



**Marine Mammal Science
New College of Florida
45.0102**

**Board of Governors
Staff Analysis**

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March 2024

Program Description and Overview

The New College of Florida (New College) is proposing a Master of Science (M.S.) in Marine Mammal Science, CIP 45.0102. The proposed master's program is a unique interdisciplinary program designed to teach students the skills to study marine mammals in a multidisciplinary way. The proposed program will provide individuals with the skills needed to pursue careers in conservation biology, ecology, data analysis, and research design related to marine mammals. Students will be provided opportunities to enroll in research methods courses, conduct publication-quality research, and participate in internship experiences alongside industry partners in marine wildlife conservation. The program was approved by the New College Board of Trustees on February 22, 2024. If approved by the Board of Governors, the proposed M.S. in Marine Mammal Science will be the first program in the System in CIP 45.0102. Table 1 provides a summary overview of the M.S. in Marine Mammal Science.

Table 1: Proposed Program Summary

M.S. Marine Mammal Science	
Tuition per Credit Hour	\$ 474.33 Florida Resident \$1,169.47 Non-Resident
Delivery Mode	Face-to-Face
Location	Main Campus
Graduation Requirements	48 Credit Hours & Thesis

Need for Graduates in the Labor Market

The proposed program offers an interdisciplinary course of study that will equip graduates with the skills necessary for jobs such as survey researchers, conservation scientists, and natural science managers. The program will prepare graduates with the knowledge and skills in marine mammal research and analysis. Table 2 provides information on the labor market demand for these occupations from the U.S. Bureau of Labor Statistics (BLS) and the Florida Department of Commerce (Florida Commerce).

The workforce demand across the occupations of survey researchers, conservation scientists, and natural science managers shows a faster growth in Florida than at the national level. As shown in Table 2, the number of jobs for survey researchers in Florida is projected to grow by 11 percent over the next eight years, with an average of 77 job openings each year. Similar to survey researchers, both jobs for conservation scientists and natural science managers are projected to grow by more than five percent over the next eight years.

Table 2: Labor Market Demand

Occupations	Percent Change in Job Openings		Annual Average Job Openings		Total # of New Jobs		Education Level Needed for Entry
	FL 2023-31	U.S. 2022-32	FL 2023-31	U.S. 2022-32	FL 2023-31	U.S. 2022-32	
Survey Researchers	11%	-3.8%	77	700	77	-300	Master's
Conservation Scientists ¹	5.5%	4.1%	81	2,100	45	1,000	Bachelor's
Natural Science Managers ¹	8.7%	4.8%	373	6,500	347	4,200	Bachelor's & experience

¹ These occupations are not included in the CIP to SOC Crosswalk, but the proposed program's learning outcomes may prepare graduates to pursue jobs in those areas.

Sources:

Date Retrieved: 3/12/2024

Florida CIP SOC Crosswalk

U.S. Bureau of Labor Statistics - <https://data.bls.gov/projections/occupationProjections>

Florida Department of Commerce - <http://www.floridajobs.org/labor-market-information/data-center/statistical-programs/employment-projections>

Student Demand and Projected Enrollment

New College anticipates enrolling ten students in the first year of the program and growing incrementally in the first five years to an enrollment of more than 60 students, as shown in Table 3. The student demand for the proposed master's program is supported by New College's existing undergraduate programs. In the 2022-2023 Academic Year, New College's undergraduate programs in Biology, Marine Biology, and Psychology had more than 500 students enrolled in courses, with 70 students completing independent study projects, and 42 students completing theses in these areas. In fall 2023, 26 students enrolled in the marine mammal biology course, more than the average New College class size of 11 students. New College also anticipates enrolling graduates from other state universities and international students a few years after implementing the program. New College reported that faculty have received requests from students at other schools about the proposed graduate program.

Table 3: Projected Student Enrollment

	Student Headcount	Student FTE
Year 1	10	10
Year 2	24	24
Year 3	39	32
Year 4	48	40
Year 5	62	50

Source: New College of Florida M.S. in Marine Mammal Science Proposal.

Alignment with Institutional and System Strategic Priorities

The proposed M.S. in Marine Mammal Science directly supports New College's mission to provide high-quality liberal arts education in the context of a small, residential, public honors college that encourages students to balance critical thinking skills with applied knowledge and innovative research.

The proposed program aligns with the Board of Governors' 2025 Strategic Plan. New College expects the program to provide an opportunity to attract more external funding and increase research activity. New College reported that faculty have a grant from the Office of Naval Research that could support future research efforts by graduate students and faculty in the proposed program. New College anticipates that future research will also build upon external funding from entities such as the National Oceanic Atmospheric Administration, the Fish and Wildlife Research Institute, and the Sarasota Dolphin Research Program.

The proposed program will also increase community and business engagement and help meet workforce demand. Collaboration with the Sarasota Dolphin Research Program will help solidify Sarasota's position as an educational destination for marine mammal science researchers. In addition, faculty at New College and the University of Florida (UF) have discussed collaboration with UF's Aquatic Animal Health Program, the potential of creating a state of Florida institute, and the initiation of a Manatee Research and Conservation Consortium. These collaborations include teaching, research, and service opportunities.

Estimate of Investment

The proposed program will be primarily funded through Education and General funds, and use existing grants and endowment funds. As shown in Table 4, the program's total cost in Year 1 is \$1,661,920 and \$2,606,590 in Year 5. The program will charge students the standard graduate tuition rate, which is currently \$474.33 per credit hour for resident students and \$1,169.47 for non-resident students.

Table 4: Projected Program Costs

Total Costs		Source			Cost per FTE
		E&G	Contracts & Grants	Philanthropy & Endowment	
Year 1	\$1,661,920	\$1,311,920	\$250,000	\$100,000	\$131,192
Year 5	\$2,606,590	\$1,456,590	\$750,000	\$400,000	\$29,131

Source: New College of Florida M.S. in Marine Mammal Science Proposal.

Appendix A

Assessment of the University Review Process in accordance with Board of Governors Regulation 8.011

Prior to submitting a program proposal to the Board of Governors' office, the institution and its Board of trustees are required to ensure that all programs meet the requirements of Board of Governors Regulation 8.011. Section C is an assessment of the university's review process to ensure that all criteria have been considered.

ACCOUNTABILITY

Check either the "yes" or "no" box and make comments beneath the criterion as appropriate.

1. **Overall** – *The proposal is in the correct format, includes all necessary signatures, and contains complete and accurate tables for enrollment projections, faculty effort, and the proposed budget.*

YES NO

- ☒ ☐ **The proposal has been approved by the university board of trustees and includes all required signatures.**

The program proposal was approved by the Board of Trustees at the meeting on February 22, 2024.

- ☒ ☐ **The university has provided a proposal written in the standard State University System format, which addresses new academic program approval criteria outlined in Board of Governors Regulation 8.011.**

The institution submitted the proposed program in the correct format.

- ☒ ☐ **The pre-proposal was reviewed by the Council of Academic Vice Presidents Academic Coordination Group, and any concerns identified by the group have been listed and addressed in the proposal.**

The Council of Academic Vice Presidents Academic Coordination Group reviewed the pre-proposal on September 13, 2023. No concerns were expressed.

- ☒ ☐ **The university has provided data that supports the need for an additional program in the State University System, as well as letters of support or concern from the provosts of other state universities with substantially similar programs.**

The proposed master's program will be the first program in the System in CIP 45.0102.

- ☒ ☐ **The university has provided complete and accurate projected enrollment, faculty effort, and budget tables that are in alignment with each other.**

New College submitted all required tables in Appendix A of the proposal.

- ☒ ☐ **The university has included a statement in the proposal signed by the equity officer as to how this proposal will meet the need and demand section of the proposal.**

The proposal was signed by the equity officer regarding the review of the need and demand section of the proposal.

- ☒ ☐ **The program does not substantially duplicate programs at FAMU, if it does, evidence was provided that consultations have occurred with the university on the impact of the new program on existing programs.**

The proposed program does not duplicate an existing program at Florida Agricultural and Mechanical University.

2. Budget – *The proposal presents a complete and realistic budget for the program consistent with university and Board of Governors policy and shows that any redirection of funding will not have an unjustified negative impact on other needed programs.*

YES NO

- ☒ ☐ **The University Board of Trustees has approved the most recent budget for this proposal.**

The budget for the proposed program was approved in conjunction with the full proposal by the Board of Trustees on February 22, 2024

- ☒ ☐ **The university has reviewed the budget for the program to ensure that it is complete and reasonable, and the budget appears to align with expenditures by similar programs at other system institutions.**

The cost per FTE for the proposed program is higher than the 2021-2022 SUS expenditure analysis for graduate programs in the CIP 45 family.

- ☐ ☒ **The proposal indicates that the program will follow the cost-recovery or market-rate funding models. If so, details and timelines for getting approvals for these funding models are included in the proposal.**

The proposed program will not operate using a cost-recovery or market-rate funding model. It will utilize E&G funding for the program.

- ☒ ☐ **If resources within the institution are redirected to support the new program, the university has identified this redirection and determined that it will not negatively impact undergraduate education, or the university has provided a reasonable explanation for any impact of this redirection.**

The institution anticipates that implementation of the program will yield no negative impact on related programs.

READINESS

Check either the "yes" or "no" box and make comments beneath the criterion as appropriate.

3. Program Quality – *The proposal provides evidence that the university planning activities have been sufficient, and responses to any recommendations to program reviews or accreditation activities in the discipline pertinent to the proposed program have been addressed.*

YES NO

- ☒ ☐ **The university has followed a collaborative planning process for the proposed program in accordance with policies and procedures adopted by the university board of trustees.**

The institution provided a narrative and chronological table of events that occurred during the development of the proposal, as well as a list of the campus constituents involved. The institution also provided a table of events necessary to implement the proposed program.

- ☐ ☒ **An external consultant has reviewed the proposal and supports the department's capability of successfully implementing this new program.**

The proposed program is a master's program and does not require a review by an external consultant.

- ☒ ☐ **The university has found the level of progress that the department has made in implementing the recommendations from program reviews or accreditation activities in the discipline pertinent to the proposed program to be satisfactory.**

The program created a detailed assessment plan and outlined efforts to develop an advisory board based on SACSCOC's previous recommendations for the M.S. in the Applied Data Science program.

- ☐ ☒ **The university has analyzed the feasibility of providing all or a portion of the proposed program through distance learning.**

The program will be offered through traditional delivery on the main campus.

- ☐ ☒ **If necessary, the university has made allowances for licensure and legislative approval to be obtained in a timely manner.**

No applicable licensure or legislative approval is required for the proposed program.

4. Curriculum - *The proposal provides evidence that the university has evaluated the proposed curriculum and found that it describes an appropriate and sequenced course of study and that the university has evaluated the appropriateness of specialized accreditation for the program.*

YES NO

- ☒ ☐ **The university has reviewed the curriculum and found that the course of study presented is appropriate to meet specific learning outcomes and industry-driven competencies discussed in the proposal.**

The institution has provided the curriculum for the proposed program, and the coursework is designed to meet the learning outcomes for the degree.

- ☒ ☐ **The university anticipates seeking accreditation for the proposed doctoral program or provides a reasonable explanation as to why accreditation is not being sought.**

No specialized accrediting bodies are available for graduate programs in Marine Mammal Science.

5. Faculty – *The proposal provides evidence that the university is prepared to ensure a critical mass of faculty will be available to initiate the program based on estimated enrollments and that faculty, in the aggregate, have the necessary experience and research activity to sustain a doctoral program.*

YES NO

- ☒ ☐ **The university has reviewed the evidence provided and found that there is a critical mass of faculty available to initiate the program based on estimated enrollments.**

The institution has identified four existing faculty members who will participate in the proposed program. The institution will hire two additional faculty members in fall 2024 and 2025.

- ☒ ☐ **The university has reviewed the evidence provided and found that the faculty, in aggregate, has the necessary experience and research activity to sustain the program.**

The institution reviewed the credentials of all faculty members participating in the program, and their curriculum vitae were included with the proposal.

- ☒ ☐ **The university has reviewed the evidence provided and found the academic unit(s) associated with this new degree to be productive in teaching, research, and service.**

The institution provided multiple examples showing that the academic unit associated with the proposed degree program has been productive in teaching, research, and service.

- ☒ ☐ **If appropriate, the university has committed to hiring additional faculty in later years based on estimated enrollments.**

The institution will hire two additional faculty members in fall 2024 and 2025.

6. Resources – *The proposal provides evidence that the university has ensured the available library volumes and serials, classroom, teaching laboratory, research laboratory, office space, equipment, clinical and internship sites, fellowships, scholarships, and graduate assistantships will be sufficient to initiate the program, and that, if applicable, funding has been secured to make more resources available as students proceed through the program.*

YES NO

- ☒ ☐ **The university has provided a signed statement from the library director verifying that the library volumes and serials available are sufficient to initiate the program.**

The library director signed the proposal on January 29, 2024.

- ☒ ☐ **The university has ensured that the physical space necessary for the proposed program, including classrooms, laboratories, and office space, is sufficient to initiate the program.**

The institution provided descriptions of the physical spaces available to the program. The program has adequate space to implement and sustain the proposed program through year five.

- ☒ ☐ **The university has ensured that the necessary equipment is available to initiate the program.**

New College has provided examples of equipment that is available to support the proposed program's instruction and research.

- ☒ ☐ **The university has ensured that fellowships, scholarships, and graduate assistantships are sufficient to initiate the program.**

Tuition scholarships for 20 students are included in the budget. The New College Foundation will provide \$100,000 for scholarships in year one and \$400,000 in year five. Research assistantships will be supported through grants and partnerships. Teaching assistantships in the New College undergraduate program will also be available to support graduate students.

- ☒ ☐ **If applicable, the university has ensured that the department has arranged a suitable number of clinical and internship sites.**

The university reported the possibility of expanding internship opportunities with the Florida Fish and Wildlife Research Institute, the Clearwater Marine Aquarium, zoos, and the Sarasota Dolphin Research Program.



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