BOARD OF SUPERVISORS FOR THE
UNIVERSITY OF LOUISIANA SYSTEM

ACADEMIC AND STUDENT AFFAIRS COMMITTEE

October 24, 2024

Item G.1. **Louisiana Tech University's** request for approval to offer a Master of Science in Cognitive Science.

EXECUTIVE SUMMARY

Louisiana Tech University requests approval to offer a Master of Science (MS) in Cognitive Science. In accordance with *Regents' Academic Affairs Policy 2.05*, the graduate-level proposal was reviewed by an external consultant. Dr. Sean Lane, Dean, College of Arts, Humanities and Social Sciences, The University of Alabama in Huntsville, conducted the review. Dr. Lane noted in his report that the proposed graduate program is in an area of great need. He went on to say *"The program is very well poised to have an impact. It leverages existing resources in order to create something that is unique to the State of Louisiana."*

Cognitive Science is an interdisciplinary field that examines daily human behaviors and the cognitive and neural processes that underlie them. The proposed 39-credit hour graduate program will equip students with important skills such as research design, statistics analyses, and programming, in addition to understanding core cognitive concepts. These lay a strong foundation upon which students can either further their education by pursuing a Ph.D. in a related field (e.g., Cognitive Psychology, Computational Psychology, Engineering Psychology, Human Factors, Behavioral Neuroscience, Social Neuroscience, Linguistics, Learning Sciences, Anthropology) or work in the human factors industry, specifically in the fields of Human-Computer Interaction (HCI), User Experience (Design and Research) (UX), User Interface (UI), and Ergonomics. Currently there are no master's level programs in Louisiana that allow one to specialize in the field of Cognitive Science. For students interested in working in the fields of HCI, UX, etc., the proposed program will equip them with the fundamentals of human cognitive processing and how to study it. In addition, the proposed program has a specific track for those seeking to enter industry upon graduation wherein these students will complete a practicum, gaining experiential training within a company, government agency, or other organizations.

The proposed graduate program is designed to be accessible to working students, with the majority of the curriculum offered online. The research component of the curriculum must be conducted in-person due to the nature of cognitive research. However, the proposed program has built-in flexibility to accommodate student schedules in the form of personalized mentor-mentee research training. The proposed program will leverage existing faculty within the Department of Psychology and Behavioral Sciences; one new full-time faculty member will need to be hired to support teaching and thesis needs. The MS in Cognitive Science will allow LA Tech to better retain students interested in Cognitive Science since no such program currently exists, as well as recruit those in the service area that may go elsewhere to further their education in this field of study.

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 Louisiana Tech University's request to offer a Master of Science in Cognitive Science.*

G.1.

LOUISIANA TECH UNIVERSITY

Office of the President

September 27, 2024

Dr. Jeannne O'Rourke
Provost and Vice President of Academic Affairs
University of Louisiana System
1201 N. 3rd St., Suite 7-300
Baton Rouge, LA 70802

Dear Dr. O'Rourke:

Louisiana Tech University requests approval to offer the following Graduate Certificate in the Fall Quarter of the 2025-2026 Academic Year.

CIP: 42.0101 Master of Science in Cognitive Science

We appreciate your consideration of our proposal.

Sincerely,

Dr. James B. Henderson
President

P.O. Box 3168 | Ruston, LA 71272-0001 | O: 318.257.3785 | F: 318.257.2928

LOUISIANA TECH UNIVERSITY

College of Education
& Human Sciences

MEMORANDUM

To: Donna Thomas, Ph.D., Provost

Through: Ramu Ramachandran, Ph.D., Dean of Graduate School

Through: Henrietta Pichon, Ph.D., Dean of College of Education and Human Sciences (CEHS)

From: Jane Jacob, Ph.D., Associate Dean for Academic Affairs, CEHS

Date: July 26, 2024

Subject: Amendments to M.S. Cognitive Science Proposal

Please see the revised proposal for the Master of Science in Cognitive Science program. It has been undated in response to the suggestions made by the external reviewer as well as College- and Department-level changes. The only curricular change is the specification of ECON 545 (Introduction to Data Analytics in R) as a strong recommendation for the elective course in the second Fall quarter, to address the recommendation of learning R to be better prepared for graduate school by the reviewer. This course will also be helpful for students in the Industry track. This elective recommendation was supported by Dr. William McCumber (Associate Dean for Research and Graduate Studies in the College of Business) and Dr. Ghislain Gueye (instructor of ECON 545), who are excited by the opportunity to interact with Cognitive Science M.S. students in the future.

Academic Degree Program Proposal Form

A.A. Policy 2.04: Academic Planning and Degree Program Proposals

A. Overview

Institution Name: Louisiana Tech University		Designation (flagship, statewide, regional, HBCU, 2-year): Regional		
College/School/Division: College of Education and Human Sciences		Academic Department: Psychology & Behavioral Sciences		
Degree Designation[a]: M.S.	Proposed Degree Name: Cognitive Science	CIP Code: 420101	Credit Hrs[b]: 39	Contact Hrs[c]:
Planned Implementation Semester/Term & Year: Fall 2026, contingent on new hire (in place by Fall 2025)		Was this program listed in the most recent Three-year Academic Plan? [ ] Yes [x] No		

[a] See AA Policy 2.11 Approved Academic Terms & Degree Designations

[b] If the program exceeds the standard 60 credits for associate or 120 credits for baccalaureate, you must provide justification and evidence of management board approval according to system policy.

[c] If applicable.

1. Provide a brief description and reason for the development of the proposed program, identifying its purpose and primary objectives.

Cognitive Science is an interdisciplinary field that examines daily human behaviors and the cognitive and neural processes that underlie them. A master's in cognitive science will equip students with important skills such as research design, statistical analyses, and programming, in addition to understanding core cognitive concepts. These lay a strong foundation upon which they can either pursue higher education in a related field (e.g., Cognitive Psychology, Computational Psychology, Engineering Psychology, Human Factors, Behavioral Neuroscience, Social Neuroscience, Linguistics, Learning Sciences, Anthropology) or work in the human factors industry, specifically in the fields of Human-Computer Interaction (HCI), User Experience (Design and Research) (UX), User Interface (UI), and Ergonomics.

Reason for development: Currently, there are no master's level programs that allow one to specialize in the field of Cognitive Science in Louisiana. For students interested in working in the fields of HCI, UX, etc., this program can equip them with the fundamentals of human cognitive processing and how to study it.
For students interested in graduate study in this field, this program serves as a good foundation, so that they are well prepared for higher education in the fields mentioned above. As entry to Ph.D. programs are growing increasingly competitive, the domain knowledge and research experience of graduates of this program will set them apart from other Ph.D. program applicants, enhancing their chances of acceptance. Specifically, we hope that this program will serve as a feeder for the Ph.D. program in Cognitive and Brain Sciences at LSU, thereby retaining more brilliant minds in Louisiana.

The purpose of the program will be to create graduates with the skills outlined in the previous paragraph with the following specific objectives.
1) To build a highly educated workforce with a deep understanding of Cognitive Science principles to support and lead Louisiana industry.
2) To create a terminal degree that is accessible to working college graduates
3) To create a degree that serves both those ready to enter the workforce upon graduation, as well as those looking to further their education by pursuing a PhD upon graduation.

2. Describe specialized accreditation requirements associated with the program if applicable (refer to Board of Regents A.A. Policy 2.13: Program Accreditation). If not required, describe whether the institution will seek any voluntary accreditation or certification for the program.

This program does not require accreditation.

3. Specify **SACSCOC** or other accreditation organization requirements. Mark all that apply.
   [ ] Substantive change requiring notification only
   [ ] Substantive change requiring approval prior to implementation
   [ ] Level Change
   [x] None

4. Has the program been designed to align with any Board of Regents or other statewide initiatives? Check all that apply.
   [x] MJ Foster Promise Program
   [ ] Cyber-security Initiatives
   [ ] Louisiana Transfer Pathways
   [x] Other: LA STEM

5. If this proposal is for a Master's or Doctoral program, provide a list below (name, institution, email address, brief summary of qualifications) for at least three external review candidates. Reviewers should be active or retired full time faculty member from an accredited institution; have experience developing and/or administering a program like the proposed program; and should not have direct affiliation with a Louisiana institution.

Sean Lane, Ph.D., University of Alabama in Huntsville, sean.lane@uah.edu. Dr. Lane is the Dean of the College of Arts, Humanities, and Social Sciences at UAH. Dr. Lane was a Professor in the Cognitive & Brain Sciences concentration at LSU. Prior to that, he developed a Master's-level cognitive program at UNLV.

Arlo Clark-Foos, Ph.D., Associate Professor & Psychology Discipline Coordinator at University of Michigan-Dearborn, acfoos@umich.edu. Dr. Clark-Foos received his Ph.D. in Cognitive/Experimental Psychology from UGA and has a track record of promoting research at UM-D.

Arturo Hernandez, Ph.D., Professor, University of Houston, aehernandez@uh.edu. Dr. Hernandez has experience with leading and administering the Ph.D. program in Developmental, Cognitive, and Behavioral Neuroscience at University of Houston.

B. The Master Plan and Institutional Role, Scope, and Mission

6. How does the program align with your institutional role, scope, and mission? If the program does not align, provide a compelling rationale for the institution to offer the program.

The College of Education and Human Sciences created an updated mission to better support the goals and initiatives of the Louisiana Tech 2030 vision and the current strategic plan. Adding a Cognitive Science Master's program would bring the Department of Psychology and Behavioral Sciences (PBS) and the College of Education and Human Sciences into alignment with the three-fold mission statement put forth by the college:

1. *To provide high-quality educational experiences for current and prospective professionals from baccalaureate through doctoral levels.*

Currently, Psychology and Behavioral Sciences offers master's degrees in Counseling and Guidance, and Industrial-Organizational Psychology. While the Cog Sci faculty play supporting roles in existing MA and PhD programs, they are the leaders when it comes to involving undergraduates in their research. Adding a Master's program in Cognitive Science would provide undergraduate students interested in pursuing a

graduate degree in Cognitive Science a clearer path to advanced degrees thus retaining students that would otherwise leave LA Tech and the state, as well as enrolling students from the surrounding areas.

2. *To enhance and extend the knowledge bases under-girding professional programs through research and other scholarly activities.*

The proposed program would allow the faculty to integrate their research into their teaching. Additionally, it would provide a pipeline of student-driven, faculty-mentored experimental research that is currently missing from our curriculum. This would generate opportunities not just for the students within the proposed master's program, but would also provide undergraduate students with more opportunities for research, which is essential to their growth and development.

3. *To deliver professional services to the various businesses, civic, and educational communities through collaborative endeavors.*

The world today revolves around data. Businesses strive to perform studies and complete data analyses to determine the best path forward for their products and services. Unfortunately, the business community is often unprepared to correctly and efficiently accomplish these goals. Students in the proposed program would be well poised to deliver professional services in the form of data analytics, as well as study design, programming, and implementation. Depending upon their line of research, students in this program could also provide consulting services for advertisement firms and the like. There are a number of ways to give back to the educational community. In addition to the aforementioned skills, students would be versed in at least two programming languages, which would allow them to contribute to organizations like Girls Who Code, as well as local efforts to encourage children to learn computer programming.

At all levels of study, the Department of Psychology and Behavioral Sciences and the College of Education and Human Sciences promotes critical thinking, informed by science. We are fortunate to offer graduate programs in Counseling and Industrial-Organizational psychology. However, as it stands, we currently do not offer a graduate degree in Cognitive Science, another large subfield of psychology, the theories of which contribute to both fields of Counseling and Industrial-Organizational psychology. Currently students in the surrounding areas that are interested in cognitive science lack a path forward and are often required to leave the state to pursue their career paths. The proposed program would allow these students to pursue their graduate education in LA Tech and provide enough depth and breadth in understanding of Cognitive Science, which would prepare students to enter into a Doctorate program or go directly into industry. Additionally, the proposed program would allow collaborative engagements across the three graduate programs, with Cognitive Science as the connection between Counseling and I/O psychology.

7. How does the program align with your institution's strategic plan and academic program portfolio?

The addition of a Cognitive Science M.S. program would enhance our academic portfolio, as there is no program like it in the UL system or the state more broadly. LA Tech's strategic plan is centered around three themes. As outlined below, the proposed program is in line with Tech's plan and will bring us closer to the goals within these themes as follows:

Theme 1: Cultivate Learners, Leaders, and Mentors for Academic and Professional Excellence
The university's top priority is the development of human potential through supporting the learning goals of our students and the professional goals of our faculty and staff. The addition of a Cognitive Science M.S. program would support current student and faculty goals, along with serving as an attractive program for new students and faculty to be part of. A program of this nature would help retain current undergraduates who are interested in pursuing Cognitive Science, but are forced to go elsewhere due to the lack of a master's program of this type in the state. Additionally, it has the potential to serve as a recruiting tool, as the skills learned within a Cognitive Science program are some of the most sought-after skills in industry today.

To that end, LA Tech endeavors to ensure that our students graduate with the skills for success today and the capability to learn and grow throughout their lifetimes. A Master's degree in Cognitive Science can equip our students to do just that. Cognitively focused careers in User Experience, Human Factors, and Experimental/Engineering Psychology are expected to increase faster than average within the next ten years. Companies such as Google, Amazon, Apple, and any number of social media companies (among others) are actively recruiting people with skills and credentials in Cognitive Sciences. All branches of the military, in particular, as well as NASA, NSA, and other government branches are doing so, too. There is an untapped potential within the PBS department such that the faculty are well-poised to develop and instill these transferable skills in masters-level students that would serve them in their immediate and future careers.

The last piece of Theme 1 specifies that LA Tech is committed to a work environment for faculty and staff that enables their professional development and career success. A master's program in Cognitive Science would serve the cognitively oriented PBS faculty well. Currently, PBS has graduate programs in Counseling and I/O psychology, affording those faculty in these specialty areas with the privilege of teaching and researching within their field. Our Cognitive Science faculty do not have this opportunity, but would flourish provided with the professional and academic support that a graduate program brings. Namely, a Cognitive Science M.S. program would allow the Cognitive faculty to more easily conduct cutting-edge research, which is currently limited due to a lack of graduate-level student mentorship and support. In doing so, this would advance the university and the PBS department, would foster trans-disciplinary collaborations across campus, and improve the opportunities available for undergraduates to get involved in research.

Theme 2: Catalyze Innovation and Discovery to Address Local and Global Challenges
In order for research, scholarship, and academics in psychology at Louisiana Tech to continue to engage faculty, students, and external partners, the department's focus needs to remain relevant. Cognitive Science is a fast-growing field of psychology, integrating all aspects of psychology with fields as far ranging as engineering and computer science. Therefore, a masters-level program in this field would allow for greater collaborations with various branches of campus and elsewhere allowing for greater and faster innovation to the world's issues where technology and human factors come into play.

In doing so, this would foster relationships with external partners and funding agencies, such as major tech companies, the military, and other branches of government. A program such as this would also have the potential to leverage these partnerships so that the local community benefits from our students' training as well.

The last key piece of Theme 2 is to prioritize and invest in Tech's students, faculty, and leading-edge technology. A Cognitive Science M.S. program would afford the backbone for which PBS, the College of Education and Human Sciences, and the university could build their experimental psychological research program. This type of program would be ideal as a retention and recruitment tool in that it would allow for efficient and effective training in commonly used, high-demand technologies such as eye-tracking and EEG.

Theme 3: Advance a model 21st-century campus enabling an unparalleled learning experience
The proposed program provides flexible, quality learning that takes advantage of our physical resources while respecting that our students will come from a variety of backgrounds that will require flexible learning. The Cognitive Science M.S. program would be a hybrid of online courses and in-person mentorship and research. It has been designed with the faculty-student mentorship model in mind such that students will have access to faculty and resources regularly, even when taking courses online. Additionally, we have crafted a curriculum that will foster cohort collaboration and collaboration in other areas on campus through quarterly events that focus on professional development as well as collegiality among students and faculty.

8. How does the program align with the priorities outlined in the Board of Regents Master Plan for Higher Education? Provide brief descriptions for each. Additional details will be required later in the proposal.
   - Accessibility (mode of delivery, alternate course scheduling)

The proposed program is designed to be accessible to working students, with the majority of the curriculum offered online. The research component of the curriculum must be conducted in-person due to the nature of cognitive research. However, the proposed program has built-in flexibility to accommodate student schedules in the form of personalized mentor-mentee research training.

   - Affordability (use of OER, transfer agreements, prior learning assessment, employer funded)

To keep costs of the proposed program low, OER will be used whenever possible. Additionally, credits may be transferred from comparable courses and institutions. We intend to ask for two assistantships to better recruit under-served populations that may otherwise not apply. Additionally, employer-funded as well as scholarship- and grant-funded training would be encouraged. Finally, competitive Graduate Research Assistantships will provide support to a small number of students in the program.

   - Partnerships (with industry, community-based organizations, other institutions)

For those seeking to enter industry upon graduation, the proposed program has a specific track wherein these students will complete a practicum, gaining experiential training within a company, government agency, or other organization.

   - Work-based learning (paid or experiential internships, apprenticeships, etc.)

It is possible that those students who follow an industry path will complete a paid (or unpaid), work-based practicum.

   - Other program attributes that contribute to closing the achievement gap with underserved populations including low income, minority, and adult learners.

This program offers many core courses in online format and/or in-person in the evenings. This decision was made specifically to support low income, minority, and adult learners who may be working during the day. Many courses in the program will have Open Education Resource materials instead of high-priced textbooks that will be free or of low cost to students, particularly to support low-income learners.

C. Need

9. How does the program align with relevant local, regional, and/or state workforce strategies and future societal educational needs?

The need for psychologists with strong statistics and computational backgrounds is increasing. For example, according to the department of labor, there will be an increased need for psychologists (2%), social scientists (3%), and statisticians (35.5%) within the next 10 years across the country, particularly in the areas of User Experience and Human Factors research. The curriculum of the proposed program provides the skills needed to excel in these types of careers, providing an emphasis on research methods, design, and analyses. Source

10. Summarize faculty engagement with alumni, community representatives, employers, Regional Economic Development Organizations (REDO) or other external stakeholders, and explain how those conversations shaped the design and curriculum of this proposed degree.

We have spoken with several members of industry that work within Human Factors, as UX researchers, and as engineering psychologists. In addition to the standard development of critical thinking skills through more conventional Cognitive Science courses, each member highlighted the importance of a strong statistical background and a background in a computer programming language, such as Python or MATLAB. The proposed curriculum reflects this with statistics and methods courses, as well as a required programming language course (and another as an encouraged elective).

11. What is the program's service area (local, regional, state, national)? If outside of the institution's traditional service area, provide a rationale.

The goal of the proposed program is to serve mostly our state and region. In the committee's experience, we have many students in the area that are interested in pursuing post-secondary education in Cognitive Science, but are unable to because of a multitude of financial and familial reasons. As a result, we have many students entering, half-heartedly, into other available master's programs resulting in a flooded market (for instance, Counseling MAs). This program would alleviate that issue, capture the population who is able to leave the state, as well as heavily recruit from our surrounding states. It would be the only program like this in the state and one of a few in the region. Thus, this program would better prepare our students and the state of Louisiana for the shifting academic and industry skills needed to successfully pursue their career goals.

12. Provide evidence of demand for the program in this service area (e.g. prospective student interest survey data, community needs, letters of support from community groups or employers).

This program will be the first in the State of Louisiana to provide a master's program that is dedicated to the study of Cognitive Science. It is designed to be specific enough for an individual to master human cognitive research design and analysis; and its interdisciplinary nature allows one to apply this knowledge to a variety of fields (mentioned in section 1). Other related master's programs in the state provide limited instruction in these domains.

The only other program in the state with similar content is the Ph.D. program in Cognitive and Brain sciences at LSU, which may be unnecessary for those looking to enter industry. Additionally, for those that do want to pursue doctoral-level education, the proposed program will make them a more attractive candidate to programs like those at LSU. Doctoral programs admissions are very competitive and often prefer applicants with experience over those fresh from an undergraduate program. The proposed program aims to enhance students' chances of getting in through provision of thorough education in fundamentals of research design, statistics, analytical thinking, and core cognitive concepts. Below are doctoral program acceptance rates by related discipline:
Cognitive Psychology: 11%
Experimental Psychology: 18%
Applied Psychology: 25%
(https://www.apa.org/education-career/grad/survey-data/graduate-education-data-tools)

13. What is the employment outlook for occupations related to the program?
    You may find this information using the following information sources among others:
    a. EMSI's Program Overview Report (check with your Office of Academic Affairs for access)
    b. Louisiana Workforce Commission
    c. US Department of Labor Projections Managing Partnership
    d. The NCES CIP to SOC crosswalk.

If data for the program's service area is not available, then use state- or national-level data and indicate below.

[ ] Service Area Data [ ] State Data [X] National Data

Related Occupation	LWC Star Rating	Current Employment [2020]	Projected Employment [2030]	# Change	% Change	Average Annual Openings	Average Salary
Software Developers & Software Quality Assurance Analysts & Testers*	5	1,847,900	2,257,400	409,500	22.2	189,200	$123,593
Statisticians	5	42,000	56,900	14,900	35.5	5,000	$95,570
Training & Development Specialists	4	328,700	364,200	35,500	10.8	35,200	$61,570
Psychologists (non-clinicians)	n/a	55,200	56,300	1,100	2	3,700	$102,900
Social Scientists	n/a	39,900	41,100	1,200	3	3,700	$84,430

* Note that UX and Human Factors researchers fall under the category of "Software Developers and Software Quality Assurance Analysts and Testers" and are not listed as independent careers in the US Department of Labor Projections Managing Partnership.

14. List other institutions within the service area that offer the same or similar programs and include the number of graduates from within the last year. This information is available through IPEDS, EMSI's Program Overview Report and BOR Searchable CRIN.

Institution	Program (degree and title)	No. Graduates in past year (2021-2022)
LA Tech	MA: Industrial & Organizational Psychology	17
LSU*	MA: Psychology	18
McNeese State University	MA: General/Experimental Psychology	28
Southeastern Louisiana University	MA: Psychology	10
ULL	MS: Psychology	11
ULM	MS: Psychology	72
UNO	MS: Applied Psychology	12

* Note that LSU does not have a terminal MA. Instead, those within the PhD program earn a MA along the way.

15. Based on the data provided in questions 13 and 14, discuss how this program will help address a need or gap in the labor market, or provide education to further the public good.

Of all the programs mentioned above, none have a concentration in Cognitive Science. As such, the proposed program will help fill a gap in the education offered to Louisiana learners, which in turn helps supply the growing need for a workforce educated in Cognitive Science.

16. What impact will the proposed program have on similar or related programs at your institution?

There are no similar programs at Tech. We have Masters programs in I/O and Counseling and Guidance. . Currently, our students interested in Cognitive Science leave the university to further their education elsewhere. This program would allow us to better retain students that are interested in Cognitive Science, as well as recruit those in the service area that may go elsewhere to further their education.

Additionally, this program will increase enrollment in core courses in statistical analysis, research design, and learning and motivation, shared across the I/O and Counseling psychology M.A. programs.

17. Using data from the US Department of Labor O*-Net and/or EMSI's Program Overview Report identify at least three technical skills and three Knowledge, Skills, and Abilities (KSAs) as identified in O*-Net/EMSI associated with the related occupations.

Occupation*	Occupation-specific skills & KSAs
UX Researcher (Interface Design) & Human Factors	**Tech Skill: Analytical/Scientific Software**
UX Researcher (Interface Design)	**Tech Skill: Data mining software**

UX Researcher (Interface Design) & Human Factors	**Tech Skill: Excel**
Human Factors	**Knowledge: Psychology (cognitive and research methods)**
Human Factors	**Skills: Complex problem solving**
Human Factors	**Abilities: Deductive & Inductive reasoning**

*Please note that many of the related fields that one can pursue a career in with a Cognitive Science degree are relatively new. As such, some of the careers that one could pursue are not reflected in the offerings listed on O-Net. However, the careers listed on O-Net have significant overlap with these careers.

D. Curriculum

18. List at least three programmatic student learning outcomes (what students will know and be able to do). Describe how and when outcomes will be assessed.

(1) Learn the fundamentals of Cognition and how it contributes to human behavior.
Coursework in Cognitive Psychology, Learning and Motivation, Sensation and Perception, Judgment and Decision making, and Memory will provide students with a foundation in human cognition. Assessments and other course activities (discussions, papers, etc.) will serve to assess mastery of the topics.

(2) Learn the fundamentals of measuring cognition/conducting research on cognitive behaviors.
The coursework listed above will provide knowledge of seminal studies that shaped cognitive behavioral research. Additionally, students will also be taking coursework in advanced research design and statistical methods where they will learn and be tested on research methods for behavioral science and quantitative methodology.

(3) Obtain field-relevant experience.
Thesis hours will provide students with hands-on experience with experimental design, participant recruitment, data collection and analysis, and presenting research findings. This experiential knowledge is invaluable for industry-bound students, and also for those preparing for a Ph.D. program.
Each student will complete at least one quarter working on their thesis. After this point, students who wish to pursue higher study in a Ph.D. program will take the research track with two additional thesis courses, providing further opportunity to hone their research skills; this preparation is highly valued in Ph.D. program applicants. Students in the industry track (those planning to enter the job market with this degree) will take two practicum courses during which they will pursue industry-specific certifications and internship opportunities in the UX/HCI field.

19. The National Association of Colleges and Employers (NACE) provides the list of career ready competencies included in the table below. How do the student learning outcomes for the proposed program align with these career competencies? You may also list your institution's alternate career-based competencies if applicable.

Career Ready Competencies (NACE)	Student Learning Outcomes* Note: Sample behaviors from NACE that correspond to each competency along with the curricular areas that are expected to yield them are included under learning outcomes to illustrate alignment of outcomes to competencies.

Critical Thinking/Problem Solving	**Learning outcome focus: (1) Learn the fundamentals of Cognition and how it contributes to human behavior.** Students will gain experience in making decisions and solve problems using sound, inclusive reasoning and judgment in the following courses: • PSYC 541 (Research and Statistical Methods) • PSYC 542 (Stat. methods: Behavioral Sciences) • PSYC 599 (Master's thesis) Students will gain experience accurately summarizing and interpreting data with an awareness of personal biases in the following courses: • PSYC 541 • PSYC 542 • PSYC 599 Students will proactively anticipate needs and prioritize action steps in the following course: • PSYC 550 (UX Research seminar) • PSYC 581 (Python programming) • PSYC 599 Students will gain experience in effectively communicating actions and rationale, recognizing the diverse perspectives and lived experiences of stakeholders in the following courses: • PSYC 502 (Cognitive Psychology) • PSYC 507 (Learning and Motivation) • PSYC 550
Oral/Written Communications	**Learning outcome foci:** **(1) Learn the fundamentals of Cognition and how it contributes to human behavior.** **(2) Learn the fundamentals of measuring cognition/conducting research on cognitive behaviors.** **(3) Obtain field-relevant experience.** Students will gain experience in clear and organized communication to facilitate effective understanding for others in the following courses: • PSYC 541 • PSYC 542 • PSYC 550 • PSYC 599 • PSYC 520 (Behavioral Neuroscience) Students will gain experience in employing active listening, persuasion, and influencing skills in the following course: • PSYC 550 Students will gain experience in asking appropriate questions for specific information from supervisors, specialists, and others in the following courses: • PSYC 550 • PSYC 598 (Practicum) • PSYC 599

Teamwork/ Collaboration	Students will gain experience in listening carefully to others, taking time to understand and ask appropriate questions without interrupting in the following course: • PSYC 550 • PSYC 582 Students will gain experience (a) in building strong, positive working relationships with supervisors in the following course, and (b) in accountability for individual and/or team responsibilities and deliverables in the following courses: • PSYC 598 • PSYC 599 Students will be able to exercise the ability to compromise and be agile in the following course: • PSYC 550 Students will gain experience in collaborating with others to achieve common goals in the following courses: • PSYC 550 • PSYC 598 • PSYC 599
Digital Technology	**Learning outcome foci:** **(2) Learn the fundamentals of measuring cognition/conducting research on cognitive behaviors.** **(3) Obtain field-relevant experience** Students will gain experience in (a) identifying appropriate technology for completing specific tasks in the following courses, (b) manipulating information, construct ideas, and use technology to achieve strategic goals, and (c) quickly adapting to new or unfamiliar technologies in the following courses: • PSYC 550 • PSYC 598 • PSYC 599
Leadership	**Learning outcome foci:** **(1) Learn the fundamentals of Cognition and how it contributes to human behavior.** **(2) Learn the fundamentals of measuring cognition/conducting research on cognitive behaviors.** Students will gain experience in (a) inspiring, persuading, and motivating self and others under a shared vision, (b) seeking out and leveraging diverse resources and feedback from others to inform direction, (c) using innovative thinking to go beyond traditional methods, and (d) planning, initiating, managing, completing, and evaluating projects in the following courses: • PSYC 550 • PSYC 598 • PSYC 599

Professionalism/ Work Ethic	**Learning outcome focus: (3) Obtain field-relevant experience.** Students will gain experience in (a) being present and prepared, (b) prioritizing and completing tasks to accomplish organizational goals, (c) attending to detail, (d) reducing errors in their work/learning, (e) showing a high level of dedication toward doing a good job, and (f) demonstrating dependability (e.g., report consistently for work or meetings) in the following courses: • PSYC 598 • PSYC 599 • Additionally, the program's quarterly Journal Club will be a great opportunity to have early access to these experiences, and also receive corrective feedback.
Career Management	**Learning outcome focus: (3) Obtain field-relevant experience.** Students will gain experience in (a) identifying areas for continual growth while pursuing and applying feedback, (b) displaying curiosity, (c) seeking out opportunities to learn and embracing development opportunities, (d) participating in further education, training, or other events to support one's career in the program's quarterly Journal Club and across all parts of the curriculum. Students will gain experience in establishing, maintaining, and/or leveraging relationships with people who can help one professionally in the following course: • PSYC 598 • Additionally, conferences provide great opportunities to network with other researchers in the field, providing those in the academic track with the above experiences outside of a practicum. Students will also gain experience in demonstrating flexibility by adapting to diverse environments in the following course: • PSYC 598
Equity and Global/Intercultural Fluency	**Learning outcome focus: (3) Obtain field-relevant experience.** Students will gain experience in soliciting and using feedback from multiple cultural perspectives to make inclusive and equity-minded decisions in the following courses: • PSYC 550 • PSYC 598 Students will learn ways to contribute to inclusive and equitable practices that influence individual and systemic change in the following course: • PSYC 550 Students will gain experience in keeping an open mind to diverse ideas and new ways of thinking in the program's quarterly Journal Club and across all parts of the curriculum.
Other (list others)	

*Student-learning-outcomes source: National Association of Colleges and Employers (NACE)

20. List the specific technical skills and KSAs identified in question 17 and show how they relate to the program's student learning outcomes. Insert additional rows as needed.

Technical Skills and KSAs	Student Learning Outcome (s)

Tech Skill: Analytical/Scientific Software	**(2) Learn the fundamentals of measuring cognition/conducting research on cognitive behaviors.** A large portion of Cognitive research relies on knowledge and comfort with software - to program experiments and to analyze the data. Working with faculty members on their research projects, thesis, and (for Industry-track members,) practicum will provide opportunities to learn and apply software to research problems. Students will also learn how to use analytical software in their statistical analysis and research design courses (PSYC 541, 542).
Tech Skill: Data mining software	**(1) Learn data mining software.** **(3) Obtain field-relevant experience.** Learning the basics of data mining software through Google Certificates in Data analytics.
Tech Skill: Excel	**(3) Obtain field-relevant experience.** Excel is a common tool in data sorting, calculation, and analysis. When working with faculty and industry partners on research projects, students will build their skills in Excel.
Knowledge: Psychology (cognitive and research methods)	**(1) Learn the fundamentals of Cognition and how it contributes to human behavior.** **(2) Learn the fundamentals of measuring cognition/conducting research on cognitive behaviors.** As students learn the fundamental principles of Cognition across the curriculum, they will also learn the research methods deployed across historical and current research studies.
Skills: Complex problem solving	**(2) Learn the fundamentals of measuring cognition/conducting research on cognitive behaviors.** **(3) Obtain field-relevant experience.** Problem solving is at the heart of Cognitive Science. Every opportunity to explore more of the cognitive process underlying a behavior results in problem solving - particularly, learning and executing appropriate methods to test theory-driven hypotheses. From their first research projects, to each course in the curriculum, to defending their master's thesis, students will have much exposure to complex problem solving and instruction in problem-appropriate research methods.
Abilities: Deductive & Inductive reasoning	**(1) Learn the fundamentals of Cognition and how it contributes to human behavior.** **(2) Learn the fundamentals of measuring cognition/conducting research on cognitive behaviors.** **(3) Obtain field-relevant experience.** As mentioned above, students will engage in problem solving using appropriate research design and analytical methods. They will also learn and have opportunities to exercise deductive and inductive reasoning in their research, courses, practica, and journal club meetings.

21. The American Association of Colleges & Universities identifies a list of high impact educational teaching and learning practices (HIPs) listed below (see https://www.aacu.org/trending-topics/high-impact). Briefly describe how the program will utilize those HIPs that are applicable, including whether it is optional or required.

AACU HIPs	
First Year Experience	**N/A as this is a graduate program and FYE is usually targeted towards first year undergraduates.**
Undergraduate Research	**There are opportunities for mentored undergraduate research, under the supervision and guidance of PIs and master's students.**
Common Intellectual Experiences	**All students will be given a foundation in Cognitive Science topics through courses such as statistical analysis and research design (PSYC 541, 542), learning & motivation (PSYC 507), Cognitive Psychology (PSYC 502), sensation and perception (PSYC 504), Behavioral Neuroscience (PSYC 520), and memory & forgetting (PSYC 581).** **All students will also take at least 1 course where they will propose, conduct, and defend a research study (PSYC 599 - Thesis). Students in the Academic track will have this course for multiple quarters as they engage in more complex, prolonged research studies.** **Students in the Industry track will develop field-specific knowledge in courses such as UX Research Seminar (PSYC 550), Intro to Cognitive Systems Engineering (INEN 557), and practicum (PSYC 598).**
Diversity/Global Learning	
Learning Communities	**Quarterly Journal Club meetings will foster friendships and learning-community establishment among students. This will also serve as another mode of interaction with faculty members.**
ePortfolios	
Writing-Intensive Courses	**PSYC 520 (Behavioral Neuroscience), PSYC 582 (Memory & Forgetting), and PSYC 599 (Thesis) will provide students with several opportunities to reproduce understanding of concepts, integrate different ideas to form new ones, practice and exhibit critical thinking and problem-solving skills in written format.**
Service-Learning, Community-based Learning	**Quarterly Journal Club meetings serve an important role in learning, communication of ideas and current research, and network as a small Cognitive-Science community at LA Tech.** **Furthermore, PSYC 598 (Practicum) will serve as a great service-learning opportunity to apply Cognitive Science principles and research skills to real-world problem solving in the community.**

Collaborative Assignments & Projects	**Students taking PSYC 598 (Practicum) will be working on industry projects, liaising with clients and supervisors, and working on a UX/HCI team.** **Additionally, students in PSYC 599 will be working on their own research projects under the guidance of a research advisor.**
Internships	**Students who would like to take the Industry track will take PSYC 598 during their last 2 quarters. This course and time is designated for internships.**
Capstone Courses and Projects	**The master's thesis in PSYC 599 will serve as a great capstone project for each student.**

22. Attach a map of the curriculum by semester for a full-time student enrolled in at least 15 units per semester. This may be structured like a program of study in the general catalog or on a curriculum guide.
    - Include course prefixes, numbers, titles, and credit hour requirements. Identify courses that meet general education requirements.
    - Include alternate tracks and requirements by concentration if applicable. Identify courses that are applicable to the alternative tracks.
    - List all major course requirements. Indicate the word "new" beside new courses.
    - Indicate work-based learning experiences (such as internships, clinicals etc.) if applicable.
    - Provide a summary of how the curriculum meets the learning outcome goals described in questions 18-21.

	FALL	Winter	Spring	Summer
Year 1	PSYC 541: Research and Statistical Methods PSYC 502: Cognitive Psychology	PSYC 520: Behavioral Neuroscience [New] PSYC 504: Sensation and Perception [New]	PSYC 542: Stat methods: Behavioral Sciences PSYC 507: Learning and Motivation	PSYC 581: Python programming for Psychology [New] PSYC 550: UX Research Seminar [New]
Year 2	PSYC 599: Thesis Elective (ECON 545: Introduction to Data Analytics in R, strongly recommended)	For Industry track: PSYC 598 (Practicum) [New] INEN 557 (Intro to Cognitive Systems Engineering) --- For Academic track: PSYC 599: Thesis Elective	All: PSYC 582: Memory & Forgetting [New] --- For Industry track: PSYC 598 (Practicum) --- For Academic track: PSYC 599: Thesis	

23. Check all proposed program modes of delivery that apply:
    [x] On campus (<50% online)
    [x] Hybrid (51-99% online)
    [ ] 100% online

24. Describe how students will have the opportunity to receive credit for prior learning in the program's curriculum. (see Board of Regents Policy AA 2.23)

Credit awarded for courses identified on the Master Course Articulation Matrix via prior learning assessment – both standardized and non-standardized – will be accepted by LA Tech according to course equivalencies on the Matrix. Courses not on the matrix may be accepted if they are relevant to the degree.

25. Describe how Open Education Resources (OER) have been incorporated into the program's instructional materials. Identify other measures the institution will take to ensure course material affordability.

OERs will be used whenever possible as instructional materials. Additionally, the courses are designed to take advantage of peer-reviewed articles that are freely available through the library.

26. What, if any, special preparation will students need for admission to the program? This may include prerequisite courses or degrees, program-specific selective admission criteria or eligibility, or work experience

All applicants must have at least a 3.0 GPA and must have taken a basic Statistics course, a basic Psychology course, and a course in Cognition (or Cognitive Psychology) in order to apply. Ideal applicants to this program would have a degree in Psychology. Computer science, Linguistics, Philosophy, and other related majors are welcome to apply.

27. Identify the partners you are working with to create an educational and career pipeline for this program. Mark all that apply.

[ ] High school CTAE
[ ] High school STEM
[ ] Career academies
[ ] 2-year college
[X] 4-year college/university
[X] Employers
[ ] Community organizations
[ ] Professional associations
[ ] Other Programs at your Institution
[ ] Other Partner

List specific partners for each category checked above.

4-year college/university: LSU Employers: Naval Research Laboratory (Stennis, MS & Washington D.C.)

28. Describe how the education pipeline for the program will function. Include any stackable or transferrable credentialing that is involved.

Undergraduate students nearing the completion of their Baccalaureate degree can apply for concurrent enrollment into this program. This will attract and encourage students in the Psychology B.A. program, and others who meet the requirements to apply before their TOPS funding runs out.
Additionally, being that this program is the only Cognitive Science master's program in Louisiana, it is very likely to attract students across Louisiana and neighboring states to specialize in this topic in order to prepare for industry or higher education.

29. Describe how the institution will support graduates in meeting career goals such as securing employment, further education, and industry certification.

LA Tech and PBS will use its network of business partners (like those at Tech Pointe) to help students secure employment. Ideally, upon graduation, our industry-focused students will be able to step into full-time employment within the business in which they completed their practicum. For those looking to continue on to a related PhD program, there is a working relationship with LSU and their Cognitive & Brain Sciences PhD program. For both the industry- and academic- tracks, students will gain valuable industry certifications through courses designed around platforms such as Coursera and Google Career Certificates. Students supported with Graduate Research Assistantships will have opportunities to develop publication, presentation, and/or grant experience before completing the program.

30. Describe how the success of program graduates will be tracked and assessed? Success may include employment, enrollment in another degree program, or certification/licensure passage.

Success will be measured by rates of employment in a relevant industry (for those on the Industry track) and by enrollment in a Cognitive Science (or related field) Ph.D. program (for those on the Academic track).

E. Students

31. Describe the institution's process for determining prospective and current student interest in the program. This may include enrollment in existing courses, minors, or concentrations, student surveys, admissions inquiries.

Current student interest was determined through interactions with the undergraduates who are currently seeking out graduate programs. Many have been interested in such a program but have been unable to attend a Cognitive Science master's program, as there is not one in the state. For prospective students, we looked to the projections of related careers and skills needed to pursue these careers in the future. Without these types of programs, Louisiana residents will be unable to further their education and make needed career shifts as technology and occupational demand shifts.

32. Provide current institutional and department/college overall retention and graduation rates.

Louisiana Tech's overall graduation rate is 58%.
In AY 23-24, the graduate masters retention rate from Summer to Fall was 88.6%, Fall to Winter was 88.1%, Winter to Spring was 88.3%, and Spring 2024 to Fall 2024 was 81%.

In AY 23-24, the College of Education and Human Sciences's (CEHS) retention rate from Fall to Winter was 88.1%, Winter to Spring was 90%, and Spring 2024 to Fall 2024 was 95.2%.

In AY 23-24, PBS's Master's programs had 18 graduates, and CEHS had 47 graduates.

PBS' Master's in I/O Psychology has a graduation rate of 85% (total graduates of fall 2021/total enrollment of fall 2021), the retention rate is 83% (Total enrollment of fall 2021/fall 2020)

PBS' Master's in Counseling & Guidance (MACG) has a graduation rate of 45% and a retention rate of 96%.*

*Please note that the MACG program has closed its Clinical Mental Health track. As a result, the graduation and retention rates may not reflect the broader PBS department and its graduate programs. A new concentration in Counseling Psychology was started in AY 23-24 and students will be graduating at the end of AY 24-25, therefore graduation rates are not available yet for that program.

33. Provide an enrollment projection for the next four academic years.

	Year 1	Year 2	Year 3	Year 4
Academic Year (Summer, Fall, Spring)	2026-27	2027-28	2028-29	2029-30
Base enrollment*		12	12	12
Lost to Attrition (should be negative)		-2	-2	-2
New to the institution	6	6	6	6
Shifted from existing programs within your institution	6	6	6	6
Total Enrollment	**12**	**22**	**22**	**22**
Graduates	0	10	10	10
Carry forward base enrollment for next year	12	12	12	12

*Carry forward base enrollment becomes the base enrollment for the following year

34. If projected retention and graduation rates are significantly different than for the institution overall, please explain.

Projected retention and graduation rates are not significantly different for the institution overall.

35. Discuss the marketing and recruitment plan for the program. Include how the program will be marketed to adult learners and underrepresented and special populations of students.

The proposed program is a hybrid, with the classes taken in the first year being offered entirely online. This is to appeal to students who are returning learners, as well as those students who work during the day. Students who are seeking out this program as a way to increase their technical research skills in preparation for graduate school will be encouraged to be in Ruston during both years of their degree, in order to gain access to research lab spaces and build a research portfolio in time for Ph.D. program applications. Early engagement in active research will also support any student's plans to write research grants. The hybrid model allows students to choose how they interact with the program to get what they want out of it. We will also be directly marketing towards students who are traditionally underrepresented in Cognitive Science, namely women and ethnic minorities. We will do so through advertising in various women and minority-oriented affiliations with major Cognitive Science and Psychology-related organizations such as Psychonomic Society, Vision Science Society, American Psychological Association, and the Association for Psychological Science. Furthermore, to attract underrepresented populations within Louisiana, it is possible that we can advertise through partnerships with HBCUs, like Grambling University, that do not have a Cognitive Science master's program in place.

F. RESOURCES

F1. Finance

36. Attach the completed Regents budget template

37. How has student affordability been considered in the design of the program? Are there any additional financial costs that students will have to take on as part of this program? (e.g. special fees, software licenses, equipment, travel, etc.) If so, what strategies have you adopted to offset the cost burden?

No special fees, software licenses, equipment purchases, travel costs, etc. will be imposed on students. As much as possible, online textbooks (far less expensive than hard-copy versions) will be used in the required courses. In addition, pdf files of required readings (e.g., journal articles) will be made available to students at no cost.

$5000 has been included in the budget (from year 2 onwards) to support students traveling to academic conferences to present their research. This will help them build their research portfolio and increase their chances of success in future academic and industry endeavors. Students will be encouraged to pursue grant opportunities to support their research and tuition.

38. How will the institution cover increased indirect costs associated with the proposed program? Consider costs such as student advising, student support services, tutoring, career services, additional library materials, and replacing or upgrading technology or other infrastructure.

We expect to hire one new faculty member to support advising and teaching students in the Cognitive Science program. To support program administration, student and faculty research and grant productivity, and the attractiveness/affordability of the program to high-quality students, we aim to add two 20-hour/week Graduate Research Assistantships to Psychology and Behavioral Sciences on an ongoing basis.

39. If existing funds are being reallocated, describe the impact on existing programs and the plan to mitigate these impacts.

The new faculty member will require salary funds to be allocated to them, and funds may be needed to help them start their work (e.g., they may request GA support from the department).

F2. Instruction and Student Support

40. Faculty

a. Describe the needs for new/additional faculty for the program including program leadership? Identify any anticipated challenges in hiring adequate faculty, for the program.

The program would benefit from a new full-time faculty member to support teaching and thesis support needs. Adjunct faculty may be needed to teach specialty courses, including from outside Louisiana.

b. How will current faculty be redirected to this program from existing programs?

Three existing professors within the department will serve as the core faculty for the new M.S. in Cognitive Science. The new faculty member will also be invited to join the core faculty for this program.

c. Attach your SACSCOC Faculty Roster for the proposed program. (Please indicate anticipated positions that will need to be filled in the future)

41. Describe additional staff needed for this program (e.g. advising, professional development, program administration, academic coaching, etc.).

The current faculty have been strongly supporting the needs of the college and department. As a result, we will need adjunct faculty for some courses, and one new faculty member to support administration, advising, and thesis support.

F3. Facilities

42. Where will the program be offered? Mark all that apply.

[X] Main Campus [ ] Satellite campus (specify campus here) [ ] Other (specify here) [ ]100% Online

43. What types of facilities are needed for the program? Fill out the chart below as applicable. Add lines under "other" as needed.

Space	New Space	Use Existing Space (as is)	Use Existing Space (Renovated)	Sem/Yr. of Occupancy
Dry Labs (STEM related)		X		
Wet Labs (STEM related)				
Dedicated Offices		X		
Fine Arts Spaces				
Classrooms		X		
Meeting Rooms		X		
Student Study Space		X		
Shared Space with other campus units				
Other (Specify)				

44. Describe needs and costs for new or renovated facilities required for the program. Capital Costs for Needed Facilities and Space.

Facility/Space Name	Gross Square Footage	Start Up Costs	Ongoing Costs	Est. Occupancy Date	Funding Source

New Construction					
Renovations and Infrastructure*					
none					
Purchases: Land, Buildings etc.					
Lease space					
none					
TOTAL Cost		**$0**	**$0**		

*Include the name of the building or location being impacted and what will need to be done. Infrastructure includes new systems such as: mechanical/electrical/plumbing, site utilizes, parking/drainage, IT networks, resiliency infrastructure, etc.

45. Discuss the impact of construction or renovation on existing campus activities and how disruptions will be mitigated. Explain how existing programs benefit from new facilities and/or space(s) and changes to existing space.

Nonapplicable.

46. Will any existing programs be negatively impacted (e.g. lose classroom or office space) by proposed facility changes? If so, discuss how the impacts of these changes will be mitigated.

Nonapplicable.

47. Are there facility needs related to accreditation? Are there any accreditation standards or guidelines that will impact facilities/space needs now or in the future? If so, please describe the projected impact.

Nonapplicable.

F4. Technology and Equipment

48. Identify any major equipment or technology integral to program implementation and sustainability. List equipment or assets over $5,000 (cumulative per asset) needed to start-up and run the program.

Technology and Equipment	Start-up Costs	On-going Costs	Est. Start Date of Operations/Use
No new technology or equipment is expected to be needed for the proposed program.			

Total Technology and Equipment Costs	**0**	**0**	

G. RISKS AND ASSUMPTIONS

49. In the table below, list any risks to the program's implementation over the next four years. For each risk, identify the impact (low, medium, high), probability of occurrence (low, medium, high), and the institution's mitigation strategy for each risk. Insert additional rows as needed. (e.g. Are faculty available for the cost and time frame).

Risk	Impact	Probability	Risk Mitigation Strategy
The implemented program might terminate due to faculty attrition.	**Current students would not be able to complete the program, thus negatively affecting their careers, and future students would miss out on enrolling in a course of study that is at the cutting edge.**	**Given the commitment, experience, and competence of the core faculty, the department, and the college, the likelihood of the program terminating is low.**	**The core faculty, department, and college are committed to the M.S. program in Cognitive Science. We realize it is a program that can produce students who are highly employable or will be well prepared for doctoral study in Cognitive Science or related areas.**

SUMMARY OF ESTIMATED ADDITIONAL COSTS/INCOME FOR PROPOSED PROGRAM

Institution:_Louisiana Tech University_____ Date: _10/3/2024_____

Degree Program, Unit: _M.S. in Cognitive Science, Psychology & Behavioral Sciences_____

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

EXPENDITURES								
INDICATE ACADEMIC YEAR:	**FIRST**		**SECOND**		**THIRD**		**FOURTH**	
	AMOUNT	**FTE**	**Amount**	**FTE**	**AMOUNT**	**FTE**	**AMOUNT**	**FTE**
Faculty	$70000	1.0	$70000	1.0	$70000	1.0	$70000	1.0
Graduate Assistants	0		$20800	0.50	$20800	0.50	20800	0.50
Support Personnel	$4000	0.17	$4000	0.17	$4000	0.17	$4000	0.17
Fellowships and Scholarships	0		0		0			
SUB-TOTAL	$74000	1.17	$94800	1.67	$94800	1.67	$94800	1.67
	AMOUNT		**AMOUNT**		**AMOUNT**		**AMOUNT**	
Facilities	$0		$0		$0		$0	
Equipment	0		0		0		0	
Travel	0		$5000		$5000		$5000	
Supplies	0		0		0		0	
Other (specify)	0		0		0		0	
SUB-TOTAL	$0		$5,000		$5,000		$5,000	
TOTAL EXPENSES	$74000		$82,600		$82,600		$82,600	
REVENUES								
Revenue 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	
Expected Enrollment	12		22		22		22	
Tuition	$76,896.00		$124,956.00		$124,956.00		$124,956.00	
Fees	$46,704.00		$75,894.00		$75,894.00		$75,894.00	
*Other (specify) Technology enhancement fee, Energy surcharge, Online course fee	$8,640.00		$11,865.00		$11,865.00		$11,865.00	
TOTAL REVENUES	$58,240		$112,915		$112,915		$112,915	

* Describe/explain expected sources of funds in proposal text.

LOUISIANA BOARD OF REGENTS
Academic & Student Affairs

Guidelines for Academic Program Evaluation

The Board of Regents seeks your professional review of a graduate program proposal. Your observations and recommendations will help ensure the institution builds a quality degree program. Based on your review of the proposal and supporting materials along with institutional resources such as faculty and curriculum inventory, please provide a full assessment of the proposal with your observations, concerns, and recommendations. The questions below are designed as a guide, and not a comprehensive list of issues to consider; please feel free to skip questions or add observations as needed. If you require more information or details about any section of the proposal or the institution, please contact your Board of Regents liaison, and staff will provide the information as soon as possible.

A. Program Design

1. To what extent does the proposed breadth of course offerings represent a broad, well-integrated knowledge of the discipline?

The proposed courses cover all the areas that are important in the formation of cognitive scientists. This includes a good balance of quantitative courses, cognitive psychology, neuroscience, and programming courses. I did not see a course in R which is the main language used for data analysis. It might be a good idea to add this course as well if it is not included already. The inclusion of Python as a programming language is a great skill that is necessary in today's research environment.

2. If the program is interdisciplinary, to what extent is it coherent as a program?

Extremely coherent. Cognitive science as an interdisciplinary field has existed for at least 30 years. Bringing together cognitive psychology, neuroscience and computer science is essential in our knowledge economy.

3. How well does this program take into account the way the discipline or field is moving?

The program considers the movement in the field toward data analysis and programming. These are key areas that are of growing importance especially in light of the move toward an AI powered economy.

4. How well do the requirements (curriculum, research, etc) suit the program? Are they appropriate for a program of high quality?

Excellent. The only suggestion, as I noted above, is that an R programing course could be included.

5. How do the program's design and its fit with other offerings in the department or college reflect upon its potential viability and growth?

The viability of this program is quite high. It represents the confluence of two majors that are very popular at the moment, psychology, and computer science. At the same time, it adds an additional element that is not as strongly represented in either of those majors, computational models. The use of computation models has grown recently across the social sciences. Thus, the combination of these two fields represents a particular strength that goes beyond what is taught in each of them independently.

6. Does the program use alternate, creative forms of delivery? Please address the utility of delivery

approaches (including online and/or hybrid) in offering educational opportunities in the proposed program.

The proposed program seeks to use both hybrid and in-person modalities. As such it is positioned to better serve students who may need either or both modalities.

B. Need

1. Based on your experience and what is provided in the proposal, to what extent do the region, state, or nation need students in this discipline, at this level, at this time?

We live in a knowledge economy. Cognitive science is the birthplace of the modern economy. Large language learning models, predictive processing, and statistical learning are concepts that have emerged from this approach. Today, the press and society have finally taken interest in what has been at the forefront of Cognitive Science research for at least the past 40 years. Any university that does not consider this as one of their key fields of growth has already fallen behind.

2. To what extent is this program likely to address those needs effectively?

Extremely well. It allows students interested in Cognitive Science to gain training before entering a PhD program. For those who seek employment, it will allow training that should position them well.

C. Students

1. How realistic do enrollment projections appear to be?

Very realistic. It is at the level of other MA programs in adjacent areas at this time.

2. Does there appear to be an adequate supply of qualified students in the area? Is there enough financial support budgeted to attract able students to this program?

Yes. The oversupply of MA students in counseling could result in a gain for the proposed program. In addition, consultation with existing students has identified an interest in additional training in Cognitive Science.

3. Are the standards for admission and for measuring performance clear and reasonable? Is there a process for removing unsuccessful students from the program in a fair and timely manner?

Yes. Processes exist for measuring performance and for removing unsuccessful students.

4. Is the level of performance required in courses and on qualifying and candidacy exams clear and reasonable?

Yes.

D. Faculty

1. Does the department appear to have sufficient faculty strength and stability to successfully launch and maintain this program?

The proposed program leverages existing faculty in an optimal manner. The program should be able to begin with existing faculty. However, the addition of one or two faculty members would be helpful for redundancy and to ensure that the temporary loss of faculty participation (for example during leaves of absence) would be well tolerated. The addition of new faculty would also serve to broaden the expertise needed to cover capstone and/or thesis work.

2. To what extent is the faculty's apparent knowledge and understanding of their areas thorough and up-to-date? Can they cover the proposed range of courses now, adequately?

The faculty are knowledgeable in all of the areas covered. There is no issue with coverage of the courses in the proposed MS program.

3. What is your impression of the caliber of the faculty's research and publications? How important to

the field is the work being done?

The faculty focus their research programs in three key areas that are relevant to Cognitive Science, Long-Term Memory, Vision Science and Reading Comprehension. Large Language Models, for example, have to consider the nature of memory, reading and increasingly vision. Recent work suggests that vision may be important for AI models that deal with language. Of course, there is additional work in image and object recognition that do involve vision directly. Finally, vision science is one of the few areas in cognitive science that integrate cognitive, computational and neuroscience approaches from sensory input up to the cognitive processing needed for higher-level cognitive processes such as reading and object recognition.

4. Is the faculty generally recognized nationally, e.g., by appointment to national honorary bodies, committee work, editorial service, or by other recognition?

The faculty is recognized for their work at the appropriate levels which include committee work, editorial service, and national honorary bodies.

5. Is there any indication that excellence in teaching and mentoring is a major consideration?

Teaching and mentoring are very important for the proposed MS program.

6. Is adequate faculty guidance projected for students with regard to program design, advising, research, and opportunities for learning beyond the classroom?

Yes, the faculty have planned for a hybrid format. This allows for online classroom experiences as well as in-person mentoring.

E. Resources

1. To what extent do present library holdings or digital access appear adequate to initiate the proposed program?

The program plans to use Open Education Resources that will be available to the students. Students will also have access to materials that are available in the libraries.

2. What are the limitations of the library in each sub-discipline in which graduate seminars or degree options are offered and theses directed?

No limitations.

3. Are described plans to improve the library's holdings or program resources adequate and realistic?

No plans for additional acquisitions were included.

4. To what extent are facilities and services adequate for the purposes of the program? Do you sense or perceive any particular inadequacies?

No.

F. Administration

Does the proposed administrative structure appear appropriate? Are there any apparent advantages or disadvantages to this proposed structure?

The proposed structure is excellent. It does not rely on any additional administrative personnel beyond the faculty involved. If the program grows considerably, then it might be wise to hire an administrative assistant.

G. Accreditation

Is information on specialized, programmatic accreditation presented? If not, should it be?

N/A.

H. Related Fields

Does the program proposal identify sufficient support from related fields or programs? If not, discuss what sufficient support from related supports might be.

Yes it does. There is sufficient support from related fields or programs.

I. Costs

152683584. Does the proposed budget appear sufficient to launch a quality program?

The proposed budget costs are sufficient. The proposed program leverages existing faculty in an efficient manner.

152683585. Are projected costs realistic? Are there elements that are omitted or downplayed that should be in the budget for a quality program of this nature?

As noted, future increased enrollment should result in the contracting of an administrative assistant.

152683586. Is the amount of financial support projected available sufficient to sustain the program at high quality?

Yes.

152683587. Is there evidence that institutional support is firmly enough committed for the program to continue at high quality?

The support from the institution is enough to sustain the program during its first few years.

J. General Assessment, Comments, and Suggestions

1. Is the proposed program realistic?

Absolutely! The program is very well poised to have an impact. It leverages existing resources to achieve an important goal.

2. What are this program's notable strong and weak points?

The planned program is in an area of great need. It leverages existing resources in order to create something that is unique to the state of Louisiana. Individuals trained in Cognitive Science are and will continue to be crucial for the growing knowledge economy. The only weak point is that it is just getting off of the ground. It is surprising that the state of Louisiana has no existing program. A program like the one proposed should already be in place. Because of this great pent-up need, it is likely to be much more successful than anticipated.

3. Please make any comments regarding aspects of the program not covered in this review or in the proposal which you think should be developed or described.

No additional comments necessary.

BOARD OF SUPERVISORS FOR THE
UNIVERSITY OF LOUISIANA SYSTEM

ACADEMIC AND STUDENT AFFAIRS COMMITTEE

October 24, 2024

Item G.2. **Nicholls State University's** request for approval to offer a Bachelor of Science in Marine Transportation.

EXECUTIVE SUMMARY

Nicholls State University requests approval to offer a Bachelor of Science (BS) in Marine Transportation. The proposed program is a degree born out of a larger initiative that falls under the recently created Universities of Louisiana Maritime Academy (ULMA); an innovative approach conceptualized to meet the maritime industry's critical workforce needs by increasing students' exposure to opportunities associated with Louisiana's waterways. Establishment of the proposed program will enable the ULMA to seek federal designation as a State Maritime Academy from the Maritime Administration (MARAD) of the United States Department of Transportation. Currently, there are six (6) such academies (State University of New York Maritime College in Ft. Schuyler, Bronx, NY; Massachusetts Maritime Academy in Buzzards Bay, MA; California Maritime Academy in Vallejo, CA; Maine Maritime Academy in Castine, ME; Texas A&M Maritime Academy in Galveston, TX; and the Great Lakes Maritime Academy in Traverse City, MI) plus the United States Merchant Marine Academy.

The 132-credit hour proposed program, which builds upon Nicholls' existing Maritime concentration, requires specific knowledge, skills and abilities to meet both general education and core degree requirements as outlined by the United States Coast Guard (USCG) to prepare students to be eligible to sit for the USCG Third Mate's license exam for any gross tonnage vessel; and earn the endorsement for Standards of Training, Certification and Watchkeeping. This four-year program will be unique to Louisiana and equivalent to the other marine transportation programs offered by the institutions noted above. Graduates of the proposed program will assist in meeting market demand. Louisiana averages 6,400 jobs in the market for Captains, Mates and Pilots of Water Vessels; with an average of 12 new job postings per month. Of the 6,400 current jobs in the marine transportation industry, it is estimated that 1,795 of those workers are 55 years of age or older, and are approaching or reaching retirement age. In addition, predictive modeling indicates that the job market will grow by 2.5%, or 158 new positions, between 2024 and 2030 (data source: Lightcast).

Industry partners have been heavily engaged in conceptualizing the proposed program as well as in the creation of the ULMA. Such partners include, but are not limited to: Bollinger Shipyards, Edison Chouest Offshore, Jackson Offshore Operators, LUMCON, Open Waters, etc. Implementation and sustainability of the proposed program will require the hiring of an Executive Director (to be funded initially by the UL System) and four new full-time faculty (2 in YR 1, 1 in YR3 and 1 in YR4). Funds will be sought from state and federal government, along with industry partner funding, to assist with offsetting cost.

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 Nicholls State University's request to offer a Bachelor of Science in Marine Transportation.*

Nicholls State University
Office of the President
P.O. Box 2001 | Thibodaux, LA 70310 | 985.448.4003 | 985.448.4920 [F]

G.2.

October 3, 2024 ***Via Electronic Transmittal Only***

President Rick Gallot
University of Louisiana System
1201 North Third Street, Suite 7-300
Baton Rouge, LA 70802

Dear President Gallot:

Nicholls State University requests consideration and approval of the following item to be placed on the agenda for the October 24, 2024 meeting of the Board of Supervisors for the University of Louisiana System:

New Degree Program Proposal
Bachelor of Science in Marine Transportation-CIP 49.0309.

Thank you for your assistance in this matter.

Sincerely,

Jay Clune, PhD
President

JC/apf
Enclosures
c: Mr. Terry Braud, Executive Vice President for Finance & Administration
Mr. Jonathan Terrell, Vice President for Collegiate Athletics/Athletic Director
Dr. Michele Caruso, Vice President for Student Affairs
Dr. Todd Keller, Vice Provost/Chief Academic Officer
Ms. Renee Hicks, Assistant Vice President of Institutional Effectiveness Access & Success
Ms. Alison Hadaway, Director of Human Resources
Mr. Jerad David, Director of Communications & Legislative Affairs
Ms. Paige Pierce, Director of Alumni Affairs
Ms. Paulette Mayon, Controller & Ethics Liaison
Dr. Martin Meder, Faculty Senate President

Provost/Vice President for Academic Affairs
P.O. Box 2002
Thibodaux, LA 70310
985.448.4011
Fax: 985.448.4026

NICHOLLS
STATE UNIVERSITY
A MEMBER OF THE UNIVERSITY OF LOUISIANA SYSTEM

To: Dr. Jay Clune, President
From: Dr. Todd Keller, Vice Provost and Chief Academic Officer
Date: 10OCT24
Re: Bachelor of Science in Marine Transportation

The attached document is a request seeking Authority to Offer a New Degree Program; specifically, the Bachelor of Science in Marine Transportation, to be implemented Fall 2026. The BS in Marine Transportation is a degree born out of a larger initiative that falls under the creation of the University of Louisiana Maritime Academy (ULMA) initiative; an innovative approach to meeting the state's workforce needs in the maritime industry. Establishment of this degree will enable the ULMA to seek federal designation as a State Maritime Academy from the Maritime Administration (MARAD) of the United States Department of Transportation.

We respectfully ask that this proposal be submitted for the University of Louisiana System's October meeting of the Board of Supervisors.

Thank you.

Academic Degree Program Proposal Form

A.A. Policy 2.04: Academic Planning and Degree Program Proposals

A. **Overview**

Institution Name: Nicholls State University		Designation (flagship, statewide, regional, HBCU, 2-year): Regional		
College/School/Division: Al Danos College of Business Administration		Academic Department: Department of Management and Marketing		
Degree Designation: Bachelor of Science	Proposed Degree Name: Marine Transportation	CIP Code: 49.0309	Credit Hrs[b]:. 132	Contact Hrs[c]: 132
Planned Implementation Semester/Term & Year: Fall 2026		Was this program listed in the most recent Three-year Academic Plan? [X] Yes [ ] No		

[a] See AA Policy 2.11 Approved Academic Terms & Degree Designations

[b] If the program exceeds the standard 60 credits for associate or 120 credits for baccalaureate, you must provide justification and evidence of management board approval according to system policy.

[C] If applicable.

1. Provide a brief description and reason for the development of the proposed program, identifying its purpose and primary objectives.

The program is designed in support of the Universities of Louisiana Maritime Academy's goal to meet the maritime industry's critical workforce needs by increasing student exposure to opportunities associated with Louisiana waterways. This proposed degree would lead to a B.S. in Marine Transportation. Successful completion would meet the primary objective of qualifying the student to sit for the U.S. Coast Guard license examination as a Third Mate of any gross tonnage vessel, and issuance of Standards of Training, Certification and Watchkeeping (SCTW) credentials thereby increasing the available workforce needed to meet the demands of the maritime industry in Louisiana. Successful completion of the Third Mate licensing exam is a prerequisite for graduation from the program.

New courses will be developed and implemented through a cooperative agreement with firms in the maritime industry, through the legislatively created Marine/Water Consortium for the State, and through the University of Louisiana System. During the 2023 Regular Session of the Louisiana Legislature, Representative Wright introduced House Bill 258 for the establishment of a state maritime academy within the University of Louisiana System with the charge to: a) coordinate existing maritime programs and facilities, b) train merchant marine officers, and c) provide additional educational pathways aligned with workforce needs of the maritime industry. The Bill was signed into law on June 8, 2023 and became Act 231. Under the direction of then President Dr. Jim Henderson of the University of Louisiana System, Nicholls State University was charged with the development of a baccalaureate degree program to prepare students to sit for the licensure examination for unlimited tonnage marine vessels. This proposal marks a first-step in the realization of ACT 231, and more

specifically, meeting the requirements of item C above: provide additional educational pathways aligned with the workforce needs of the maritime industry.

2. Describe specialized accreditation requirements associated with the program if applicable (refer to Board of Regents A.A. Policy 2.13: Program Accreditation). If not required, describe whether the institution will seek any voluntary accreditation or certification for the program.

To operate as a state designated maritime academy, the University of Louisiana System will seek the State Maritime Academy designation from The Maritime Administration (MARAD) of the U.S. Department of Transportation (DOT). Four-year undergraduate programs that operate as colleges within state universities are eligible for this designation. State Maritime Academies offer instruction, theory, and at-sea training to prepare students to become commissioned officers and Merchant Marine. MARAD provides limited federal assistance and training vessels to State Maritime Academies.

3. Specify **SACSCOC** or other accreditation organization requirements. Mark all that apply.
   [ ] Substantive change requiring notification only
   [ ] Substantive change requiring approval prior to implementation
   [ ] Level Change
   [X] None

4. Has the program been designed to align with any Board of Regents or other statewide initiatives? Check all that apply.
   [ ] MJ Foster Promise Program
   [ ] Cyber-security Initiatives
   [ ] Louisiana Transfer Pathways
   [X] Other__The program is designed to align with recently created Louisiana Maritime Academy and the Maritime/Water Consortium, which were established to provide the state, region, and nation with comprehensive opportunities for education and training of future mariners. The Academy will serve as a centralized and accessible entry point for the community to address issues that face Louisiana and the nation in the development of a maritime workforce capable of meeting the demands of the future in both ocean-going and inland waterways.

5. If this proposal is for a Master's or Doctoral program, provide a list below (name, institution, email address, brief summary of qualifications) for at least three external review candidates. Reviewers should be active or retired full time faculty members from an accredited institution; have experience developing and/or administering a program like the proposed program; and should not have direct affiliation with a Louisiana institution.

N/A

B. The Master Plan and Institutional Role, Scope, and Mission

6. How does the program align with your institutional role, scope, and mission? If the program does not align, provide a compelling rationale for the institution to offer the program.

   With its focus on enhancement of the "Louisiana coastal community" Nicholls State University is uniquely positioned to develop and implement a four-year program designed to meet the maritime industry's needs; a program that will result in the maritime federal designation/recognition from The United States Maritime Administration (MARAD), allow students to sit for the U.S. Coast Guard license examination as a Third Mate of any gross tonnage vessel and receive Standards of Training, Certification and Watchkeeping (SCTW) credentials. Nicholls State University identifies as the Louisiana university that is Closest to the Coast, and is in the process of completing construction on the Coastal Center that will continue to amplify the save-our-coast research already underway at Nicholls. The addition of the Bachelor of Science in Marine Transportation at Nicholls makes sense as we continue to focus on celebrating and saving our coast and economically-important waterways.

7. How does the program align with your institution's strategic plan and academic program portfolio?

The proposed program aligns with Nicholls 2023 - 2028 Strategic Plan, Pillar: Nicholls provides academic degree programs that meet current and future needs of our coastal region, nation, and world. This academic program would become part of a state-wide portfolio focused on the maritime industry that would also include the current Nicholls State University Bachelor of Science in Management - Maritime Concentration. Coupled with the four-year management degree, the Management – Maritime Concentration prepares the student for a career in management in the maritime and maritime related industries. Particular focus is on the oil and gas sector and requirements of the shipowner, as well as periphery businesses. The student receives exposure to commercial, legal, financial and other areas unique to this sector of the shipping industry.

8. How does the program align with the priorities outlined in the Board of Regents Master Plan for Higher Education? Provide brief descriptions for each. Additional details will be required later in the proposal.

- Accessibility (mode of delivery, alternate course scheduling)

A MARAD designated program must meet specific requirements to achieve and maintain the federal designation. As a program that requires not only the acquisition of knowledge, but also a high degree of skills-based learning and demonstration/performance measures, the program will primarily be offered through traditional face-to-face course work. As allowable, hybrid and online course work will be interwoven into the curriculum to allow students the time needed for physical-presence course requirements and quality of life activities.

- Affordability (use of OER, transfer agreements, prior learning assessment, employer funded)

At present there are no plans for the use of OER, transfer agreements from other educational institutions, or providing credit for prior learning toward the degree.

Industry support for the maritime academy, and this particular program, might lend itself to firms assisting with tuition or offering some type of tuition reimbursement benefit.

MARAD provides direct assistance to existing State Maritime Academies (SMAs) each fiscal year. This funding ensures the U.S. has a continuous supply of capable and well-trained U.S. Merchant Mariners. Direct payments help the SMAs offset the cost to train credentialed USCG Merchant Mariner officers and strengthen the ability to maintain high quality faculty, innovative facilities, and state of the art technology. https://www.maritime.dot.gov/education/maritime-academies/state-maritime-academy-support-program

- Partnerships (with industry, community-based organizations, other institutions)

The University of Louisiana Maritime Academy will operate within a consortia model, with Nicholls State University housing the four-year degree program that will result in the maritime federal designation. Additionally, an array of 4-year and 2-year degree programs, 2+2 pathways, and specialized STCW training programs and courses will be offered across the consortium. This

comprehensive approach ensures that the academy fully supports the spectrum of professions and careers within the maritime industry.

We have engaged industry partners who both have a need for such credentialed mariners and companies who perform specialized training internally, such as STCW, A/B, Bridge Team Management, Master/Mate, etc. through USCG-approved courses. In doing so, much has been noted regarding the extent of the USCG approvals needed to operate such facilities, including course development/approval, facility layout, student/instructor ratios, instructor credentialing, simulator technology, and onboard assessments from designated examiners. We intend to partner with industry groups to utilize a phased approach to seek USCG and MARAD approvals for a maritime academy designation.

Industry partners include but are not limited to:

Bollinger Shipyards

Edison Chouest Offshore

Jackson Offshore Operators

LUMCON

Marquette Transportation Company

Next Generation Logistics

Odyssea Marine

Open Waters

Otto Candies, LLC

SEACOR Marine

- Work-based learning (paid or experiential internships, apprenticeships, etc.)

N/A

- Other program attributes that contribute to closing the achievement gap with underserved populations including low income, minority, and adult learners.

The Louisiana Maritime Academy will seek to be recognized as a Minority-Serving Institution (MSI) that seeks to assist industry in diversifying the candidate pool, as well as the water workforce of the future. Specialized scholarships, along with a focus on recruiting and graduating a diverse pool of students/cadets will be of utmost importance.

C. Need

9. How does the program align with relevant local, regional, and/or state workforce strategies and future societal educational needs?

This four-year program will be unique to Louisiana and equivalent to other marine transportation programs offered at State Maritime Academies across the U.S.

A 2015 workforce study addressed the need to strengthen ties between higher education and Louisiana's maritime industry with the goal of enhancing and diversifying training options in the state (Louisiana Association of Business & Industry, 2015). Strategies addressing these training options were critical to meeting the future workforce needs of an industry vital to the state.

Maritime employment in Louisiana includes vessel operators, marine terminals, shipyards and cargo workers. A 2020 analysis noted six deep draft ports, nine coastal ports and 13 inland ports in the state. The Lower Mississippi River from Baton Rouge to New Orleans is one of the busiest port complexes in the world, with approximately 6,000 oceangoing ships annually handling 60 percent of the nation's export grain and 20 percent of its energy needs. Louisiana ports have an economic impact of more than $180 billion annually to the U.S. economy and are responsible for more than 500,000 jobs (Port NOLA, 2021).

According to the Louisiana Association of Business and Industry (LABI), in 2014, one in five jobs and $3.5 billion in employment income were generated by the maritime industry. During this time, Louisiana was home to the movement of 500 million tons of cargo. The total gross economic impact of $11 billion, the highest in the country in 2013 (The Maritime Executive, 2014), resulted in nearly $2 billion in state tax revenue.

Despite its size and scope, a scarcity of qualified personnel is hindering the industry's ability to expand. Advances in technology continued to alter the industry, and thus, the necessary skills of workers, including those on vessels. According to a 2020 study, to provide employers with consistent access to qualified labor, workforce training programs must "reflect the needs of employers" and account for technological advances. Training should also focus on preparing "students to be marketable for any job that is directly connected to the overall health of the maritime industry" (GNO Regional Economic Development, 2020).

Citations available upon request

10. Summarize faculty engagement with alumni, community representatives, employers, Regional Economic Development Organizations (REDO) or other external stakeholders, and explain how those conversations shaped the design and curriculum of this proposed degree.

The concept for the Louisiana Maritime Academy comes out of the legislatively created Maritime/Water Consortium for the State. The consortium includes community college partners – SOWELA Technical Community College, South Louisiana Community College, Fletcher Technical Community College, Nunez Community College Northshore Technical Community College and Delgado Community College, four-year university partners – Nicholls State University and University of Louisiana at Lafayette, the state research institute – LUMCON and the Louisiana Board of Regents. The consortium has identified and developed current and future workforce trends, state economic drivers, and a gap analysis of the industry, in concert with Greater New Orleans, Inc. This analysis combined with input from a broad-based advisory group and industry partners indicate a need for Louisiana to develop and operate a state-wide maritime academy.

In addition, the Consortium has an active, participatory advisory board that is composed of industry, governmental, and non-profit partners – all with vested interest in the future of the maritime industry within the State. Additionally, the LCTCS is preparing to launch a search for a new Executive Director for the Maritime Center of Excellence.

11. What is the program's service area (local, regional, state, national)? If outside of the institution's traditional service area, provide a rationale.

The program will primarily serve the regional and state needs of maritime-related firms in South Louisiana; this being the institution's traditional service area. In addition, it can be expected to compete for students from across the country as there are only six other State Maritime Academies across the U.S.

12. Provide evidence of demand for the program in this service area (e.g. prospective student interest survey data, community needs, letters of support from community groups or employers).

Data from Lightcast indicates that Louisiana is a "hotspot for this kind of job" market. Louisiana averages 6,400 jobs in the market for Captains, Mates, and Pilots of Water Vessels; with an average of 12 new job postings per month. The national average for jobs in this market, of a similar size to Louisiana, is 467; with an average of 3 new job postings per month. This indicates that there is a need for such workers in this area, and that the supply of jobs is robust. Predictive modeling indicates that the job market will grow by 2.5%, or 158 new positions, between 2024 and 2030. The majority of jobs (2,191) currently exist in the New Orleans/Metairie area, with the Houma/Thibodaux area coming in second (1,886 jobs). Baton Rouge, Morgan City, and Lafayette follow with job numbers of 605, 456, and 385 respectively. Between January 2024 and August 2024 there were 95 unique job postings among 41 unique employers, and an average of 315 new monthly hires.

In addition, as mentioned previously, according to a 2020 study, to provide employers with consistent access to qualified labor, workforce training programs must "reflect the needs of employers" and account

for technological advances. Training should also focus on preparing "students to be marketable for any job that is directly connected to the overall health of the maritime industry" (GNO Regional Economic Development, 2020).

Citations available upon request

13. What is the employment outlook for occupations related to the program?
    You may find this information using the following information sources among others:
    a. EMSI's Program Overview Report (check with your Office of Academic Affairs for access)
    b. Louisiana Workforce Commission
    c. US Department of Labor Projections Managing Partnership
    d. The NCES CIP to SOC crosswalk.

    If data for the program's service area is not available, then use state- or national-level data and indicate below.

    [ ] Service Area Data [X] Sate Data [ ] National Data
    Service area data is reported above in item # 12 in terms of current employment. State level data is rep[orted below as the program is intended to serve the entire state as its only marine transportation four-year degree.

Related Occupation	LWC Star Rating	Current Employment [2024]	Projected Employment [2030]	# Change	% Change	Average Annual Openings	Average Salary
Captains, Mates, and Pilots of Water Vessels	5 Star	6,400	6,558	158	2.5%	144	$103,376
Transportation, Storage, and Distribution Managers	5 Star	1,648	1,765	116	7.1%	1,548	$87,922
Logisticians	5 Star	1,884	2,121	237	12.6%	1,092	$69,160

Long-term Employment Projection by Industry					
		2020	2030	Employment	Percent
	NAICS	Base	Projected	Change	Change
Industry Sectors	CODE	Employment	Employment	2020-2030	2020-2030
RLMA 1 : Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John the Baptist, & St. Tammany					
Water transportation	483	3,893	4,743	850	21.8%
Support activities for transportation	488	7,782	7,344	-438	-5.6%
RLMA 2 : Ascension, E. Baton Rouge, E. Feliciana, Iberville, Livingston, Pointe Coupee, St. Helena, Tangipahoa, Washington, W. Baton Rouge, & W. Feliciana					
Water transportation	483	509	950	441	86.6%
Support activities for transportation	488	3,216	3,028	-188	-5.8%
RLMA 3 : Assumption, Lafourche, & Terrebonne					
Water transportation	483	2,181	4,128	1,947	89.3%
Support activities for transportation	488	4,131	4,783	652	15.8%
RLMA 4: Acadia, Evangeline, Iberia, Lafayette, St. Landry, St. Mary, St. Martin, & Vermilion					
Water transportation	483	650	776	126	19.4%
Support activities for transportation	488	1,476	1,456	-20	-1.4%
RLMA 5: Allen, Beauregard, Calcasieu, Cameron, Jefferson Davis, & Vernon					
Water transportation	483	78	102	24	30.8%
Support activities for transportation	488	932	839	-93	-10.0%
STATEWIDE Projection					

Water transportation	483	7,310	10,699	3,389	46.4%
Support activities for transportation	488	18,415	18,438	23	0.1%

List other institutions within the service area that offer the same or similar programs and include the number of graduates from within the last year. This information is available through IPEDS, EMSI's Program Overview Report and BOR Searchable CRIN.

Institution	Program (degree and title)	No. Graduates in past year
NONE		

14. Based on the data provided in questions 13 and 14, discuss how this program will help address a need or gap in the labor market, or provide education to further the public good.

The program as designed will result in maritime federal designation/recognition from The United States Maritime Administration (MARAD). This allows graduates to sit for the U.S. Coast Guard license examination as a Third Mate of any gross tonnage vessel and receive Standards of Training, Certification and Watchkeeping (STCW) credentials. Such jobs have a 5-star rating from the LWC.

15. What impact will the proposed program have on similar or related programs at your institution?

N/A

16. Using data from the US Department of Labor O*-Net and/or EMSI's Program Overview Report identify at least three technical skills and three Knowledge, Skills, and Abilities (KSAs) as identified in O*-Net/EMSI associated with the related occupations.

Occupation	Occupation-specific skills & KSAs
Captains, Mates, and Pilots	Skill - Operation and Control — Controlling operations of equipment or systems.
Captains, Mates, and Pilots	Skill - Equipment Maintenance — Performing routine maintenance on equipment and determining when and what kind of maintenance is needed.
Captains, Mates, and Pilots	Skill - Operations Monitoring — Watching gauges, dials, or other indicators to make sure a machine is working properly.
Captains, Mates, and Pilots	KSA- Transportation — Knowledge of principles and methods for moving people or goods by air, rail, sea, or road, including the relative costs and benefits.
Captains, Mates, and Pilots	KSA - Critical Thinking — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.
Captains, Mates, and Pilots	KSA - Spatial Orientation — The ability to know your location in relation to the environment or to know where other objects are in relation to you.

D. Curriculum

17. List at least three programmatic student learning outcomes (what students will know and be able to do). Describe how and when outcomes will be assessed.

Graduates will apply and demonstrate critical thinking and problem solving skills to address complex shipboard challenges. Outcomes will be assessed during onboard training scheduled for the cadets' freshman, sophomore, and junior summers.

Graduates will demonstrate practical skills and knowledge in watchstanding/ship handling capabilities and will be assessed within the Integrated Navigation III: Bridge Watchstanding course scheduled for the cadets' junior year.

Graduates will clearly communicate knowledge of shipboard operations both orally and in written form to both fellow cadets and external stakeholders.

18. The National Association of Colleges and Employers (NACE) provides the list of career ready competencies included in the table below. How do the student learning outcomes for the proposed program align with these career competencies? You may also list your institution's alternate career-based competencies if applicable.

Career Ready Competencies (NACE)	Student Learning Outcomes
Critical Thinking/Problem Solving	Students are required to demonstrate practical experience in ship handling
Oral/Written Communications	Oral and written communications are to be addressed across various general education courses including English 101 & 102, and Speech 101.
Teamwork/Collaboration	All students are required to complete onboard training exercises as part of a team during 3 summer months "at sea".
Digital Technology	Students will be exposed to the latest technology throughout their maritime training.
Leadership	As a cadet-based program students will be exposed to leadership expectations throughout the program.
Professionalism/ Work Ethic	As a cadet-based program, students will be required to demonstrate professionalism and work ethos throughout the program.
Career Management	As a cadet-based program, students will be required to demonstrate continual personal and professional learning and to build relationships both within the Academy and in industry.
Equity and Global/Intercultural Fluency	N/A

19. List the specific technical skills and KSAs identified in question 17 and show how they relate to the program's student learning outcomes. Insert additional rows as needed.

Technical Skills and KSAs	Student Learning Outcome (s)
Skill - Operation and Control — Controlling operations of equipment or systems.	Graduates will apply and demonstrate critical thinking and problem-solving skills to address complex shipboard challenges. Outcomes will be assessed during onboard training scheduled for the cadets' freshman, sophomore, and junior summers.
Skill - Equipment Maintenance — Performing routine maintenance on equipment and determining when and what kind of maintenance is needed.	Graduates will apply and demonstrate critical thinking and problem-solving skills to address complex shipboard challenges. Outcomes will be assessed during onboard training scheduled for the cadets' freshman, sophomore, and junior summers.
Skill - Operations Monitoring — Watching gauges, dials, or other	Graduates will demonstrate practical skills and knowledge in watchstanding/ship handling capabilities and will be assessed within the Integrated Navigation III: Bridge Watchstanding course scheduled for the cadets' junior year.

indicators to make sure a machine is working properly.	
KSA- Transportation — Knowledge of principles and methods for moving people or goods by air, rail, sea, or road, including the relative costs and benefits.	Graduates will clearly communicate knowledge of shipboard operations both orally and in written form to both fellow cadets and external stakeholders.
KSA - Critical Thinking — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.	Graduates will apply and demonstrate critical thinking and problem-solving skills to address complex shipboard challenges. Outcomes will be assessed during onboard training scheduled for the cadets' freshman, sophomore, and junior summers.
KSA - Spatial Orientation — The ability to know your location in relation to the environment or to know where other objects are in relation to you.	Graduates will demonstrate practical skills and knowledge in watchstanding/ship handling capabilities and will be assessed within the Integrated Navigation III: Bridge Watchstanding course scheduled for the cadets' junior year.

20. The American Association of Colleges & Universities identifies a list of high impact educational teaching and learning practices (HIPs) listed below (see https://www.aacu.org/trending-topics/high-impact). Briefly describe how the program will utilize those HIPs that are applicable, including whether it is optional or required.

AACU HIPs	
First Year Experience	A first-year course, similar to UNIV 101, but focus UNIV 101 University Prep (design for Maritime Cadets)
Undergraduate Research	N/A
Common Intellectual Experiences	All cadets are required to participate in on-board training during their freshman, sophomore and junior summer terms.
Diversity/Global Learning	N/A
Learning Communities	Students will take multiple linked courses as a group (cohort) and work closely with one another and with their professors/instructors.
ePortfolios	N/A
Writing Intensive Courses	All cadets are required to complete two English composition courses.
Service-Learning, Community-based Learning	Field-based "experiential learning" (on board training) with community partners (industry) is part of the program.
Collaborative Assignments & Projects	All cadets are required to participate in on-board training during their freshman, sophomore and junior summer terms.
Internships	N/A
Capstone Courses and Projects	Summers at sea serve as a type of capstone course for competencies learned in the classroom/training facility. Final passage of a licensing exam is a required component of obtaining the degree.

21. Attach a map of the curriculum by semester for a full-time student enrolled in at least 15 units per semester. This may be structured like a program of study in the general catalog or on a curriculum guide.
    - Include course prefixes, numbers, titles, and credit hour requirements. Identify courses that meet general education requirements.
    - Include alternate tracks and requirements by concentration if applicable. Identify courses that are applicable to the alternative tracks.
    - List all major course requirements. Indicate the word "new" beside new courses.
    - Indicate work-based learning experiences (such as internships, clinicals etc.) if applicable.
    - Provide a summary of how the curriculum meets the learning outcome goals described in questions 18-21.

Curriculum: Bachelor of Science in Marine Transportation

Legend:

+New Program Core Courses currently under development.

1- Indicates required courses in the Marine Transportation major. These courses will be used to compute the major GPA, which must be at least 2.25.

2- Indicates license courses leading to a USCG/STCW license endorsement or sea time credit accrual which require a minimum grade of C (70%) or better to earn the endorsement or accrual. Students will be required to repeat the course until they earn a grade of C (70%) or better.

3- Required Logistics course.

*Including, but not limited to: Inland Waterways, Intermodal Transportation, Maritime Supply Chain – Transportation.

FRESHMAN YEAR	**Sem. Hrs.**
FALL	
+Proficiency in Survival Craft (1,2)	3
+Rigging and AB (1,2)	3
HIST 255 - American History	Gen Ed - Humanities 3
ENGL 101 English Composition I	Gen Ed - English 3
UNIV 101 University Prep	1
MATH 101 – College Algebra	Gen Ed - Mathematics 3
Semester Credit Hours	**16**
SPRING	
+Rules of the Road, Navigation, Damage Control (1,2)	3
+Maritime Security, VSO (1,2)	3
+Naval Science for the Merchant Marine Officer (1,2)	3
ENGL 102 English Composition II	Gen Ed - English 3
MATH 102 - Trigonometry	Gen Ed - Mathematics 3
Semester Credit Hours	**15**
SUMMER	
+STCW & Survival at Sea (1,2)	4
Semester Credit Hours	**4**
Total hours for freshman year	**35**
SOPHOMORE YEAR	
FALL	
Economics 255 Survey of Economic Principles	Gen Ed - Social Science 3
+Ship and Maritime Supervision (1,2)	3

+Bridge Resource Management/Leadership and Management (1,2)	3
+Maritime Medical Care (1,2)	Gen Ed - Life Science 3
Physics 101 – Physics I (Algebra/Trigonometry Based)	Gen Ed - Physical Science 3
Semester Credit Hours	**15**
SPRING	
+Ship Stability and Trim (1,2)	3
+Integrated Navigation I: RADAR/ARPA (1,2)	4
+Navigation Rules, International and Inland (1,2)	2
Physics 102 – Physics II (Algebra/Trigonometry Based)	Gen Ed - Physical Science 3
Physics 153 – Elementary Physics Laboratory	2
SPCH 101 – Fundamentals of Public Speaking	Gen Ed - Humanities 3
Semester Credit Hours	**17**
SUMMER	
+Deck Sea Training II: Intermediate Communications Navigation and Seamanship (ON BOARD TRAINING) (1,2) OR +Deck Sea Training II – Commercial Internship (ON BOARD TRAINING) (1,2)	4
Semester Credit Hours	**4**
Total hours for sophomore year	**36**
JUNIOR YEAR	
FALL	
+Maritime Meteorology (1,2)	3

+Global Maritime Distress Safety System (1,2)	3
+Integrated Navigation II: Electronic Navigation/ECDIS (1,2)	2
+Seamanship III (ON BOARD TRAINING) (1,2)	2
GOVT 101 - American National Government	Gen Ed - Social Science 3
Fine Arts elective	Gen Ed - Fine Arts 3
Semester Credit Hours	**16**
SPRING	
+Ocean Transportation I (SOLAS, Domestic vs International, MARPOL (1,2,3)	3
+Marine Liquid Cargo Operations (Tankerman, NOS Liquid Substances) (1,2)	3
+Integrated Navigation III: Bridge Watchstanding (Bridge Resources Management) (1,2)	2
ACCT 205 – Introduction to Financial Accounting	3
Humanities Elective	Gen Ed - Humanities 3
Semester Credit Hours	**14**
SUMMER	
+Deck Sea Training III: Advanced Communications, Navigation and Seamanship (1,2) (ON BOARD TRAINING)	4
Semester Credit Hours	**4**
Total hours for junior year	**34**

SENIOR YEAR	
FALL	
+Port Operations, Administration and Economics (1)	3
+Advanced Topics in Shipboard Operations (1)	2
+The Navigator (Navigation (general), Plotting, Tides, Currents, Search and Rescue) (1)	2
+Celestial and Coastal Navigation (1,2)	2
MNGT 301 – Management of Organizations and Behavioral Processes	3
+Watch keeping, including COLREGS and IMO Standard Marine Communication Phrases (SMCP)	3
Semester Credit Hours	**15**
SPRING	
BSAD 325 – Admiralty Law (1)	3
+Terrestrial Navigation (1,2)	3
+Visual Signaling and Ship Handling	3
+APPROVED ELECTIVE* (1)	3
Semester Credit Hours	**12**
Total hours for senior year	**27**
Total Hours Required for Degree	**132**

Curriculum contains 39 hours of General Education courses as required by the Board of Regents.

Overall curriculum exceeds 120 credit hour Board of Regents limitation by 12 credit hours (total 132 credit hours). The Bachelor of Science in Marine Transportation degree requires specific knowledge, skills, and abilities to meet both general education and core degree requirements as outlined by the United States Coast Guard to prepare students to be eligible to sit for the U.S. Coast Guard Third Mate's license exam for any gross tonnage vessel; and earn the endorsement for Standards of Training, Certification, and Watchkeeping.

22. Check all proposed program modes of delivery that apply:
    [X] On campus (<50% online)
    [ ] Hybrid (51-99% online)
    [ ] 100% online

23. Describe how students will have the opportunity to receive credit for prior learning in the program's curriculum. (see Board of Regents Policy AA 2.23)

At present, there is no opportunity to earn credit for prior learning in the proposed program/curriculum.

24. Describe how Open Education Resources (OER) have been incorporated into the program's instructional materials. Identify other measures the institution will take to ensure course material affordability.

At present Open Education Resources have not been incorporated into the program's instructional materials. In the future, it is expected that opportunities for OER will be examined.

25. What, if any, special preparation will students need for admission to the program? This may include prerequisite courses or degrees, program-specific selective admission criteria or eligibility, or work experience

    Students must meet the general admissions requirements of Nicholls State University. Additionally, applicants specifying the Bachelor of Science in Marine Transportation must meet the physical standards of the United States Coast Guard and all requirements for licensing as a United States Merchant Marine, as established by federal law. Finally, based on the controlled cohort size, Nicholls envisions the creation of a competitive admissions process into this specific degree program should interest exceed 15 students per cohort year. Criteria for ranking candidates would include elements such as high school GPA, SAT/ACT score with emphasis on Math and Science scores, and interview.

26. Identify the partners you are working with to create an educational and career pipeline for this program. Mark all that apply.

[ ] High school CTAE	[X] Employers
[ ] High school STEM	[ ] Community organizations
[ ] Career academies	[X] Professional associations
[ ] 2-year college	[ ] Other Programs at your Institution
[ ] 4-year college/university	[ ] Other Partner

    List specific partners for each category checked above.

The concept for the Louisiana Maritime Academy comes out of the legislatively created Maritime Consortium for the State. In addition, the Consortium has an active, participatory advisory board that is composed of industry, governmental, and non-profit partners – all with vested interest in the future of the maritime industry within the State.

Industry partners include but are not limited to:

Bollinger Shipyards

Edison Chouest Offshore

Jackson Offshore Operators

LUMCON

Marquette Transportation Company

Next Generation Logistics

Open Waters

Otto Candies, LLC

SEACOR Marine

Professional Associations as Collaborators:

OMSA	Port of South Louisiana
AWO	Greater Fourchon Port Commission
Waterways Council	Port of New Orleans
Pilots Assoc. of S. Louisiana	Port of New Iberia
Port of Plaquemine	Port of Lake Charles

Stakeholders that will benefit from the Cadets and Graduates, both directly and indirectly, as well as the long-term success of the US Maritime Industry.

Shell	British Petroleum
Cargill	Chevron
Marathon	Archer Daniels Midland
Exxon Mobil	Bunge

27. Describe how the education pipeline for the program will function. Include any stackable or transferrable credentialing that is involved.

At present, there is no plan for stackable or transferable credentials.

28. Describe how the institution will support graduates in meeting career goals such as securing employment, further education, and industry certification.

The University, through its Maritime Management Program and other facets of the Al Danos College of Business, has established relationships with hundreds of firms and employers in industry. Through these relationships, and the students' involvement in summer “at sea” experiences with industry partners, constant communication will ensure ongoing knowledge of employment needs within the industry. Additionally, opportunities will be assessed with our Office of Career Services for Maritime Industry specific career fairs to link graduates with potential employers.

29. Describe how the success of program graduates will be tracked and assessed? Success may include employment, enrollment in another degree program, or certification/licensure passage.

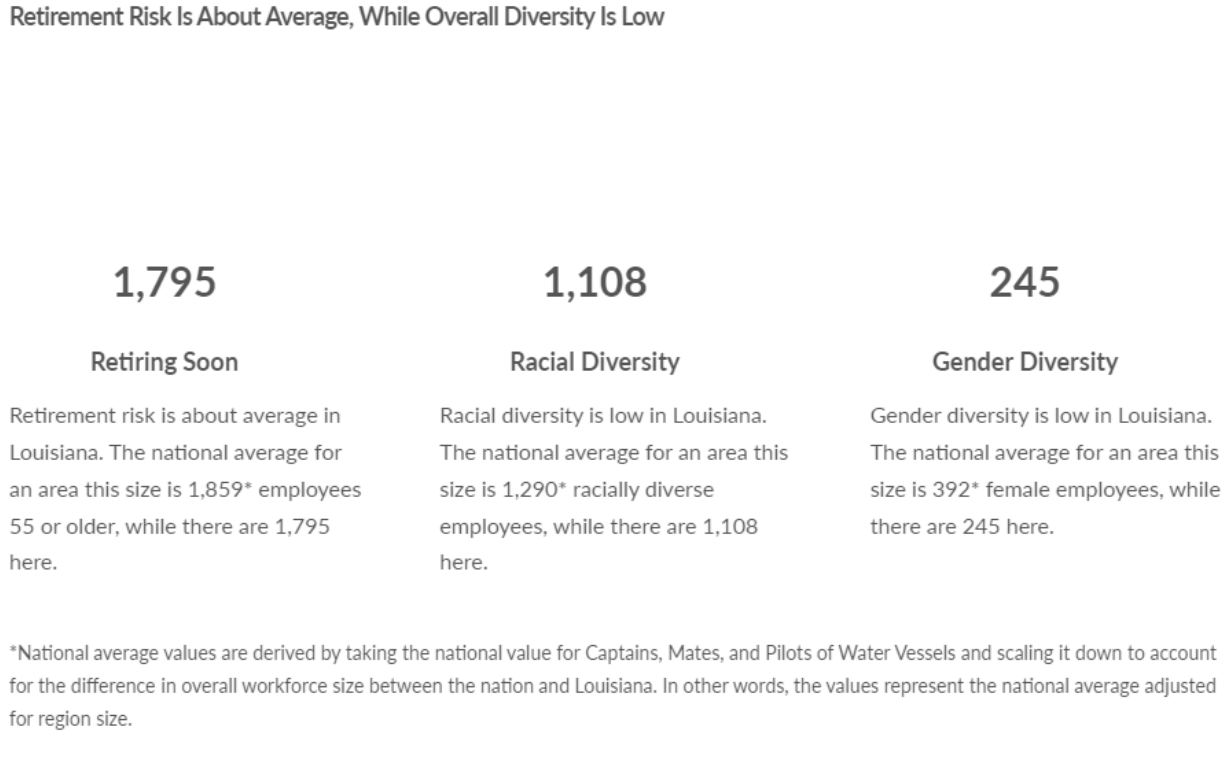
Program success is to be assessed by licensure passage and employment. This will be tracked with direct interaction with employers and graduates. A requirement of the program is passage of the licensure exam prior to the degree being awarded.

E. Students

30. Describe the institution's process for determining prospective and current student interest in the program. This may include enrollment in existing courses, minors, or concentrations, student surveys, admissions inquiries.

The Bachelor of Science in Marine Transportation degree program is but a part of a broader initiative across the state, and specifically the University of Louisiana System, to create the University of Louisiana Maritime Academy. Currently, there are only seven Maritime Academies in the United States preparing the marine transportation workers of tomorrow. In 2022, the University of Louisiana System hosted current captains and mates of the maritime industry at the For Our Future conference, where they held a panel discussion focused on the need for tomorrow's workforce. They also shared their stories of having to leave the state for their education. Furthermore, they issued a clarion call for diversity within the industry, citing that workers in the industry often follow a familial line.

Of the 6,400 current jobs in the marine transportation industry, Lightcast estimates that 1,795 of those workers are 55 years of age or older, and are approaching or reaching retirement age. This will create openings in the industry. Although a needs/intertest study has not been performed, as a state-wide initiative the recruiting efforts will focus heavily on diversity as both racial and gender diversity is low for this industry in Louisiana.



31. Provide current institutional and department/college overall retention and graduation rates.

The institutional graduation rate for Nicholls State University, based on the 2017 cohort and the 6-year graduation rate, is 54.2%. The institutional retention rate is 75.7%. At the college level, the Al Danos College of Business Administration has an overall graduation rate of 63.3%, and an overall retention rate of 78.2%. More specifically, the Department of Management and Marketing has a current overall graduation rate of 7.4% with an overall retention rate of 78.6%.

32. Provide an enrollment projection for the next four academic years.

	Year 1	Year 2	Year 3	Year 4
Academic Year (Summer, Fall, Spring)	2026-27	2027-28	2028-29	2029-30
Base enrollment*	15	30	45	60
Lost to Attrition (should be negative)	0	0	0	0
New to the institution	0	0	0	0
Shifted from existing programs within your institution	0	0	0	0
Total Enrollment	**15**	**30**	**45**	**60**
Graduates	0	0	0	15
Carry forward base enrollment for next year	0	0	0	0

*Total enrollment becomes the base enrollment for the following year

33. If projected retention and graduation rates are significantly different than for the institution overall, please explain.

Due to the nature of this state-wide initiative to build out a maritime academy with state and federal funding support for students, and the small cohort-based design of the BS in Marine Transportation, an assumption is made that students accepted into the cohort will be highly vetted, highly motivated students. Therefore, attrition is not factored into enrollment projections due to the support mechanisms that are envisioned for the program.

34. Discuss the marketing and recruitment plan for the program. Include how the program will be marketed to adult learners and underrepresented and special populations of students.

Much of the marketing and recruiting will occur through firms in maritime and maritime related industries. Such firms are a good source of individuals looking to enhance their long-term career prospects. Many of the firms are directly and constantly recruiting graduates of existing maritime academies across the U.S.

Social media and campaigns will also be used to market the maritime program and directly recruit students. In addition to social media marketing, other marketing plans might include search engine optimization and the use of pay-per-click advertising through, for example, search engines (e.g. Google advertising).

Additionally, the normal avenues of recruiting in high schools through the Office of Admissions, Colonel Days, Family Days, and Department-specific open houses will be used to highlight the introduction of a new and exciting educational pathway to an exciting career opportunity. And, as a statewide initiative, we will work with the University of Louisiana System and other entities to promote the program.

F. RESOURCES

F1. Finance

35. Attach the completed Regents budget template

36. How has student affordability been considered in the design of the program? Are there any additional financial costs that students will have to take on as part of this program? (e.g. special fees, software licenses, equipment, travel, etc.) If so, what strategies have you adopted to offset the cost burden?

Students, at least initially, will be expected to travel to off-campus facilities for different types of training. The University is currently examining options to assist in offsetting such costs including state and federal appropriations.

37. How will the institution cover increased indirect costs associated with the proposed program? Consider costs such as student advising, student support services, tutoring, career services, additional library materials, and replacing or upgrading technology or other infrastructure.

The program design will result in maritime federal designation/recognition from The United States Maritime Administration (MARAD) and possible other regulatory bodies.

MARAD provides direct assistance to existing State Maritime Academies (SMAs) each fiscal year. This funding ensures the U.S. has a continuous supply of capable and well-trained U.S. Merchant Mariners. Direct payments help the SMAs offset the cost to train credentialed USCG Merchant Mariner officers and strengthen the ability to maintain high quality faculty, innovative facilities, and state of the art technology. https://www.maritime.dot.gov/education/maritime-academies/state-maritime-academy-support-program

Appropriations from the state and federal government, along with industry partner funding, will be used to cover indirect costs. There are plans for the University of Louisiana System to request additional funding of up to one million dollars in support of the ULMA. As well, conversations have been started with federal legislators to request up to two-million dollars in federal support for the ULMA.

38. If existing funds are being reallocated, describe the impact on existing programs and the plan to mitigate these impacts.

Existing funds will not be allocated to the proposed program.

F2. Instruction and Student Support

39. Faculty
    a. Describe the needs for new/additional faculty for the program including program leadership? Identify any anticipated challenges in hiring adequate faculty for the program.

An Executive Director for the University of Louisiana Maritime Academy will be hired and housed at Nicholls State University, funded through the University of Louisiana System. Additionally, two new faculty will be needed in the first year of the program, with a third faculty coming onboard for years 2 and 3, and adding a fourth faculty in year 4 of the program. Qualified Adjunct faculty will be used for some content-specific courses not represented within the core program faculty, as this is common practice within state maritime academies. Preliminary discussions are being held to identify potential faculty who would be qualified by institutional and SACSCOC standards. State and/or Federal subsidizing of the program may be necessary to meet the salary demands of potential faculty candidates.

b. How will current faculty be redirected to this program from existing programs?

Faculty will not be redirected from existing programs to this proposed program.

c. Attach your SACSCOC Faculty Roster for the proposed program. (Please indicate anticipated positions that will need to be filled in the future)

No faculty have been hired into this program at present as it is in the proposal/development phase. Initial faculty needs are addressed above.

40. Describe additional staff needed for this program (e.g. advising, professional development, program administration, academic coaching, etc.).

The program will require an administrative assistant III to manage the day-to-day programmatic needs (included in the budget under support personnel).

F3. Facilities

41. Where will the program be offered? Mark all that apply.
[X] Main Campus [ ] Satellite campus (specify campus here) [X] Other (There is a need for physical facilities to provide “hands on” training. Preliminary discussion with Edison Chouest Offshore and Fletcher Technical Community College suggests their willingness in providing the necessary facility(s) during the initial launch period of the degree program.
[ ]100% Online

42. What types of facilities are needed for the program? Fill out the chart below as applicable. Add lines under "other" as needed.

Space	New Space	Use Existing Space (as is)	Use Existing Space (Renovated)	Sem/Yr. of Occupancy
Dry Labs (STEM related)				
Wet Labs (STEM related)				
Dedicated Offices		X		Fall 2026
Fine Arts Spaces				
Classrooms	X		X	Fall 2026
Meeting Rooms				
Student Study Space				
Shared Space with other campus units				
Navigational Simulation Lab	X			Planning in Fall 2026; Up and running by Fall 2027.

43. Describe needs and costs for new or renovated facilities required for the program. Capital Costs for Needed Facilities and Space.

There are no anticipated costs for new or renovated facilities at this time.

Facility/Space Name	Gross Square Footage	Start Up Costs	Ongoing Costs	Est. Occupancy Date	Funding Source
New Construction					
N/A					
Renovations and Infrastructure*					
N/A					
Purchases: Land, Buildings etc.					
N/A					
Lease space					
N/A					
TOTAL Cost		**$0**	**$0**		

*Include the name of the building or location being impacted and what will need to be done. Infrastructure includes new systems such as: mechanical/electrical/plumbing, site utilizes, parking/drainage, IT networks, resiliency infrastructure, etc.

44. Discuss the impact of construction or renovation on existing campus activities and how disruptions will be mitigated. Explain how existing programs benefit from new facilities and/or space(s) and changes to existing space.

N/A

45. Will any existing programs be negatively impacted (e.g. lose classroom or office space) by proposed facility changes? If so, discuss how the impacts of these changes will be mitigated.

Existing programs are not expected to be negatively impacted.

46. Are there facility needs related to accreditation? Are there any accreditation standards or guidelines that will impact facilities/space needs now or in the future? If so, please describe the projected impact.

Training ships provide cadets with the ability to accumulate sea time and complete training exercises to obtain a license credential. Under the provisions of section 1304(c) of the Act, the Maritime Administrator may furnish any suitable vessel in order for cadets to achieve this. Training cruises are critical to ensure Midshipmen/Cadets obtain the necessary sea time to qualify to take the written examination to earn their USCG MMC.

Currently, each academy utilizes one of MARAD's existing training ships to perform sea cruises. Occasionally, academies share training ships when needed. https://www.maritime.dot.gov/education/maritime-academies/state-maritime-academy-support-program

It is also understood that maritime academies can partner with industry to use ships for necessary training.

F4. Technology and Equipment

47. Identify any major equipment or technology integral to program implementation and sustainability. List equipment or assets over $5,000 (cumulative per asset) needed to start-up and run the program.

Technology and Equipment	Start-up Costs	On-going Costs	Est. Start Date of Operations/Use
Navigational Simulator	2,000,000.00		Fall 2027
Total Technology and Equipment Costs	**0**	**0**	

MARAD provides ships from the National Defense Reserve Fleet (NDRF) as training vessels for state maritime academies. The agency is currently working to replace these older ships with new, purpose-built training vessels that will better meet the training needs of the academies while also providing the U.S. with ships that can support disaster response and other critical national needs.
https://www.maritime.dot.gov/national-security/nsmv-%E2%80%93-national-security-multi-mission-vessels

U.S. Department of Transportation (DOT) through the Maritime Administration (MARAD) provides various types of financial assistance to support the six State Maritime Academies (SMAs). This support includes student incentive payments, workforce development, direct payments, supply of training ships, fuel reimbursement payments, ship sharing funds, maintenance and repair funding, the vessel operations revolving fund, and special projects such as the National Security Multi-Mission Vessel Program (NSMV)
https://www.maritime.dot.gov/education/maritime-academies/state-maritime-academy-support-program

As a means of reducing startup costs, the program will seek to partner with industry for access to training vessels. Preliminary/informal discussions have been initiated.

G. RISKS AND ASSUMPTIONS

48. In the table below, list any risks to the program's implementation over the next four years. For each risk, identify the impact (low, medium, high), probability of occurrence (low, medium, high), and the institution's mitigation strategy for each risk. Insert additional rows as needed. (e.g. Are faculty available for the cost and time frame).

Risk	Impact	Probability	Risk Mitigation Strategy
Sufficient Program Faculty	high	medium	Engage with those in the industry who are qualified and considering retirement from the active workforce, or those who are looking for a change in career path.
Student interest in program	high	low	A sufficient runway to program implementation that allows for intensive promotion of the degree, beginning with high school sophomores through high school seniors, can mitigate this risk.
Funding for the program	high	low	As this is a statewide initiative that has not only local, but national, impact with wide interest at both levels; and as this initiative is backed by legislative intent; it is expected that funding will be made available to implement the program.

SUMMARY OF ESTIMATED ADDITIONAL COSTS/INCOME FOR PROPOSED PROGRAM

Institution: Nicholls State University **Date: October 2024**

Degree Program, Unit: Bachelor of Science in Marine Transportation

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

EXPENDITURES								
INDICATE ACADEMIC YEAR:	**FIRST**		**SECOND**		**THIRD**		**FOURTH**	
	AMOUNT	**FTE**	**Amount**	**FTE**	**AMOUNT**	**FTE**	**AMOUNT**	**FTE**
Faculty	266,000	2	392,000	3	392,000	3	518,000	4
Graduate Assistants								
Support Personnel	36,400	1	36,400	1	36,400	1	36,400	1
Fellowships and Scholarships								
SUB-TOTAL	$302,400	3	$428,400	4	$428,400	4	$554,400	5
	AMOUNT		**AMOUNT**		**AMOUNT**		**AMOUNT**	
Facilities	$		$		$		$	
Equipment			2,000,000.00					
Travel	10,000		10,000		10,000		10,000	
Supplies	2,000		2,000		2,000		2,000	
Other (specify)								
SUB-TOTAL	$12,000		$12,000		$12,000		$12,000	
TOTAL EXPENSES	$314,400		$2,440,400		$440,400		$566,400	
REVENUES								
Revenue Anticipated From:	**AMOUNT**		**AMOUNT**		**AMOUNT**		**AMOUNT**	
*State Appropriations	$1,000,000.00		$		$		$	
*Federal Grants/Contracts	$2,000.000.00							
*State Grants/Contracts								
*Private Grants/Contracts								
Expected Enrollment	15		30		45		60	
Tuition	84,622.20		169,244.40		253,866.60		338,488.80	
Fees	78,165.30		156,330.60		234,495.90		312,661.20	
*Other (Grad App)							360.00	
TOTAL REVENUES	$3,162,787.50		$325,575.00		$488,362.50		$651,509.20	

* Describe/explain expected sources of funds in proposal text.