughout the production of print and digital publications. Students develop their skills as grammarians and prose stylists and learn copy marking, copy editing, and proofreading conventions used in a variety of genres, such as corporate, scholarly, literary, commercial, public relations, advertising, and nonprofit writing. Enrollment requirement: Credit for ENGL 1158/1159 (First-Year Writing) with C or better and more than 44 credit hours, at least 6 hours of literature courses from 2000-2999 is required.

ENGL 4152 - Technical Editing and Writing
A course that introduces students to the profession of technical editing and writing: the basics of editing, including levels of edit and digital editing; document design; and editing and writing in a variety of technical modes, such as memos, proposals, reports, instructions, charts, tables, and figures. Enrollment requirement: Credit for ENGL 1158/1159 (First-Year Writing) with C or better and more than 44 credit hours, at least 6 hours of literature courses from 2000-2999 is required.

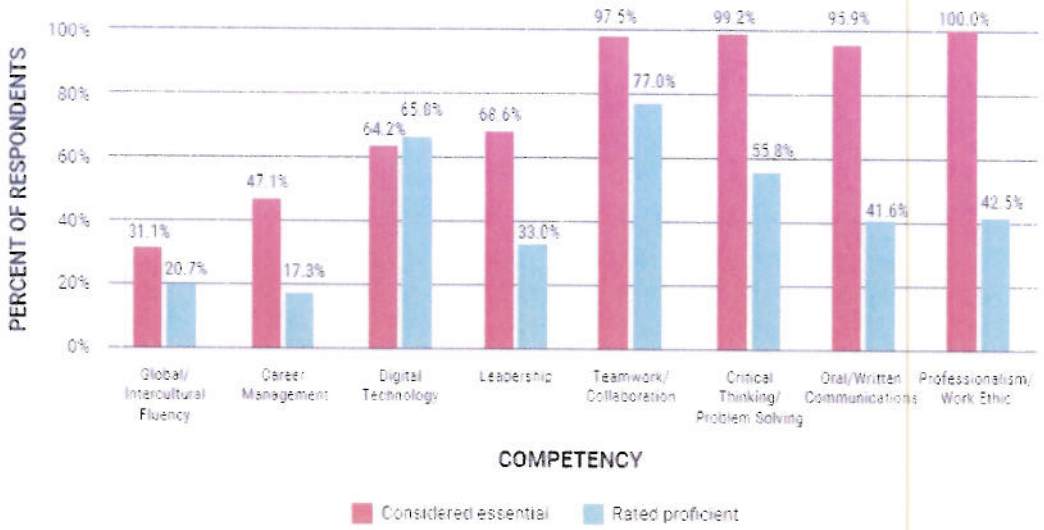
ENGL 4190 - Special Topics in Professional Writing
Advanced work in specific area of professional writing. Topics will vary each semester so that students may receive specialized instruction in a particular area of professional communication that fits their needs or interests. Possible topics include, but are not limited to, grant writing, corporate communications, public relations writing, advertising writing, and public policy communications. ENGL 4190 topics will be advertised a year in advance so that students may choose the topic that most closely aligns with their needs and interests. Students are encouraged, but not required, to take ENGL 2155, ENGL 2152, or JOUR 2700 before taking ENGL 4190. *This is a newly approved course scheduled to be offered in the spring of 2020.

ENGL 4398 - Internship in English
Prerequisite: consent of department. This is a course emphasizing writing skills in internships in local industrial, business, and government agencies. Students will gain practical experience as professional communicators under the guidance of an employer-mentor. Enrollment requirement: Departmental consent and credit for ENGL 1158/1159 (First-Year Writing).

2. Need

Outline how this program is deemed essential for the wellbeing of the state, region, or academy (e.g., how is it relevant, how does it contribute to economic development or relate to current/evolving needs). Identify similar programs in the state and explain why the proposed certificate is needed.

In its "Job Outlook 2018" survey, the National Association of Colleges and Employers (NACE) provides "a forecast of hiring intentions of employers as they relate to new college graduates." Eighty percent of NACE member-respondents ranked written communications skills as the most desirable attribute employers seek in applicants, followed by verbal communications skills at 67%. Of NACE's eight Career Readiness Competencies, "Oral/Written Communications" ranks among the most valued by employers, who also recognize skills gaps in this area among new hires. The Department of English and Foreign Languages would like to offer students the opportunity to bridge this gap. There is no similar program in the state that currently trains students in this regard.



*** The percentages corresponding to "considered essential" represent, among all responding employers, the percentage who, on a five-point scale, indicated that the respective competency was either "essential" (4) or "absolutely essential" (5) for college graduates to enter their workforce. The percentages corresponding to "rated proficient" represent, among all responding employers, the percentage who, on a five-point scale, rated recent graduates either "very" (4) or "extremely" (5) proficient in the respective competency.**

Source: The National Association of Colleges and Employers

The expertise offered by a student possessing a certificate in Corporate and Nonprofit Communication will be particularly useful to nonprofits in the Greater New Orleans region. It is well known, of course, that cultural organizations like the New Orleans Museum of Art, the New Orleans Philharmonic, the Audubon Institute, and various historical museums make use of grant writers, copywriters, and editors—professionals who have honed the skillset this certificate program will nurture. In addition to these organizations, there are literally hundreds of other nonprofit organizations in the Greater New Orleans area that not only provide an array of services to the community, but help with economic development. Roughly half of all these nonprofit organizations use grant writers. A profile distributed by the Urban Institute in November of 2012 reported that: (1) 73 percent of revenues *for community and economic development* organizations in the Greater New Orleans area come from government grants; that (2) Government grants account for nearly half (46 percent) of the revenue of *nonprofit health and human services providers* in the New Orleans metropolitan area; and that (3) *multipurpose, emergency assistance and homeless services, and physical and mental health organizations* all have government grants accounting for 50 percent or more of their total revenue. Of all these nonprofit organizations, *45 percent made use of a paid grant writer* (employee or contractor). Hence, since the technical writing and grant writing courses offered by the certificate program will help prepare grant writers, the certificate will potentially help Greater New Orleans to find funds for economic development and both community and social well-being.

Additionally, students credentialed with a certificate in Corporate and Nonprofit Communication will be well-positioned as professional communicators who are able to work effectively throughout the state's industrial centers. Our skilled graduates will pursue careers not only as technical writers, but as medical writers and grant writers, especially needed in a region where the economy concentrates activity in engineering, petroleum services, geomatics, medical research, and hospitality.

Our department's mission supports that of UNO, providing excellence in academic programs and serving the needs of our urban community. In recent years, we have sought to establish new strategic objectives that align with specific goals set forth in *UNO2020*, the current institutional strategic plan. In that document, Goal One commits the university to ensuring that we offer "high-quality academic programs which will prepare students for success in a globally competitive, multicultural, and changing environment."

This proposed certificate program will also allow the University to meet Outcome Nine, which calls for "*program growth (including interdisciplinary and cross-disciplinary programs) in areas that meet local workforce development needs, as well as those program areas that foster the intellectual and cultural development of the community and region (supporting the 'cultural economy').*"

Through this proposed certificate, current UNO students will have an opportunity to expand a skillset of writing, speaking, and communication tools that will be applicable to whatever career path they choose.

3. Students

Describe student interest. Project enrollment and productivity for the first 5 years; justify projections.

The Department of English and Foreign Languages currently offers its undergraduate majors a degree concentration in Professional Writing and Journalism. Student who take this concentration enroll in several of the courses described in this proposal, such as ENGL 2155 and 4152, which are part of the concentration's curriculum. Graduates with this concentration have gone on to work as professional communicators in a variety of fields. For example, recent graduates work as technical writers at local oil refineries, as medical journal editors at regional hospitals, and as editors and copyeditors at local publishing companies. An undergraduate certificate in Corporate and Nonprofit Communication will offer non-English majors an opportunity to develop a skillset similar to these English majors, which will enable them to pursue the same opportunities or enhance their marketability in various fields.

There is local and regional corporate demand for employees who possess excellent communications skills. These companies have reached out to the Department of English and Foreign Languages in the past for assistance in providing continuing education in business and technical writing to its employees. For example, Eurofins Central Analytical Laboratories, which offers analytical support and food safety consulting to a wide range of local, regional, and international clients, previously asked if the Department of English and Foreign Languages was in a position to host writing workshops for its employees so that they may be trained in the best practices of corporate and technical writing. At the time, we were not able to accommodate their request but have since enhanced our course offerings in professional and technical writing and have hired additional faculty with the requisite expertise in these fields.

The proposed certificate program will also be an attractive option for many non-English majors whose degree programs already require that they take at least one of the courses listed in the proposed certificate curriculum. ENGL 2152, for example, is a technical writing course required of every Engineering and Computer Science major at the University of New Orleans. In the last three semesters, 412 students have enrolled in this course. Under the proposed certificate curriculum, if these students also have credit for FTA 2650, which is a General Education humanities elective, they would have already completed one-third of the certificate program. Since FTA 2650 is a General Education elective that any student in any major can take toward satisfying his or her undergraduate degree requirements, it can serve as an entry point into the proposed certificate program for any student in any major.

Aggregate enrollments in the component certificate courses over the last three semesters (or in the most recent two semesters the courses were offered) are as follows. In a single academic year, we anticipate

that approximately 600 students will have taken at least one of the following courses as part of their degree program curricula. This will give them a convenient head start and an incentive to continue the coursework required of a certificate in corporate and nonprofit communication.

Course	Enrollment
ENGL 2152	412
ENGL 2155	32
ENGL 4152	16
ENGL 4155	12
ENGL 4190	Newly approved course – scheduled for Spring 2020
FTA 2650	219
MANG 2472	55
MANG 2490	388

The Department of English and Foreign Languages projects that at least 15 students, six of whom are already concentrating in Professional Writing as English majors, will enroll in the proposed certificate program in the first year and that enrollment will grow as more students from other departments learn of the program. We anticipate an initial enrollment of 9 in the first two years with an increase to 12 and 14 in years 3 to 4 respectively.

4. Accreditation

Describe plan for achieving program accreditation.

The Department of English and Foreign Languages is accredited by the Southern Association of Colleges and Schools (SACS).

5. Faculty, Administration, & Other Resources

How will instructional needs be met: will additional faculty, facilities, equipment, or library resources be required? What department will deliver and oversee the proposed program?

The proposed certificate program will be delivered by the Department of English and Foreign Languages and overseen by Dr. Rhiannon Goad, Visiting Assistant Professor of Professional Writing. The Department of English and Foreign Languages recently hired Dr. Goad, who brings much-needed expertise in corporate, nonprofit, governmental, and public policy communication and rhetoric.

In the first year, all instructional needs will be met by existing departmental resources. Should the enrollment grow quickly in the program's second year, the Department of English and Foreign Languages may need to hire one adjunct instructor with experience in teaching advanced technical and professional writing. This adjunct hire would offset faculty attrition due to the upcoming retirement of the Department's expert in technical writing and technical editing.

6. Cost

Summarize additional costs to offer the program. On separate budget sheet, estimate costs and revenues for the projected program for the first five years, indicating need for additional appropriations (if any).

Because we anticipate that courses will be taught by full-time faculty members on load, the proposed certificate program can be implemented in the first year at no additional cost. Should the program's enrollment grow in the second year and beyond, the Department of English and Foreign Languages anticipates needing one adjunct instructor with expertise in advanced technical writing and editing to teach 4000-level courses. The revenue was computed based on SCH generated by each student, based on current fees and tuition.

CERTIFICATIONS:

Tina Chang	3/27/2019
Primary Administrator for Proposed Certificate	Date
Mahyar Amouzegar	3/27/2019
Provost/Chief Academic Officer	Date
	04/25/19
Management Board/System Office	Date

SUMMARY OF ESTIMATED ADDITIONAL COSTS/INCOME FOR PROPOSED CERTIFICATE

Institution: The University of New Orleans **Date: 03/28/2019**

Certificate Program, Unit: Undergraduate Certificate in Corporate and Nonprofit Communication, Department of English and Foreign Languages

FTE = Full Time Equivalent (use the institution's standard definition and provide that definition).

EXPENDITURES								
	FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
	AMOUNT	FTE	Amount	FTE	AMOUNT	FTE	AMOUNT	FTE
Faculty (Adjunct)	$0		$4000	.125	$4000	.125	$4000	.125
Graduate Assistants	0		0		0		0	
Support Personnel	0		0		0		0	
Fellowships and Scholarships	0		0		0		0	
SUB-TOTAL EXPENSES	$0	.0	$4000	.125	$4000	.125	$4000	.125

	AMOUNT	AMOUNT	AMOUNT	AMOUNT
Facilities	$0	$0	$0	$0
Equipment	0	0	0	0
Travel	0	0	0	0
Supplies	0	0	0	0
SUB-TOTAL	$0	$0	$0	$0
GRAND TOTAL EXPENSES	$0	$4000	$4000	$4000

REVENUES								
Amount & Percentage of Total Anticipated From:	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	%
State Appropriations	$0		$0		$0		$0	
Federal Grants/Contracts	0		0		0		0	
State Grants/Contracts	0		0		0		0	
Private Grants/Contracts	0		0		0		0	
Tuition	$8,659	71.3	$8,659	71.3	$11,545	71.3	$12,469	71.3
Fees	$3,482.	28.7	$3,482.	28.7	$4,643	28.7	$5,416	28.7
Other (specify)	0		0		0		0	
TOTAL	$12,141		$12,141		$16,188		$17,885	

THE UNIVERSITY of
NEW ORLEANS
OFFICE OF THE PRESIDENT

March 19, 2019

Dr. Jim Henderson
President
The University of Louisiana System
1201 North Third Street
Baton Rouge, LA 70802

Dear Dr. Henderson,

The University of New Orleans requests approval for the attached Letter of Intent for an Undergraduate Certificate in Data Analytics. This certificate program is designed to provide students with the tools to meet the increased demand for professionals who can interpret, explain and present large quantities of data for decision-making.

Thank you for your consideration of this request. Please do not hesitate to contact me should you have any questions.

Sincerely,

John W. Nicklow
President

2000 Administration Annex | 2000 Lakeshore Drive | New Orleans, Louisiana 70148
phone 504.280.6201 | *fax* 504.280.6872

PROPOSAL to DEVELOP a NEW ACADEMIC CERTIFICATE PROGRAM
(CAS, PAC, UC, PBC, GC, PMC, PPC)

Date: 3/18/19

Campus: The University of New Orleans	Program: CIP, Certificate Designation, Title 52.1301- Management Science , Undergraduate Certificate in Data Analytics

Institutional Contact Person & Contact Info (if clarification is needed)

Dr. Tina Chang, J.D., Ph.D.
Associate Vice President for Professional and Continuing Education
University of New Orleans
2000 Lakeshore Drive
New Orleans, LA 70148
504-280-1024
tchang@uno.edu

Dr. Tumulesh Solanky, Department Chair, Mathematics
tsolanky@uno.edu

1. Certificate Description

Describe the program concept: purpose and objectives; proposed curriculum; mode of delivery (on-site/hybrid/on-line). Indicate which courses are new; describe plan for rolling out new courses.

** Attach catalog descriptions for the required and elective courses, including prerequisites and LCCN, when applicable. **

The University of New Orleans proposes to introduce an undergraduate certificate in Data Analytics. The proposed curriculum has been designed to provide students with the tools to meet the increased demand for professionals who can interpret, explain and present large quantities of data for decision-making.

The certificate will require 6 courses in the field of data analytics. The first course (Math 2314) introduces the field of statistics and data analytics. The next two courses, Math 4301 and Math 4304, will expose students to experimental design and two most commonly applicable tools in data analytics, namely analysis of variance and regression modelling. The next two courses, Math 4373 and Math 4385, will focus on commonly used skills in data analytics and statistical learning. These course provides an introduction both to the concept of data analytics and to the statistical principles required to successfully collect, review, organize and visualize data. The classes also focus on big data and the area of data mining. The six class in the course requirements will provide students with three options based on student's area of interest. The option 1 will be Math 4311 that focuses on the fundamental concepts of various data analytics methodologies. The option 2 will be in the area of financial mathematics that relies heavily on data-driven decision-making. The option 3 will focus on operations research to train students with the applications of advanced analytical methods to help make better decisions. Students will be able to select among the three options based on their specific interest and need. Courses will be available sequentially in the Fall and Spring terms. Entry into the program will be open to undergraduate students in current programs as well as to students who only want to pursue the certificate.

Requirement	Hours
MATH 2314 Elementary Statistical Methods	3
MATH 4301 Analysis of Variance and Experimental Design	3
MATH 4304 Introduction to Regression Analysis	3
MATH 4373 Data Analytics	3
MATH 4385 Statistical Learning	3
Options: One course from the list below	
Option 1: MATH 4311 Introduction to Mathematical Statistics	3

Option 2: MATH 4803 Financial Math I	3
Option 3: MATH 4270 Introduction to Optimization	3

The core courses have been designed for sequential progression through the requirements. Coursework will involve examples and applications in the fields of business, computer science, statistics and economics. Statistical packages/languages SAS, R and Python will be used for data analytics in the classes listed above.
All the courses listed above have been previously offered as a regular course or as a special topics course to the undergraduate students in mathematics, business, engineering and other disciplines.

Math 2314 course is conceived as an entry point for students from science and non-Science backgrounds. The class has Applied Algebra as the prerequisite. For the next four classes, Math 4301, 4304, 4373 and 4385, the Math 2314 serves as the prerequisite. For the various courses listed under options, the prerequisites are Calculus-I for Math 4803, Calculus-II for Math 4311 and Calculus-III for Math 4270. The calculus classes serve as prerequisites for a number of classes in various majors.

Each option corresponds to an area of anticipated workforce demand in the metropolitan New Orleans area.

Catalog Descriptions:
Required Courses:

MATH 2314 Elementary Statistical Methods
Prerequisite: MATH 1115 or higher or six hours of mathematics courses numbered at least 1000. Introduction to statistical methods. Topics include data analysis, frequency distributions, probability, inference, estimation, hypothesis testing, regression and correlation. Technology is required to explore and solve problems. Credit will not be allowed in both MATH 2314 and MATH 2785.

MATH 4301 Analysis of Variance and Experimental Design
Prerequisite: MATH 2314 or MATH 2785 or PSYC 1310 or SOC 2707. 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. Only one of MATH 5301 or 6301 may be counted toward a master's degree in Mathematics.

MATH 4304 Introduction to Regression Analysis
Prerequisite: MATH 2314 or MATH 2785 or PSYC 1310 or SOC 2707. Linear regression, 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. Only one of MATH 5304 or 6304 may be counted toward a master's degree in Mathematics.

MATH 4373 Data Analytics
Prerequisites: Math 2314 with a grade of C or better. Introduction to data analytics, data collection, data preparation, and data cleaning, data visualization, data Management, data mining, Fundamental concepts from statistics: Uncertainty, probability, variance, sampling, randomness, describing and displaying data, correlation, joint probability distribution, conditional probability distribution, Bayes theorem, prior and posterior probability distribution, verification and testing, significance testing, confidence intervals, sensitivity, specificity, ROC curves, calibration, Supervised and unsupervised learning, generalization, over-fitting, over-fitting avoidance, cross-validation. The focus of the class will be on in-depth instruction of the statistical concepts and the related statistical analysis. The programming aspects of the statistical topics covered in this class are discussed in CSCI 4587 and CSCI 4588.

MATH 4385 Statistical Learning
Prerequisites: MATH 2314 with grade C or better. This course covers major statistical learning methods and application to modern problems in science, industry and society. Major topics include multiple linear regression, classification, resampling methods, model selection and regularization, non-linear models, tree methods, support vector machines, and unsupervised machine learning. The focus of the class will be on in-depth instruction of the statistical concepts and the related statistical analysis. The programming aspects of the statistical topics covered in

this class are discussed in CSCI 4587 and CSCI 4588.

Required Elective: (one out of three)

MATH 4311 - Introduction to Mathematical Statistics
Prerequisite: MATH 2124. Axiomatic probability, discrete and continuous distributions, expectation, estimation, central limit theorem, confidence intervals and tests of hypotheses, regression, Bayesian statistics, other topics. Only one of MATH 5311 or 6311 may be counted toward a master's degree in Mathematics.

MATH 4803 Financial Math I
Prerequisites: MATH 2314 or MATH 2785, and MATH 2114. The Measurement of Interest, problems in interest, elementary annuities, yield rates, amortization schedules and sinking funds, bond and other securities, practical applications, more advanced financial analysis, a stochastic approach to interest. This is the material covered on Exam FM (Financial Mathematics) and Exam 2 administered by the Society of Actuaries and the Casualty Actuarial Society, respectively. This course requires the use of a financial calculator.

MATH 4270 Introduction to Optimization
Prerequisites: MATH 2134 and 3511 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.

2. Need

Outline how this program is deemed essential for the wellbeing of the state, region, or academy (e.g., how is it relevant, how does it contribute to economic development or relate to current/evolving needs). Identify similar programs in the state and explain why the proposed certificate is needed.

Increased access to data means that organizations have a greater need to turn data into valuable information for decision-making.
According to the Bureau of Labor Statistics Occupational Outlook Handbook, employment of research analysts is projected to grow 27 percent from 2016 to 2026, much faster than the average for all occupations, with a median annual wage of $81,390. The May 2017 Occupational Employment Statistics study found 450 positions in the state of Louisiana for data analysts, of which 310 were in the greater New Orleans area.

For Louisiana the Labor Market Information projects a 30% increase in job openings for analysts from 2014-2024. Due to the interdisciplinary nature of the field and the emphasis on applied options, the certificate could be easily adapted to serve the needs in the 5 sectors identified by GNO, Inc. as key industries: Digital Media, Health Sciences, Advanced Manufacturing, Water Management Industry, and Energy Industry. Noteworthy to the University of New Orleans is the anticipated growth in occupations requiring advanced training in GIS. A combination of coursework in our new GIS certificate and the Data Analytics certificate will give students a competitive advantage locally.

Based on BLS and McKinsey Global Institute projections the demand for "deep analytical positions" will exceed supply nationally.
Current programs offered in the state include:

- Graduate Certificate in Data Analytics in the College of Sciences at University of New Orleans
- M.S. in Analytics in the College of Business at Louisiana State University – Baton Rouge
- Online Graduate Certificate in Analytics in the College of Business at Louisiana State University-Baton Rouge

These programs offer broad preparation in the field of business analytics but not for application in disciplines beyond finance. The proposed certificate emphasizes application of data analytics in fields specific to workforce demand for the greater New Orleans region as befits the mission of the University of New Orleans.

An assessment of demand for employees with a undergraduate certificate in Data Analytics and related skills (analysis, teamwork, project management) in the metropolitan New Orleans area in Burning Glass Labor Insights

projects growth through 2020 with a salary above average for the area. Highest demand for these skills locally is expected in occupations associated with healthcare management, K-12 education, marketing, IT management and civil engineering. Each of these are areas in which the University is currently providing education and training for local students and the proposed certificate will offer an enhancement for students to advance in their field.

In addition, each of the courses offered in the proposed certificate will provide exposure to current applications and tools that are in high demand for employment. For example, the required courses will provide students with training in open-access statistical software, such as R, as well as Power BI and SAS. An assessment of the current labor market demand in Burning Glass Labor Insights indicates that the demand for employees with programming skills in R is expected to grow by 22%, in SAS by 10%, and in Python by 27%.

3. Students

Describe student interest. Project enrollment and productivity for the first 5 years; justify projections.

Enrollment in the currently offered courses is provided below:

Term	Subject	Students Enrolled
Spring/Fall 2018-19	Math 2314	Over 300 each year
Spring 2019	Math 4373 and Math 4385 (offered as special topics)	18 and 24 students
2018-19	Math 4301 and 4304	15 students in each
2018-19	Math 4803	Over 20 students
2017-18/2018-19	Math 4311 and Math 4270	About 15 students

Assuming that one third of current students enrolling in the required courses will also choose to complete the certificate, enrollment in the undergraduate certificate in data analytics would be expected to start with 10 in the first year. After one full year of marketing and awareness in the community, we would expect to double the number of enrollments from working professionals to 20, with 30% annual increases thereafter.

4. Accreditation

Describe plan for achieving program accreditation.

5. Faculty, Administration, & Other Resources

How will instructional needs be met: will additional faculty, facilities, equipment, or library resources be required? What department will deliver and oversee the proposed program?

The Department of Mathematics will deliver the courses but there will be oversight of undergraduate certificates through the Division of Professional and Continuing Education.

6. Cost

Summarize additional costs to offer the program. On separate budget sheet, estimate costs and revenues for the projected program for the first five years, indicating need for additional appropriations (if any).

Additional costs would be minimal for immediate implementation as this will leverage existing courses and faculty. Over time, it is anticipated that the enrollment growth may necessitate the need to hire adjunct faculty. Accordingly, in Year 3, it is projected that there would be a need to hire an adjunct or pay overload who would be able to teach one course and in Year 4, it is projected that there would be a need to hire an adjunct/pay overload compensation to someone who could teach two courses. The revenue was computed based on SCH generated by each student, based on current fees and tuition.

CERTIFICATIONS:

Tina Chang	3/27/2019
Primary Administrator for Proposed Certificate	Date
Mahyar Amouzegar	3/27/2019
Provost/Chief Academic Officer	Date
Management Board/System Office	04/25/19 Date

SUMMARY OF ESTIMATED ADDITIONAL COSTS/INCOME FOR PROPOSED CERTIFICATE

Institution: UNO **Date:** 3/18/2019

Certificate Program, Unit: Data Analytics

FTE = Full Time Equivalent (use the institution's standard definition and provide that definition).

EXPENDITURES								
	FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
	AMOUNT	FTE	Amount	FTE	AMOUNT	FTE	AMOUNT	FTE
Faculty (Adjunct)	$ -		$ 0		4500.00	.125	$ 9,000.00	.25
Graduate Assistants								
Support Personnel								
Fellowships and Scholarships								
SUB-TOTAL EXPENSES	$		$		$4,500	.125	$9,000	.25

	AMOUNT	AMOUNT	AMOUNT	AMOUNT
Facilities	$	$	$	$
Equipment				
Travel				
Supplies				
SUB-TOTAL	$	$	$	$
GRAND TOTAL EXPENSES	$0	$0	$4,500.00	$9,000.00

REVENUES								
Amount & Percentage of Total Anticipated From:	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	%
State Appropriations	$		$		$		$	
Federal Grants/Contracts								
State Grants/Contracts								
Private Grants/Contracts								
Tuition	$18,939.10		$28,408.65		$43,559.93		$56,817.30	
Fees	$7,540.90		$11,311.35		$17,344.07		$22,622.70	
Other (specify)								
TOTAL	$26,480		$39,720		$60,904		$79,440	

THE UNIVERSITY of
NEW ORLEANS
OFFICE OF THE PRESIDENT

March 19, 2019

Dr. Jim Henderson
President
The University of Louisiana System
1201 North Third Street
Baton Rouge, LA 70802

Dear Dr. Henderson,

The University of New Orleans requests approval for the attached Letter of Intent for an Undergraduate Certificate in Data Engineering. This certificate program is designed to teach students about communications, data and computer networks, and cloud services and architecture design.

Thank you for your consideration of this request. Please do not hesitate to contact me should you have any questions.

Sincerely,

John W. Nicklow
President

2000 Administration Annex | 2000 Lakeshore Drive | New Orleans, Louisiana 70148
phone 504.280.6201 | *fax* 504.280.6872

PROPOSAL to DEVELOP a NEW ACADEMIC CERTIFICATE PROGRAM
(CAS, PAC, UC, PBC, GC, PMC, PPC)

Date: 3/18/19

Campus: The University of New Orleans	Program: CIP, Certificate Designation, Title 140999, Undergraduate Certificate in Data Engineering

Institutional Contact Person & Contact Info (if clarification is needed)

Dr. Tina Chang, AVP of Professional and Continuing Education
The University of New Orleans
2000 Lakeshore Drive
New Orleans, LA 70148
504-280-1024
tchang@uno.edu

Dr. Taskin Kocak, Dean, College of Engineering
tkocak@uno.edu

Dr. Dimitrios Charalampidis, Department Chair, Electrical Engineering
dcharala@uno.edu

1. Certificate Description

Describe the program concept: purpose and objectives; proposed curriculum; mode of delivery (on-site/hybrid/on-line). Indicate which courses are new; describe plan for rolling out new courses.

** Attach catalog descriptions for the required and elective courses, including prerequisites and LCCN, when applicable. **

The University of New Orleans proposes to introduce an undergraduate certificate in Data Engineering. The proposed curriculum is based on four existing departmental courses and two new courses, and has been designed to teach students about communications, data and computer networks, and cloud services and architecture design.

The certificate will require 5 existing courses ENEE 1530, 2530, MATH 4311, ENEE 4097, and CSCI 4125 and one new courses ENEE4xxx. ENEE 1530 and 2530 provide a foundation in computer programming and data processing. MATH 4311 provides the statistical background required for data engineering. CSCI 4125 provides the knowledge needed to understand and process large data bases and management systems. The new course, ENEE 4097, will teach students basic data engineering and processing. Finally, the new course ENEE 4098 will introduce Deep Neural Networks. Regarding the latter, the EE department already offers a graduate course in Neural Networks, which can be easily revamped into an undergraduate course.

Requirement	Hours
ENEE 1530: Engineering Software Tools	3
ENEE 2530: Electrical Engineering Software Tools	3
MATH 4311: Introduction to Mathematical Statistics	3
CSCI 4125: Data Models and Database Systems	3
ENEE 4097: Special Topics in Electrical Engineering (Data Engineering)	3
ENEE 4xxx: Introduction to Deep Neural Networks	3

Catalog Descriptions:
Required

ENEE-1530 Engineering Software Tools

Pre-requisites: Math 1125 or higher. The course teaches the use of contemporary software tools for computer aided analysis, simulation, and design, and their application in different areas of Engineering.

ENEE-2530 Electrical Engineering Software Tools

Prerequisite: Credit in (CSCI 1205 or ENEE 1530) and Credit or Registration in ENEE 2550. The course teaches the use of contemporary software tools in computer aided analysis and design applications for different areas of Electrical Engineering.

MATH 4311 - Introduction to Mathematical Statistics

Prerequisite: MATH 2124. Axiomatic probability, discrete and continuous distributions, expectation, estimation, central limit theorem, confidence intervals and tests of hypotheses, regression, Bayesian statistics, other topics. Only one of MATH 5311 or 6311 may be counted toward a master's degree in Mathematics.

CSCI 4125 Data Models and Database Systems

Prerequisite: CSCI 2125. Methods, structures, and algorithms used for the organization, representation, and manipulation of large data bases; design and implementation of data base management systems. Students will be required to develop a large project in a team setting.

ENEE-4097 Special Topics in Electrical Engineering

Prerequisite: Consent of department. Special lectures on subjects of current interest in the various fields of electrical 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 4xxx: Introduction to Deep Neural Networks (in development)

2. Need

Outline how this program is deemed essential for the wellbeing of the state, region, or academy (e.g., how is it relevant, how does it contribute to economic development or relate to current/evolving needs). Identify similar programs in the state and explain why the proposed certificate is needed.

According to a Forbes article from about 15 months ago found at the following web site, https://www.forbes.com/sites/louiscolumbus/2017/12/11/linkedins-fastest-growing-jobs-today-are-in-data-science-machine-learning/#798439c451bd, machine learning engineers, data scientists, and big data engineers rank have been among the fastest growing jobs. More specifically, according to this article, machine learning engineering jobs increased 9.8 times in the period 2012 to 2017.

The proposed certificate concentrates exactly on these popular fields including deep neural networks (which will also include concepts from machine learning), in addition to the general data engineering course. It is expected that the proposed certificate will provide the skills necessary so that graduates of the program will be eligible to apply for these fast growing jobs.

We are not currently aware of another similar undergraduate certificate offered in the state of Louisiana. Although data engineering certification is available in various forms, the proposed certificate teaches students material at a higher academic (university) level. The certificate will not only be available to students who are currently pursuing an undergraduate Electrical Engineering or Computer Engineering degree, but to graduates with a different background. In particular, the undergraduate nature of the certificate facilitates its availability to larger groups of potential students.

3. Students

Describe student interest. Project enrollment and productivity for the first 5 years; justify projections.

Our department is currently in the process of expanding from Electrical Engineering to Electrical and Computer Engineering. Currently, we only offer a concentration in Computer Engineering. Students pursuing this concentration

account for about 15% of the total enrollment in the program (which is about 200 students). Introduction of this certificate will facilitate our efforts to expand our capabilities in the Computer Engineering field. Successful accomplishment of this goal could help us increase our enrollment by 25% in the first few years.

4. Accreditation

Describe plan for achieving program accreditation.

The College of Engineering, Electrical Engineering Department and its programs, and computer science and its programs are fully accredited by ABET

5. Faculty, Administration, & Other Resources

How will instructional needs be met: will additional faculty, facilities, equipment, or library resources be required? What department will deliver and oversee the proposed program?

The Departments of Electrical Engineering, Mathematics, and Computer Science will deliver the courses but there will be oversight of undergraduate certificates through the Division of Professional and Continuing Education.

6. Cost

Summarize additional costs to offer the program. On separate budget sheet, estimate costs and revenues for the projected program for the first five years, indicating need for additional appropriations (if any).

There will be no additional cost in the first three years but in year four it is expected that there would be a need for a .125 FTE to teach an additional section. The revenue was computed based on SCH generated by each student, based on current fees and tuition.

CERTIFICATIONS:

Tina Chang	3/27/2019
Primary Administrator for Proposed Certificate	Date
Mahyar Amouzegar	3/27/2019
Provost/Chief Academic Officer	Date
Management Board/System Office	04/25/19 Date

SUMMARY OF ESTIMATED ADDITIONAL COSTS/INCOME FOR PROPOSED CERTIFICATE

Institution: UNO **Date:** 3/18/19

Certificate Program, Unit: *Data Engineering*

FTE = Full Time Equivalent (use the institution's standard definition and provide that definition).

EXPENDITURES								
	FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
	AMOUNT	FTE	Amount	FTE	AMOUNT	FTE	AMOUNT	FTE
Faculty (Adjunct)	$		$		$		$4,500.00	.125
Graduate Assistants								
Support Personnel								
Fellowships and Scholarships								
SUB-TOTAL EXPENSES	$		$		$		$4,500	.125

	AMOUNT	AMOUNT	AMOUNT	AMOUNT
Facilities	$	$	$	$
Equipment				
Travel				
Supplies				
SUB-TOTAL	$	$	$	$
GRAND TOTAL EXPENSES	$0	$0	$0	$4,500.00

REVENUES								
Amount & Percentage of Total Anticipated From:	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	%
State Appropriations	$		$		$		$	
Federal Grants/Contracts								
State Grants/Contracts								
Private Grants/Contracts								
Tuition	$13,257.37		$24,620.83		$34,090.38		$47,347.75	
Fees	$5,278.63		$9,803.17		$13,573.62		$18,852.25	
Other (specify)								
TOTAL	$ 18,536		$ 34,424		$ 47,664		$66,200	

THE UNIVERSITY of
NEW ORLEANS

OFFICE OF THE PRESIDENT

March 19, 2019

Dr. Jim Henderson
President
The University of Louisiana System
1201 North Third Street
Baton Rouge, LA 70802

Dear Dr. Henderson,

The University of New Orleans requests approval for the attached Letter of Intent for an Undergraduate Certificate in Power and Energy Systems. This certificate program is designed to teach students how to perform analysis, modeling, design, and planning of electric power systems, as well as the principles of electromechanical energy conversion and their application to electric machines.

Thank you for your consideration of this request. Please do not hesitate to contact me should you have any questions.

Sincerely,

John W. Nicklow
President

2000 Administration Annex | 2000 Lakeshore Drive | New Orleans, Louisiana 70148
phone 504.280.6201 | *fax* 504.280.6872

PROPOSAL to DEVELOP a NEW ACADEMIC CERTIFICATE PROGRAM
(CAS, PAC, UC, PBC, GC, PMC, PPC)

Date: 3/18/19

Campus: The University of New Orleans	Program: CIP, Certificate Designation, Title 141001, Undergraduate Certificate in Power and Energy Systems

Institutional Contact Person & Contact Info (if clarification is needed)
Dr. Tina Chang, AVP of Professional and Continuing Education
The University of New Orleans
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Dr. Taskin Kocak, Dean, College of Engineering
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Dr. Dimitrios Charalampidis, Department Chair, Electrical Engineering
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1. Certificate Description

Describe the program concept: purpose and objectives; proposed curriculum; mode of delivery (on-site/hybrid/on-line). Indicate which courses are new; describe plan for rolling out new courses.

** Attach catalog descriptions for the required and elective courses, including prerequisites and LCCN, when applicable. **

The University of New Orleans proposes to introduce an undergraduate certificate in Power and Energy Systems. The proposed curriculum is based on existing departmental courses, and has been designed to teach students how to perform analysis, modeling, design, and planning of electric power systems, as well as the principles of electromechanical energy conversion and their application to electric machines.

The certificate will require 6 courses and a lab in ENEE 2550, 2551, 3521, 3511, 3522, 4522, 4526. ENEE 2550 and 2551 provide a foundation in electricity and circuit analysis, and teach basic concepts in transformers and power systems. ENEE 3522 provides a more in-depth introduction to electric power systems, while ENEE 4522 concentrates on the modeling, analysis, and planning of power systems. ENEE 3521 teaches the principles of electromechanical energy conversion associated with power system components, and mainly electric machines. The lab, ENEE 3511, provides hands on experience with energy conversion equipment including various types of transformers, generators, and motors. ENEE 4526 teaches about the protection of power system components such as transmission lines, generators, and motors from faults.

Requirement	Hours
ENEE 2550: Circuits I	3
ENEE 2551: Circuits II	3
ENEE 3521: Electric Machinery	3
ENEE 3511: Energy Conversion Lab	1
ENEE 3522: Electrical Power Systems	3
ENEE 4522: Power Systems Planning and Design	3
ENEE 4526: Protective Relaying of Power Systems	3

Students with limited background in mathematics and physics may be required to complete some additional prerequisites such as MATH 2114 (4 credits), MATH 2124 (4 credits), PHYS 1061 (3 credits), PHYS 1062 (3 credits).

Catalog Descriptions:
Required
ENEE 2550 Circuits I
Prerequisites: MATH 2111 or 2114 (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
Prerequisite: ENEE 2550 with C or better, and 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 3521 Electric Machinery
Prerequisite: ENEE 2551 with C or better. Introduction to the theory of electromechanical energy conversion with special application to the theory and operation of electrical machines and machine control systems.

ENEE 3511 Energy Conversion Laboratory
Prerequisite: Credit or registration in ENEE 3521. Introduction to energy conversion equipment, single and three phase power transformers, DC and AC machines. Three hours of laboratory.

ENEE 3522 Electrical Power Systems
Prerequisite: ENEE 2551 with C or better. Introduction to industrial and utilities electric power systems, poly-phase systems, fault conditions, per-unit values, and the method of symmetrical components.

ENEE 4522 Power System Planning and Design
Prerequisite for ENEE 4522: 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 written and oral report will be required.

ENEE 4526 Protective Relaying of Power Systems
Prerequisite for ENEE 4526: 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.

2. Need

Outline how this program is deemed essential for the wellbeing of the state, region, or academy (e.g., how is it relevant, how does it contribute to economic development or relate to current/evolving needs). Identify similar programs in the state and explain why the proposed certificate is needed.

According to https://www.careeronestop.org/, and in particular according to the following web site: https://www.careeronestop.org/Toolkit/StateAndLocal/ProjectedEmployment.aspx?soccode=172071&location=louisiana, Electrical Engineering jobs are estimated to grow by 9% nationwide and by 18% in Louisiana from 2016 to 2026.

	Employment 2016	Employment 2026	Percent Change	Projected Annual Job Openings*
United States	188,300	204,500	9%	13,900
Louisiana	1,560	1,830	18%	130

*Projected Annual Job Openings refers to the average annual job openings due to growth and net replacement.

According to a more detailed table which can be found at the Bureau of Labor Statistics (https://www.bls.gov/emp/ind-occ-matrix/occ-xlsx/occ-17-2071.xlsx), in 2016, the Electric power generation, transmission and distribution industry accounted for a significant portion (9.7%) of the Electrical Engineering employment nationwide with 18,300 jobs, and is expected to grow to 19,200 jobs by 2026, which is a percent increase of 4.9%. Therefore, graduates of the Power and Energy Systems certificate will acquire new skills which will provide them with the opportunity to find employment in this type of industry.

We are not currently aware of another similar undergraduate certificate offered in the state of Louisiana. The certificate will not only be available to students who are currently pursuing an undergraduate Electrical Engineering degree, but to graduates with a different background. In particular, the undergraduate nature of the certificate

facilitates its availability to larger groups of potential students.

3. Students

Describe student interest. Project enrollment and productivity for the first 5 years; justify projections.

One of the best indications that this certificate may attract a large interest is that electives in the area of Power and Energy Systems offered by the Electrical Engineering department at the University of New Orleans attract a large number of students.

For example, ENEE 3521 and 3522, two of the core courses in the certificate, were the electives with the highest enrollment in the Electrical Engineering department in Fall 2018. In particular, they had an enrollment of 33 students each. On the other hand, the other three Electrical Engineering electives offered in Fall 2018 had less than 20 students enrolled.

Similarly, ENEE 3521 and 3522 were the electives with the highest enrollment in the Electrical Engineering department in Fall 2017, with 28 students each. Of the other two electives, one had an enrollment of 19, and the other was cancelled due to low enrollment.

In fact, the reason why a large percentage of electives are offered in the area of Power and Energy Systems is exactly because students are interested in this area. Part of the reason is that several of our graduates find internships and full time jobs in this field, especially around the New Orleans area and in Louisiana.

4. Accreditation

Describe plan for achieving program accreditation.

The College of Engineering, Electrical Engineering Department and its programs are fully accredited by ABET

5. Faculty, Administration, & Other Resources

How will instructional needs be met: will additional faculty, facilities, equipment, or library resources be required? What department will deliver and oversee the proposed program?

The Department of Electrical Engineering will deliver the courses but there will be oversight of undergraduate certificates through the Division of Professional and Continuing Education.

6. Cost

Summarize additional costs to offer the program. On separate budget sheet, estimate costs and revenues for the projected program for the first five years, indicating need for additional appropriations (if any).

No additional cost is required for the initial implementation of the certificate, because all courses currently exist in the Department of Electrical Engineering. The revenue was computed based on SCH generated by each student, based on current fees and tuition.

CERTIFICATIONS:

Tina Chang — 3/27/2019

Primary Administrator for Proposed Certificate — Date

Mahyar Amazegar — 3/27/2019

Provost/Chief Academic Officer — Date

Management Board/System Office — Date 04/24/19

SUMMARY OF ESTIMATED ADDITIONAL COSTS/INCOME FOR PROPOSED CERTIFICATE

Institution: *UNO*

Date: 3/18/2019

Certificate Program, Unit: *Power and Energy Systems*

FTE = Full Time Equivalent (use the institution's standard definition and provide that definition).

EXPENDITURES								
	FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
	AMOUNT	FTE	Amount	FTE	AMOUNT	FTE	AMOUNT	FTE
Faculty (adjunct)	$		$		$		$	
Graduate Assistants								
Support Personnel								
Fellowships and Scholarships								
SUB-TOTAL EXPENSES	$		$		$		$	

	AMOUNT	AMOUNT	AMOUNT	AMOUNT
Facilities	$	$	$	$
Equipment				
Travel				
Supplies				
SUB-TOTAL	$	$	$	$
GRAND TOTAL EXPENSES	$0	$	$	$

REVENUES								
Amount & Percentage of Total Anticipated From:	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	%
State Appropriations	$		$		$		$	
Federal Grants/Contracts								
State Grants/Contracts								
Private Grants/Contracts								
Tuition	$ 11,363.46		$ 18,939.10		$ 26,514.74		$ 30,302.56	
Fees	$ 4,524.54		$ 7,540.90		$ 10,557.26		$ 12,065.44	
Other (specify)								
TOTAL	$ 15,888		$ 26,480		$37,072		$ 42,368	

THE UNIVERSITY of
NEW ORLEANS

OFFICE OF THE PRESIDENT

March 18, 2019

Dr. Jim Henderson
President
The University of Louisiana System
1201 North Third Street
Baton Rouge, LA 70802

Dear Dr. Henderson,

The University of New Orleans requests approval for the attached Letter of Intent for an Undergraduate Certificate in Software Engineering. The purpose of the certificate program is designed to teach students how to apply the principles of software engineering to the design, development, maintenance, testing, and maintenance of software systems.

Thank you for your consideration of this request. Please do not hesitate to contact me should you have any questions.

Sincerely,

John W. Nicklow
President

2000 Administration Annex | 2000 Lakeshore Drive | New Orleans, Louisiana 70148
phone 504.280.6201 | *fax* 504.280.6872

PROPOSAL to DEVELOP a NEW ACADEMIC CERTIFICATE PROGRAM
(CAS, PAC, UC, PBC, GC, PMC, PPC)

Date: 3/18/19

Campus: The University of New Orleans	Program: CIP, Certificate Designation, Title14.0903 Undergraduate Certificate in Software Engineering

Institutional Contact Person & Contact Info (if clarification is needed)

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Dr. Mahdi Abdelguerfi, Department Chair, Computer Science
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1. Certificate Description

Describe the program concept: purpose and objectives; proposed curriculum; mode of delivery (on-site/hybrid/on-line). Indicate which courses are new; describe plan for rolling out new courses.

** Attach catalog descriptions for the required and elective courses, including prerequisites and LCCN, when applicable. **

The University of New Orleans proposes to introduce an undergraduate certificate in Software Engineering. The proposed curriculum based on existing departmental courses has been designed to teach students how to apply the principles of software engineering to the design, development, maintenance, testing, and maintenance of software systems.

To achieve a certificate, a student will have to meet prerequisite, complete a set five of required courses and two courses that the students will choose from a pool of four 3-credit courses. This certificate will be a total of 19 credit hours plus two prerequisite courses, for 4 credit hours.

	Courses	**Credit Hours**
Prerequisites	CSCI 1581: Software Design and Development I Laboratory	1
	CSCI 1583: Software Design and Development I	3
Required	CSCI 2120: Software Design and Development II	3
	CSCI 2121: Software Design and Development II Laboratory	1
	CSCI 2125: Data Structures	3
	CSCI 4125: Data Models and Database Systems	3
	CSCI 4210: Intro to Software Engineering	3
Choose two	CSCI 4208: Developing Advanced Web Applications	3
	CSCI 4661: Topics in Mobile Applications Development	3
	CSCI 4990: Special Topics in Computer Science	3
	CSCI 3097: Problems in Computer Science (internship)	3

Prerequisites:
CSCI 1583 and its associated lab (CSCI 1581). These courses teach the fundamentals of programming concepts and introduces the student to popular programming languages.

Required courses:
Students must complete a sequence of five courses CSCI 2120 (and its associated lab CSCI 2121), CSCI 2125, CSCI 4125, and CSCI 4210, which have been designed for sequential progression in learning. CSCI 2120 along with the associated lab (CSCI 2121) introduces students to writing programs using a popular programming language. CSCI 2125 emphasizes the design and implementation of structured in-memory data objects and their efficient manipulation. CSCI 4125 introduces database concepts and techniques for persistent storage and retrieval of data. CSCI 4210 will cover software architecture, design principles, software life cycles, software process activities from requirement elicitation to implementation and maintenance.

Choice of Two out of Four:
Students will choose two out of four 3-credit courses (CSCI 4208, CSCI 4661, CSCI 4990, CSCI 3097). CSCI 4208 will introduce techniques and tools for developing web applications. CSCI 4661 will teach the development of software applications for mobile platforms such as Android and iOS. CSCI 4990 offers special computer science topics aligned with recent advancements and technological trends. CSCI 4990 will be acceptable for credit when a topic particularly relevant to software engineering will be offered. CSCI 3097 enables students to obtain hands-on experience in software engineering through internships in software industry. With departmental prior approval, upon completion of the internships, a student can get credits for CSCI 3097. To claim credits, students must submit a technical report, make a departmental presentation, in addition to their performance evaluation obtained from their host organization/company.

Catalog Descriptions:
Prerequisites

CSCI-1581 Software Design and Development I Laboratory

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

Prerequisite: MATH 1115 or higher with a grade of C or better; Eligibility for Math 1125 or higher, 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. Except as provided for in individual college policies a student may receive credit in only one of CSCI 1060, 1201, 1203, 1205, and 1583.

Required

CSCI-2120 Software Design and Development II

Prerequisites: CSCI 1583 and 1581; concurrent registration in CSCI 2121 is required. (The successor course CSCI 2125 has MATH 3721 as a co-requisite; credit or concurrent registration in MATH 1116 or MATH 1126, which are prerequisites for MATH 3721, 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.

CSCI-2121 Software Design and Development II Laboratory

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

Prerequisites: CSCI 2120 and 2121. Credit or concurrent registration in MATH 3721 is required. 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-4125 Data Models and Database Systems

Prerequisite: CSCI 2125. Methods, structures, and algorithms used for the organization, representation, and manipulation of large data bases; design and implementation of data base management systems. Students will be required to develop a large project in a team setting.

CSCI-4210 Introduction to Software Engineering

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.

Choose two

CSCI-4208 Developing Advanced Web Applications

Prerequisite: CSCI 2125 or CSCI 2467. 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-4661 Topics in Mobile Applications Development

Prerequisites for CSCI 4661: Credit or concurrent registration in CSCI 2125. Development of program applications for a current widely available mobile platform. Key concepts of applications programming for a mobile platform including the UI system, activity lifecycle, sensors, networking, threading, and application compatibility. May be taken 2 times for a maximum of 6 credit hours.

CSCI-4990 Special Topics in Computer Science

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 taken twice for a total of 6 credit hours.

CSCI-3097 Problems in Computer Science

Prerequisites: CSCI 2467, an average of B in all CSCI courses attempted, and the consent of the department. May be repeated up to a maximum of six credits. Directed effort on some relatively complex computer science projects.

2. Need

Outline how this program is deemed essential for the wellbeing of the state, region, or academy (e.g., how is it relevant, how does it contribute to economic development or relate to current/evolving needs). Identify similar programs in the state and explain why the proposed certificate is needed.

According to the Bureau of Labor Statistics Occupational Outlook Handbook, employment of software developers is projected to grow much faster than the average for all occupations. Employment of applications developers is projected to grow 31 percent, and employment of systems developers is projected to grow 11 percent. The main reason for the growth in both applications developers and systems developers is a large increase in demand for computer software. The need for new applications on smart phones and tablets will help increase the demand for

applications software developers. The health and medical insurance and reinsurance carriers industry will need innovative software to manage new healthcare policy enrollments and administer existing policies digitally.

More specifically, the projected employment for applications developers in the State of Louisiana is significantly higher than across the United States. There is a projected 64 percent change from 2016 to 2026 in Louisiana compared to a 31 percent change in the same time period across the United States. (Career One Stop Sponsored by the US Dept. of Labor).

Projected Employment for Software Developers, Applications in NEW ORLEANS, LA

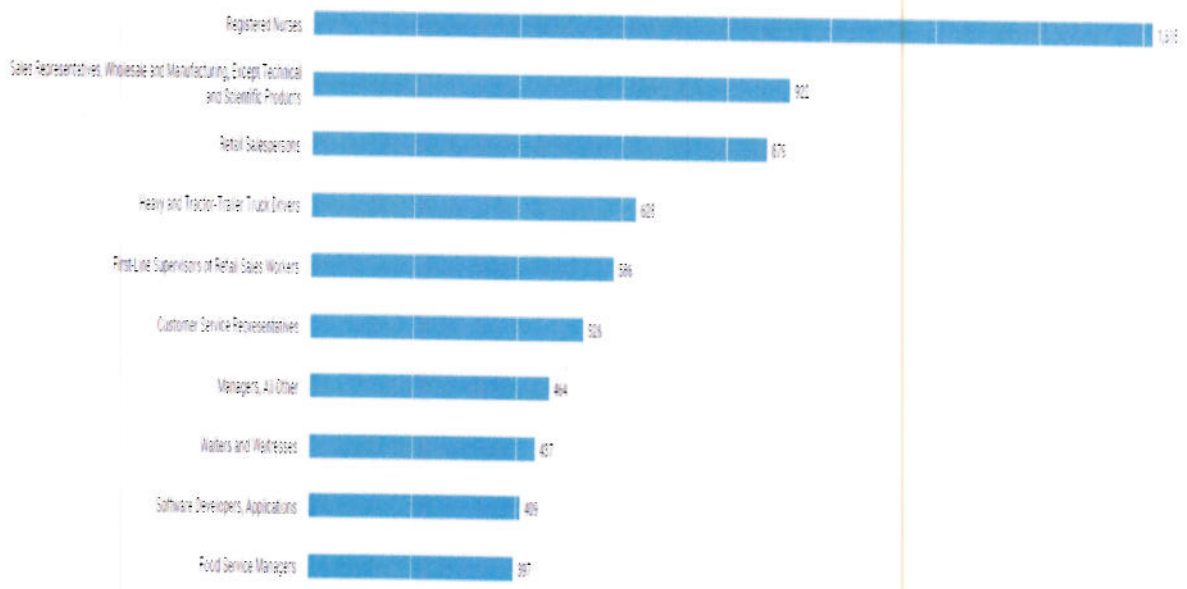
View National Data

View Table : View Chart : View Map

National	Employment		Percent Change	Projected Annual Job Openings*
	2016	2026		
United States	831,300	1,086,600	31%	85,700

State	Employment		Percent Change	Projected Annual Job Openings*
	2016	2026		
Louisiana	1,410	2,310	+64%	210

An assessment of demand for jobs reveals that software applications developers is ranked in the top ten in the New Orleans area. There were 28,791 jobs posted Dec. 14, 2018- Mar. 13, 2019.



Given the very healthy projected employment in software engineering and related jobs, UNO is proactively finding ways to reach more students and deepen their skills in this field. In doing so, this certificate will also be open to matriculated students who are non-computer science majors who have an interest and affinity towards software engineering. Computer science professors will have the added benefit of teaching in demand technical skills to students from other degree programs who have a background in agile methods, data analysis, problem solving, and storytelling to thrive in software engineering work post-graduation.

Current offerings in the state include:

- Software Engineering Concentration, LSU Baton Rouge, Louisiana
- Software Engineering Emphasis, Southern University

These programs offer preparation in the field of software engineering but are only open to computer science majors at the above-noted institutions. This proposed certificate is the culmination for a need to meet the workforce demand for software engineers in the greater New Orleans region. Unfortunately, the number of computer science graduates alone has not been able to meet the regional employer demand for software engineers. Consequently, more recently, employers like GE and DXC Technology have worked with for-profit tech boot camp enterprises to hire software engineers and full stack coders coming out of these programs. Many of these students do not possess a CS degree but did receive the technical training required to thrive at these companies. Creating this undergraduate certificate is a way to directly tap into UNO's broad pool of talented students who also possess essential skills such as agile methods, data analysis, problem solving, and storytelling which can be similar to the well-rounded students graduating from these boot camp programs according to our industry counterparts.

3. Students

Describe student interest. Project enrollment and productivity for the first 5 years; justify projections.

Enrollment in the currently offered courses in Computer Science, Management and Engineering Management is below:

Term	Subject	Students
Spring/Fall 2018	Computer Science	51
Fall 2018	Management	27
Spring 2018	Engineering Management	16

Potentially, this certificate may appeal to students in a myriad of degree programs outside of the Computer Science degree beyond the natural programmatic fits above. If 5-10% of students across the university enrolled in this certificate, UNO would go a long way to thoughtfully creating a pathway for high talent students that possess the essential (soft) and technical skills to thrive in a high demand job area.

4. Accreditation

Describe plan for achieving program accreditation.

Computer Science Department and its programs are fully accredited by ABET

5. Faculty, Administration, & Other Resources

How will instructional needs be met: will additional faculty, facilities, equipment, or library resources be required? What department will deliver and oversee the proposed program?

The Department of Computer Science will deliver the courses but there will be oversight of undergraduate certificates through the Division of Professional and Continuing Education.

6. Cost

Summarize additional costs to offer the program. On separate budget sheet, estimate costs and revenues for the projected program for the first five years, indicating need for additional appropriations (if any).

Additional costs would be minimal for immediate implementation, as all the courses already exist in the Dept. of Computer Science.

A small initial budget of $5,000 to market the program for the first year to potential students in the greater New Orleans region would be the greatest anticipated expense. Some of this may be used for student coaching if it is determined necessary to ensure that UNO develops a thriving cohort in line with regional employer demands. In year 2, it is projected that there would be an adjunct salary of $9,000 to account for teaching two courses. In years 3 and 4, it is projected that there would be adjunct salary of $18,000 for four courses respectively. The revenue was computed based on SCH generated by each student, based on current fees and tuition.

CERTIFICATIONS:

Tina Chang	3/27/2019
Primary Administrator for Proposed Certificate	Date
Mahyar Amouzegar	3/27/2019
Provost/Chief Academic Officer	Date
Management Board/System Office	04/25/19 Date

SUMMARY OF ESTIMATED ADDITIONAL COSTS/INCOME FOR PROPOSED CERTIFICATE

Institution: UNO **Date:** 3/18/2019

Certificate Program, Unit: Software Engineering

FTE = Full Time Equivalent (use the institution's standard definition and provide that definition).

EXPENDITURES								
	FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
	AMOUNT	FTE	Amount	FTE	AMOUNT	FTE	AMOUNT	FTE
Faculty (adjunct)	$		9,000	.25	18,000	.5	18,000	.5
Graduate Assistants								
Support Personnel								
Fellowships and Scholarships								
SUB-TOTAL EXPENSES	$		$9,000	.25	$18,000	.5	$18,000	.5

	AMOUNT	AMOUNT	AMOUNT	AMOUNT
Facilities	$	$	$	$
Marketing	$5,000			
Travel				
Supplies				
SUB-TOTAL	$	$	$	$
GRAND TOTAL EXPENSES	$ 5,000	$ 9,000	$ 18,000	$ 18,000

REVENUES								
Amount & Percentage of Total Anticipated From:	AMOUNT	%	AMOUNT	%	AMOUNT	%	AMOUNT	%
State Appropriations	$		$		$		$	
Federal Grants/Contracts								
State Grants/Contracts								
Private Grants/Contracts								
Tuition	$24,620.83		$49,241.66		$75,756.40		$98,483.32	
Fees	$9,803.17		$19,606.34		$30,163.60		$39,212.68	
Other (specify)								
TOTAL	$34,424		$68,848		$105,920		$137,696	

BOARD OF SUPERVISORS FOR THE UNIVERSITY OF LOUISIANA SYSTEM

FINANCE COMMITTEE

April 9, 2019

Item H.2. **University of New Orleans'** request for approval of a Cooperative Endeavor Agreement with InnoGenomics Technologies.

EXECUTIVE SUMMARY

The purpose of this agreement allows InnoGenomics and the University's Advanced Materials Research Institute (AMRI) to team up on the development of new nanomaterials and testing kit components. InnoGenomics is a Louisiana startup company in the development of innovative genetic testing solutions for applications in forensics and medicine. The purpose of the agreement will be the development of new nanomaterials and testing kit components. Initial projects will focus on the development of components for magnetic nanoparticle supported DNA testing and 3-D printed components for DNA testing kits.

RECOMMENDATION

It is recommended that the following resolution be adopted:

***NOW, THEREFORE, BE IT RESOLVED**, that the Board of Supervisors for the University of Louisiana System hereby approves University of New Orleans' request for approval of a Cooperative Endeavor Agreement with InnoGenomics Technologies.*

BOARD OF SUPERVISORS FOR THE UNIVERSITY OF LOUISIANA SYSTEM

FINANCE COMMITTEE

April 9, 2019

Item H.3. **University of Louisiana System's** recommendation to approve Campus Housing and Meal Plan Rates, Auxiliary Rates, Energy Surcharge, and Non-Governmental Charges for Academic Year 2019-20.

- Grambling State University
- Louisiana Tech University
- McNeese State University
- Nicholls State University
- Northwestern State University
- Southeastern Louisiana University
- University of Louisiana at Lafayette
- University of Louisiana at Monroe
- University of New Orleans

EXECUTIVE SUMMARY

The nine universities request approval to increase rates for resident and meal plan services as per the attached schedules. As has been past practice, System staff requested that campuses submit adjustments to their service rates for the upcoming academic year. Campuses consider a number of variables when considering adjustments to rates including contractual obligations, cost of operations, and/or market limitations. Campuses submitted their revised rates based upon their respective service offerings; therefore, campus offerings and rates vary accordingly.

RECOMMENDATION

It is recommended that the following resolution be adopted:

NOW, THEREFORE, BE IT RESOLVED, *that the Board of Supervisors for the University of Louisiana System hereby approves the University of Louisiana System's recommendation for Campus Housing and Meal Plan Rates, Auxiliary Rates, Energy Surcharge, and Non-Governmental Charges for Academic Year 2019-20:*

- *Grambling State University*
- *Louisiana Tech University*
- *McNeese State University*
- *Nicholls State University*
- *Northwestern State University*
- *Southeastern Louisiana University*
- *University of Louisiana at Lafayette*
- *University of Louisiana at Monroe*
- *University of New Orleans*

University of Louisiana System

University of Louisiana System

Housing, Meal Plan Rates, and Auxiliary Fees

Academic Year 2019-2020

April 9, 2019

Approved by the Board of Supervisors
for the University of Louisiana System
on 4/9/19
By: _____
Edwin Litolff, Vice President
for Business and Finance

Grambling State University

Description - Semester Rates	Current 2018-2019	Proposed 2019-2020	Increase	Percentage Increase
ROOM ONLY RATES				
Traditional (10 month lease)	1,615	1,615	0	0.0%
Double occupancy room				
Richmond (10 month lease)				
2 bed/1 bath	2,519	2,519	0	0.0%
1 bed/1 bath	2,668	2,668	0	0.0%
Tiger Village (10 month lease)				
Double occupancy and bath	2,836	2,836	0	0.0%
4 bed/2 bath	3,364	3,364	0	0.0%
2 bed/1 bath	3,890	3,890	0	0.0%
Campus Evolution (Off Campus)				
4 bed/2 bath	3,364	3,364	0	0.0%
Steeple Glen				
4 bed/4 bath	3,672	3,672	0	0.0%
West Campus				
Bungalow (2-Bed)	2,416	2,416	0	0.0%
Bungalow /Private	3,234	3,234	0	0.0%
House	3,332	3,332	0	0.0%
House/Private Bath	3,667	3,667	0	0.0%
Summer Session I or II housing	661	661	0	0.0%
Laundry Fee	50	50	0	
MEAL PLANS				
Fall & Spring Semester				
19 meals per week/$150 debit cash	1,839	1,839	0	0.0%
14 meals per week/$210 debit cash	1,839	1,839	0	0.0%
7 meals per week/$400 debit cash	1,839	1,839	0	0.0%
Summer Meal Plan				
1st Six Week Session	423	438	15	3.5%
2nd Six Week Session	409	438	29	7.1%

Louisiana Tech University

Housing Fees:	Current 2018-2019	Proposed 2019-2020	Increase	Percentage Increase
Residence Halls				
Regular Residence Hall Rate	980	1,000	20	2.0%
Private Residence Hall Rate	1,360	1,430	70	5.1%
University Park (Phase I) Rate				
12-month lease	1,545	1,620	75	4.9%
9-month lease (private)	1,840	1,940	100	5.4%
9-month lease (non-private)	1,550	1,630	80	5.2%
University Park (Phase II) Rate:				
12-month lease	1,810	1,900	90	5.0%
9-month lease (private)	2,150	2,260	110	5.1%
9-month lease (non-private)	1,850	1,940	90	4.9%
Park Place Rate:				
12-month lease (two and four bedroom)	1,810	1,900	90	5.0%
9-month lease (two and four bedroom private)	2,150	2,260	110	5.1%
9-month lease (two and four bedroom non-private)	1,850	1,940	90	4.9%
One bedroom, 9-month lease (private)	2,360	2,480	120	5.1%
One bedroom, 12-month lease	2,040	2,140	100	4.9%
Legacy Park				
9 month lease (non-private)	1,720	1,800	80	4.7%
12 month lease (non-private)	1,450	1,520	70	4.8%
Aswell & Dudley Suites				
9-month lease (non-private)	1,400	1,470	70	5.0%
12 month lease (non-private)	1,185	1,250	65	5.5%
Meal Plan Fees:				
All Access plan rate ($225 DB)	1,185	1,225	40	3.4%
All Access Premium plan rate ($400 DB)		1,385		
10-meal plan rate ($375 DB)	1,185	1,225	40	3.4%
Apartment meal plan ($475 DB, 90 or more credits)	475	485	10	2.1%
Optional Meal Plan Fee				
Commuter Plan (Voluntary Meal Plan)	250	250	-	0.0%

McNeese State University

Housing Rates	Current 2018-2019	Proposed 2019-2020	Increase	Percentage Increase
King, Watkins, Zigler 2 Bed/1 Bath Private	2,900	2,950	50	1.7%
King, Watkins, Zigler 6/2 Semi Private	2,075	2,125	50	2.4%
King, Watkins, Zigler 6/2 Private	2,575	2,625	50	1.9%
King, Watkins, Zigler 6/2 Large Private	2,750	2,800	50	1.8%
Bel and Sallier Gardens 4/2 Private (Apartment)	3,020	3,070	50	1.7%
Collette Hall Semi Private	1,450	1,450	-	0.0%
Collette Hall Private	1,650	1,650	-	0.0%
Burton Hall 2 Bed/1 Bath Private	3,075	3,125	50	1.6%
Burton Hall 4 Bed/2 Bath Private	2,975	3,025	50	1.7%
Sale Street Apartments (1 bed, private)	2,525	2,525	-	0.0%
Sale Street Apartments (2 bed, private)	3,775	3,775	-	0.0%

Housing: Rates coincide with initial pro forma estimates. They are also consistent with previous years.

Dining Plan Rates	2018-2019	2019-2020	Increase	Percentage
Cowboy with $225 DB Unlimited Access	1,687	1,771	84	5.0%
Cowgirl with $245 DB 19 meals/week	1,687	1,771	84	5.0%
Cowpoke with $265 DB 14 meals/week	1,687	1,771	84	5.0%
Kicker with $275 DB (apartments only) 5 meals/week	792	832	40	5.1%
Rowdy with $275 DB 10 meals	1,210	1,271	61	5.0%

**Prices rounded up to the next whole dollar.*

Meals: Chartwells contract allows increases in consideration of consumer prices indices, balanced with sound fiscal management. These increases are consistent with the contract. Also, this year's rates contain greater declining balance amounts giving students more flexibility

NICHOLLS STATE UNIVERSITY

	Current 2018-2019	Proposed 2019-2020	Increase	Percentage Increase
ROOM ONLY RATES - Per Semester				
Fall / Spring				
Babington, Ellender				
Single Occupancy	2,921	2,950	29	0.99%
Double Occupancy	2,054	2,075	21	1.02%
Calecas				
Single Occupancy	2,921	3,213	292	10.00%
Double Occupancy	2,054	2,259	205	9.98%
Scholars, Millet, Zeringue Halls				
Private	3,545	3,581	35	0.99%
Semi-Private	3,257	3,290	33	1.01%
Summer*				
Eight Week Term				
Single Occupancy	800	800	-	0.00%
Double Occupancy	532	532	-	0.00%
Four Week Term - Mini A & B				
Single Occupancy	400	400	-	0.00%
Double Occupancy	266	266	-	0.00%
(Residence hall students who move to Brady for Summer consolidation will be charged residence hall and meal plan rates.)				
International / Break - Fall/Spring				
Babington, Ellender				
Single Occupancy	3,257	3,290	33	1.0%
Double Occupancy	2,290	2,313	23	1.0%
Calecas				
Single Occupancy	3,257	3,583	326	10.0%
Double Occupancy	2,290	2,519	229	10.0%
Scholars, Millet, Zeringue Halls				
Private	3,850	3,890	40	1.0%
Semi-Private	3,521	3,556	35	1.0%
Brady Complex				
4 Bedroom w/ 2 Bathroom				
10-month lease	3,850	3,890	40	1.0%
2-month lease	1,540	1,556	16	1.0%
2 Bedroom w/ 2 Bathroom				
10-month lease	4,290	4,335	45	1.0%
2-month lease	1,716	1,734	18	1.0%
Family (Married) Housing Rates (Monthly Rates)				
One Bedroom	535	545	10	1.9%
Two Bedroom	595	605	10	1.7%

	Current 2018-2019	Proposed 2019-2020	Increase	Percentage Increase
MEAL PLAN RATES - Per Semester				
Fall / Spring				
Silver Level				
10 Meals, 5 days/$288 Munch Money	1,712	1,729	17	1.0%
15 Meals, 5 days/$230 Munch Money	1,712	1,729	17	1.0%
19 Meals, 7 days/$214 Munch Money	1,712	1,729	17	1.0%
Gold Level				
10 Meals, 5 days/$375 Munch Money	1,808	1,826	18	1.0%
15 Meals, 5 days/$315 Munch Money	1,808	1,826	18	1.0%
19 Meals, 7 days/$300 Munch Money	1,808	1,826	18	1.0%
Unlimited Plan - 7 days/$207 Dining Dollars	2,173	2,195	22	1.0%
Bronze Level (Brady residents only)				
5 Meals, 5 days/$321 Munch Money	1,018	1,028	10	1.0%
Brady - declining balance	586	592	6	1.0%
Summer*				
Eight Week Session				
19 Meals, 7 days/$113 Munch Money	872	872	-	0.0%
Four Week Session				
19 Meals, 7 days/$60 Munch Money	436	436	-	0.0%
Brady - Eight Week Session - declining balance	308	308	-	0.0%
Brady - Mini A or B - declining balance	164	164	-	0.0%

Northwestern State University

	Current 2018-2019	Proposed 2019-2020	Increase	Percentage Increase
University Place				
2 bed/2 bath Single	3,551	3,551	-	0.00%
2 bed/2 bath Double	2,702	2,702	-	0.00%
Includes: Utilities and cable				
University Columns				
Efficiency	2,937	2,944	7	0.24%
2 bed/2 bath Single	3,869	3,874	5	0.13%
4 bed/2 bath	2,923	2,930	7	0.24%
Includes: utilities for Efficiency $50, 2 bed $60, and 4 bed $100 per month and cable				
Rental increases are in line with revenue projections outlined in fund models.				
Varnado Hall				
Shared	2,925	2,948	22.50	0.77%
MEAL PLAN RATES				
19 meals with $200 DB - New		1,929		
14 meals with $325 DB - New		1,920		
5 meals with $600 DB	1,392	1,414	22	1.58%
10 meals per week - No DB	880	905	25	
Vic's Ultra - All declining balance	1,150	1,175	25	2.17%
Vic's Lite - All declining balance	725	750	25	3.45%
25 meals/semester with 350 DB	555	565	10	1.80%
25 meals per semester	205	215	10	4.88%

The rate increases comply with contractual obligation of current food services contract and is supported by the Consumer Price Index Summary.

SOUTHEASTERN LOUISIANA UNIVERSITY

ROOM ONLY RATES*	Current 2018-2019	Proposed 2019-2020	Increase	Percentage Increase
Fall & Spring				
Ascension & Twelve Oaks Residence Halls				
New Hall - Shared	2,545	2,700	155	6.1%
New Hall - Private	3,590	3,700	110	3.1%
Cardinal Newman, Louisiana, Hammond, Pride, Tangipahoa, & Taylor Residence Halls -Shared	2,470	2,525	55	2.2%
Livingston, St. Tammany, & Washington Residence Halls Private	3,485	3,500	15	0.4%
The Village Residence Hall - Shared	2,470	2,525	55	2.2%
The Village (Organizational Housing) - Shared	2,960	3,000	40	1.4%
The Village - Parlor Fee	155	155	-	0.0%
Southeastern Oaks Apartments				
2 Bedroom	4,235	4,200	(35)	-0.8%
4 Bedroom	3,530	3,500	(30)	-0.8%
Summer				
Residence Hall - Shared	1,015	1,025	10	1.0%
Residence Hall - Private	New	1,425		
Southeastern Oaks Apartments				
2 Bedroom	1,775	1,775	-	0.0%
4 Bedroom	1,420	1,425	5	0.4%

*Proposed increases would be necessary to comply with established Proforma for bond issue

MEAL PLAN RATES**				
Fall & Spring				
All Access 7 Plan (250 DB)	1,640	1,675	35	2.1%
All Access 7 Plan - Upgrade (400 DB)	1,740	1,775	35	2.0%
Gold Plan - 8 Plan (575 DB)	1,580	1,615	35	2.2%
Cub Plan - (400 DB - Mandatory Plan)	1,480	1,515	35	2.4%
Organizational Plan 1 (All DB)	1,080	1,100	20	1.9%
Organizational Plan 2 (225 DB)	800	815	15	1.9%
Commuter Plan (All DB)	300	300	-	0.0%
Pack 18 - 18 meals (295 DB)	400	400	-	0.0%
Pack 30 - 30 meals (205 DB + $120 Home Chef)	New	500		
Pack 48 - 48 meals (375 DB)	600	600	-	0.0%
Summer				
Summer Meal Plan - All Declining Balance	400	415	15	3.8%

**Proposed increases comply with contractual obligation of current food service contract.

University of Louisiana at Lafayette

Room Only Rates	Current 2018-2019	Proposed 2019-2020	Increase	Percentage Increase
Baker & Huger Halls				
Singles	4,531	4,667	136	3.0%
Doubles	3,199	3,295	96	3.0%
Graduate	4,631	4,770	139	3.0%
Staff	4,531	4,667	136	3.0%
Hall Directors	6,218	6,405	187	3.0%
Shared Studio - New		3,435		
Private Studio - New		5,303		
Harris & Conference Center				
Singles	3,180	3,045	(135)	-4.2%
Doubles	2,199	2,265	66	3.0%
Graduate	3,280	3,122	(158)	-4.8%
Staff	3,180	3,045	(135)	-4.2%
Hall Directors	3,368	3,469	101	3.0%
Conference Center				
Single	3,052	3,144	92	3.0%
Doubles	2,288	2,357	69	3.0%
Triple	1,532	1,578	46	3.0%
Quad	1,256	1,295	39	3.1%
Graduate	3,128	3,222	94	3.0%
Staff	3,052	3,144	92	3.0%
Hall Directors	3,330	3,430	100	3.0%
Rose Garden (Bonin & Coronna)				
Single	4,531	4,667	136	3.0%
Doubles	3,199	3,295	96	3.0%
Graduate	4,631	4,770	139	3.0%
Staff	4,531	4,667	136	3.0%
Hall Directors	6,218	6,405	187	3.0%
Legacy Park Apartments				
1/1 Shared (Shared)	3,250	3,250	-	0.0%
1/1 Shared (Private)	6,499	6,499	-	0.0%
2/2 Single	3,786	3,780	(6)	-0.2%
3/3 Single	3,769	3,286	(483)	-12.8%

Room Only Rates	Current 2018-2019	Proposed 2019-2020	Increase	Percentage Increase
The Heritage Apartments				
2/2 Single - New		4,038		
3/3 Single - New		3,543		
4/4 Single - New		3,262		
Family - Furn.	4,637	4,776	139	3.0%
Family - UnFurn.	4,324	4,454	130	3.0%
Family Housing Cajun Village	3,242	3,339	97	3.0%
Meals Plans:				
Cajun Freedom - unlimited meals $75 DB	2,083	2,083	-	0.0%
Cajun Select - 14 meals $250 DB	1,671	1,671	-	0.0%
Cajun Classic Plan - 5 meals per week and $300 dB	919	919	-	0.0%
Cajun Performance Plan - 12 meals + 5 training table	2,083	2,083	-	0.0%
Cajun RA - 5 Flex meals +$500 DB	1,125	1,125	-	0.0%
Cajun Classic Light - 5 Meals No DB	589	589	-	0.0%
Summer Light - 5 meals No DB	315	315	-	0.0%

University of Louisiana at Monroe

ROOM ONLY RATES	Current 2018-2019	Proposed 2019-2020	Increase	Percentage Increase
Resident Hall				
Masur Dorm - Double	1,368	1,382	14	1.0%
Madison Dorm - Double	1,482	1,497	15	1.0%
Ouachita Dorm - Double	1,482	1,497	15	1.0%
Masur Dorm - Single	2,197	2,219	22	1.0%
Madison Dorm - Single	2,451	2,476	25	1.0%
Ouachita Dorm - Single	2,451	2,476	25	1.0%
University Suites				
University Commons I	2,184	2,206	22	1.0%
University Commons II	2,792	2,820	28	1.0%
Bayou Suites	2,792	2,820	28	1.0%
University Apartments				
Apt 4 Bedroom 10 month	3,055	3,086	31	1.0%
Apt 4 Bedroom 12 month	3,259	3,292	33	1.0%
Apt 2 Bedroom 12 month	3,720	3,757	37	1.0%
Apt 1 bedroom 12 month	4,404	4,448	44	1.0%
MEAL PLAN RATES				
All Access Unlimited meals + $100 Flex	1,753	1,802	49	2.8%
Maroon Plan - 160 meals per semester +$515 Flex	1,633	1,679	46	2.8%
Village Plan- 55 meals per sem + $415 Flex	875.50	900	24.50	2.8%
Commuter Plan 1- 20 meals + $275 Flex per sem	400	411	11	2.8%
Commuter Plan 2- all Flex dollars	300	308	8	2.8%
Schulze Commuter - 30 meals per semester	150	154	4	2.8%
All Access Gold - Unlimited Meals + $200 Flex	New	1,894		
All Access Platinum - Unlimited Meals + $300 Flex	New	1,984		

Rationale-

Requested meal plan prices- Proposed increase comply with Aramark's contractual obligation for the CPI(which is currently 2.8%) but no more than 5%.

Requested Housing Rate increases- Proposed increases would be necessary to comply with established Proforma for bond issue.

University of New Orleans

	Current 2018-2019	Proposed 2019-2020	Increase	Percentage Increase
Pontchartrain Hall:				
All Residents must purchase a resident meal plan				
SEMESTER (Fall or Spring)				
1 BR	4,265	4,415	150	3.5%
2 BR	3,575	3,690	115	3.2%
4 BR 97sq ft	2,890	2,975	85	2.9%
4 BR 90sq ft	2,890	2,975	85	2.9%
SUMMER Semester Only				
1 BR	2,595	2,685	90	3.5%
2 BR	2,225	2,295	70	3.1%
4 BR 97sq ft	1,920	1,975	55	2.9%
4 BR 90sq ft	1,920	1,975	55	2.9%
ACADEMIC (Fall and Spring Semesters)				
1 BR	8,200	8,490	290	3.5%
2 BR	7,000	7,225	225	3.2%
4 BR 97sq ft	5,545	5,710	165	3.0%
4 BR 90sq ft	5,545	5,710	165	3.0%
FULL YEAR (12 months)				
1 BR	10,490	10,850	360	3.4%
2 BR	8,775	9,050	275	3.1%
4 BR 97sq ft	7,010	7,225	215	3.1%
4 BR 90sq ft	7,010	7,225	215	3.1%
Conference Rates				
1 BR	60	60	-	0.0%
2 BR	50	50	-	0.0%
4 BR 97sq ft	40	40	-	0.0%
Lafitte Village - Married/Family Student Housing				
1-Bedroom Unit	755	755	-	0.0%
2-Bedroom Unit	865	865	-	0.0%
Associated Fees:				
Extended Stay Fee between semesters	250	250	-	0.0%
Late Rental Fee	35	35	-	0.0%
Deposit	250	250	-	0.0%
Application Fee	100	100	-	0.0%
Contract Buyout Fee	500	500	-	0.0%

	Current 2018-2019	Proposed 2019-2020	Increase	Percentage Increase
Resident Meal Plans				
19 meals plus $200 Declining Balance	1,850	1,906	56	3.0%
14 meals plus $100 Declining Balance	1,745	1,797	52	3.0%
19 meals anytime/anywhere $100 DB	2,100	2,163	63	3.0%
Summer - $900 all Declining Balance	900	927	27	3.0%
Commuter Meal Plans				
50 Meal Block plus $324 Declining Balance	700	721	21	3.0%
25 Meal Block plus $197 Declining Balance	395	407	12	3.0%
$354 Declining Balance + $15 Bonus	354	354	-	0.0%
$125 Declining Balance	150	150	-	0.0%
Summer - $75 all Declining Balance	75	75	75	
Scholarship Meal Plans (Students not in Dorm)				
6 meals per week plus $186 Declining Balance	870	870	-	0.0%
3 meals per week plus $94 Declining Balance	435	435	-	0.0%
5 meals per week plus $384 Declining Balance	1,000	1,000	-	0.0%

Auxiliary and Other Fees

Fee	Current	Increase	Proposed	Staff Approved	Comments	Log
Grambling State University						
Nursing Practicum	0.00	300.00	300.00	6/29/2018	NUR 306K, 307K, 316K, 317K, 400K, 405K, 416K, 417K, 419K, and 420K	ULS 2019-007
Energy Surcharge	10.00	0.00	10.00	3/20/2019		ULS 2019-025
Louisiana Tech University						
Energy Surcharge	10.00	0.00	10.00	3/20/2019		ULS 2019-026
McNeese State University						
EDUC 110 & 510	0.00	133.00	133.00	5/11/2018	Via student portfolio program.	ULS 2019-004
International Health Insurance	0.00	469.00	469.00	7/18/2018		ULS 2019-011
Course Withdrawal Fee	50.00	0.00	50.00	8/15/2018		ULS 2019-016
Course Withdrawal Fee	50.00	0.00	50.00	12/17/2018	$50 per withdrawal all courses	ULS 2019-019
Sponsored International Fee	0.00	350.00	350.00	12/17/2018		ULS 2019-020
HHP 111	0.00	30.00	30.00	12/17/2018	Red Cross Certification ($10-$30 Fee)	ULS 2019-021
International Student Fee	60.00	40.00	100.00	12/17/2018		ULS 2019-022
Energy Surcharge	6.00	1.50	7.50	3/20/2019		ULS 2019-027
Nicholls State University						
OIS 200			0.00	6/29/2018	Remove Course Fee	ULS 2019-006
CULA 450	0.00	250.00	250.00	8/15/2018	Culinary Course	ULS 2019-014
Electronic Assessment Fee	80.00	12.50	92.50	8/15/2018	UNIV 101, Al entering students	ULS 2019-015
COUN 595 and 596	0.00	75.00	75.00	10/18/2018	Comprehensive Examination Fee	ULS 2019-018
Electronic Assessment Fee	92.50	-49.50	43.00	12/17/2018	All incoming students	ULS 2019-023
Energy Surcharge	5.00	-2.50	2.50	3/20/2019		ULS 2019-028
Northwestern State University						
International Student Health Insurance				6/13/2018	$1,252 full year, 504 FA, 748 Sp/Su, 305 Su	ULS 2019-005
Child Care Background Check	0.00	108.00	108.00	6/29/2018		ULS 2019-008
Lab School Tuition	1,875.00	325.00	2,200.00	1/16/2019		ULS 2019-024
Energy Surcharge	3.15	0.85	4.00	3/20/2019		ULS 2019-029
Southeastern Louisiana University						
DNC 300	0.00	55.00	55.00	6/29/2018		ULS 2019-009

Fee	Current	Increase	Proposed	Staff Approved	Comments	Log
NURS 371, 372, 471, 487	0.00	132.50	132.50	7/13/2018		ULS 2019-010
Energy Surcharge	5.00	1.50	6.50	3/20/2019		ULS 2019-030
Study Abroad Fees				4/2/2019	Various Study Abroud Programs	ULS 2019-036
University of Louisiana at Lafayette						
Energy Surcharge	7.00	1.00	8.00	3/20/2019		ULS 2019-031
Intensive English Program Tuition	1,750.00	250.00	2,000.00	4/2/2019		ULS 2019-037
ENVS 285	0.00	15.00	15.00	4/2/2019		ULS 2019-038
ENVS 310	0.00	15.00	15.00	4/2/2019		ULS 2019-039
Biology Lab Fees	25.00	0.00	25.00	4/2/2019	Biology 202, 231, 234, 305, 420, 427, 433, 434, 435, 436, 440, 443, 446, 447, 454, 458, 461, 462, 466, 484, 590Course number changes.	ULS 2019-040
University of Louisiana at Monroe						
Medical Lab Sciences	0.00	50.00	50.00	4/23/2018	MLSC 2001, 3010, 3025, 3208, 3030, 4010	ULS 2019-001
CURR 4018	0.00	25.00	25.00	4/23/2018	ETEACH materials for local school districts	ULS 2019-002
Transcript Fee - $10 and $20 for expedited service	0.00	10.00	10.00	4/23/2018		ULS 2019-003
Nursing Verification Fee	0.00	50.00	50.00	7/31/2018	Academic Partnerships	ULS 2019-012
CURR 4060	0.00	100.00	100.00	8/15/2018		ULS 2019-013
Energy Surcharge	4.00	0.00	4.00	3/20/2019		ULS 2019-032
NURSing 2009 - HESI Exam	0.00	60.00	60.00	4/2/2019		ULS 2019-034
University of New Orleans						
Certificate Fee	0.00	50.00	50.00	9/12/2018	Graduation Fee for Certificates	ULS 2019-017
Energy Surcharge	10.00	0.00	10.00	3/20/2019		ULS 2019-033
Greek Life Enhancement	0.00	15.00	15.00	4/2/2019		ULS 2019-035

Approved by the Board of Supervisors
for the University of Louisiana System
on 4/5/19
By: _____
Edwin Litolff, Vice President
for Business and Finance