



Graduate Board
Thursday, October 27, 2022
48 Stodder Hall
Or by Zoom:

[Join Zoom Meeting](#)

ID: 82686859002

Passcode: 098222

3:00-4:30 pm

AGENDA

1. Review/approval of October 4, 2022 Curriculum Committee report
2. Announcements/updates
 - Graduate enrollment update
 - Graduate School staffing update
 - Graduate School financial awards
 - Centennial planning
 - Upcoming assessment workshops (registration link: <https://umaine.edu/oira/graduate-workshops/>):
 - i. Curriculum Mapping, November 1, 12-1pm
 - ii. Assessment Planning, November 9, 11am-12pm
3. Guests: Orlina Boteva and Sarah Joughin from the Office of International Programs (conditional admission and supporting the international student community)
4. Substantive change proposals for MEd and EdD programs in Educational Leadership
5. Proposal for a new MBA concentration entitled *Blue Economy*
6. Managing international graduate applicants (discussion)
See [Graduate School FAQs](#)
7. Needs assessment survey for a low residency doctoral program intended for MS faculty/staff
8. Items arising

CURRICULUM COMMITTEE REPORT

The Curriculum Committee met on October 4th, 2022 and is recommending the following courses to the Graduate Board for approval at its October 27th meeting.

New Courses:

HUD 505 Infant and Toddler Development

KPE 511 Acute and Emergency Care

KPE 521 Clinical Evaluation I

MEE 591 Offshore Wind Farm Engineering

August 25, 2022

Dear Executive Vice President for Academic Affairs and Provost Volin and Associate Vice President for Graduate Studies and Senior Associate Dean Delcourt:

I am writing to fully support the Educational Leadership program's plan to offer their Doctor of Education (Ed.D.) and Master of Education (M.Ed.) programs entirely online. They are currently delivered in a blended on-campus/online format. This change to a synchronous online modality will build upon each program's success and positive student feedback during the COVID-19 pandemic.

Maine's well-documented need to develop more educational leaders has further increased dramatically in the past few years. Recent estimates indicate that approximately 40% of K-12 building and district-level administrators will leave the field over the next three years. In addition, 76% of Maine's school districts meet the NCES criteria for classification as rural. These fully online programs will be exceptionally well suited to address the need for well-trained educational leaders and will allow UMaine to continue to be Maine's leading preparer of highly qualified educational leaders. Further, the practice-oriented research conducted by Ed.D. candidates plays a key role in informing and improving K-12 education in our state. The fully online modality will help fill this need regardless of geography, including our most rural and isolated areas.

I would be pleased to discuss this issue in further detail, should the need arise. Please contact me if more information would be helpful

Sincerely,



Penny A. Bishop
Dean and Professor of Education

UNIVERSITY OF MAINE SYSTEM
SUBSTANTIVE CHANGE TO AN EXISTING DEGREE PROGRAM

____ Graduate
____ Two-Year
____ Four-Year

University of Maine

1. **Title Degree:** Master of Education (MEd)
Area: Educational Leadership
CIP Code:

2. **Person Responsible for Planning**

Name: Maria Frankland
Address: 336 Merrill Hall

Department: Educational Leadership
Telephone Number: 581-2738

3. **General Objective of Proposal:** To shift our MEd in Educational Leadership program to a fully online modality.

4. **Documented Evidence of Need:** The COVID-19 pandemic exacerbated the shortage of qualified teachers and educational leaders in Maine and nationwide. Over the next three years, 40% of building principals and district superintendents are expected to leave the profession. The development of a pipeline of educational leaders is essential to ensure that K-12 students are not negatively impacted by the departure of current building leaders.

By offering the MEd in Educational Leadership online, the University of Maine will increase access to educators seeking their Master’s degree in Educational Leadership regardless of their geographical location.

5. **A. Which campuses, agencies, organizations, institutions or individuals have you involved in the program?**

<u>Name</u>	<u>Address</u>	<u>Individual Contact</u>	<u>Title</u>
Amanda Cupps,	UMaine Online Advisor,	University of Maine	
Fiona Libby,	Director of Graduate Recruitment,	University of Maine	
Crystal Burgess,	Director of Graduate Communications,	University of Maine	

B. Which campuses, agencies, organizations, institutions or individuals do you plan to involve in the program?

<u>Name</u>	<u>Address</u>	<u>Individual Contact</u>	<u>Title</u>
Betsy Webb,	Penobscot River Educational Partnership (PREP) Administrator		

Eileen King, Executive Director of Maine State Superintendent's Association
(MSSA)

C. How? Our programs are designed to meet the needs of working educators. The support of superintendents is essential not only for the successful completion of students' coursework—which relies heavily on access to educational settings and data for which superintendents are the gatekeepers—but also because many districts provide funding that supports teacher pursuit of advanced degrees. The University of Maine Educational Leadership program has close working relationships with PREP and MSSA, which we plan to continue and strengthen.

6. What type and/or extent of support is presently available?

A. Personnel: We are able to meet the needs of this program with our current faculty: two tenured associate professors, one tenure-track assistant professor, one lecturer, and one Libra professor.

B. Facilities: All of the courses are already being taught in a fully online format.

C. Equipment

D. Funding Sources

E. Library Resources

F. Other

G. What additional new costs are required in any or all of the above categories? Not applicable.

7. **Briefly describe preliminary plans for regular program evaluations, formative and summative.** Formative: student evaluations will continue to be used as feedback. Summative: we are currently evaluating the potential benefits of CAEP accreditation.
8. **Time Frame**
Estimated Planning Time: currently ongoing
Estimated Implementation Time: Fall 2022
Estimate of Program Lifetime: Given the ongoing nature of the need for educational leaders and scholarly practitioners, the program will be viable for the foreseeable future.
9. **COMPLETE FOR GRADUATE PROGRAM ONLY: On what other campus, if any, will this program be available? What plans are there to insure transferability from other campuses into this program or to deliver this program to other campuses?** The program will not be available on other campuses but will be available to students statewide.
10. **Other Pertinent Data and/or Information**
Increased access to the University of Maine Educational Leadership programs is having a positive effect on recruitment. We have decreased the time interval between new cohorts and expect our programs to continue on a positive growth trajectory.

11. Submitted By:

Marie Smith 8/19/2022
(Signatures of Person(s) Responsible for Program Plan)
(Date)

Approved By:

Penny Storz 8.25.22
(College Dean)
(Date)

Hannah Carter 10/25/2022
(Associate Provost for Lifelong Learning)
(Date)

(VP for Research and Dean of the Graduate School)
(Date)

(Provost)
(Date)

(President)
(Date)

UNIVERSITY OF MAINE SYSTEM
SUBSTANTIVE CHANGE TO AN EXISTING DEGREE PROGRAM

____ Graduate
____ Two-Year
____ Four-Year

University of Maine

1. **Title Degree:** Doctor of Education (EdD)
Area: Educational Leadership
CIP Code:

2. **Person Responsible for Planning**
Name: Maria Frankland **Department:** Educational Leadership
Address: 336 Merrill Hall **Telephone Number:** 581-2738

3. **General Objective of Proposal:** To shift our EdD in Educational Leadership program to a fully online modality.

4. **Documented Evidence of Need:** The COVID-19 pandemic impacted K-12 education in unprecedented ways, including trauma and learning loss for students and the early departure from the field of building and district level leaders. The work of scholarly practitioners in schools is essential to the mitigation of these effects.

By offering the EdD in Educational Leadership online, the University of Maine will fill the need for scholarly practitioners by ensuring access to our Doctorate in Educational Leadership program regardless of the applicant's geographical location.

5. **A. Which campuses, agencies, organizations, institutions or individuals have you involved in the program?**

<u>Name</u>	<u>Address</u>	<u>Individual Contact</u>	<u>Title</u>
Amanda Cupps,	UMaine Online Advisor,	University of Maine	
Fiona Libby,	Director of Graduate Recruitment,	University of Maine	
Crystal Burgess,	Director of Graduate Communications,	University of Maine	

- B. Which campuses, agencies, organizations, institutions or individuals do you plan to involve in the program?**

<u>Name</u>	<u>Address</u>	<u>Individual Contact</u>	<u>Title</u>
Betsy Webb,	Penobscot River Educational Partnership (PREP)	Administrator	
Eileen King,	Executive Director of Maine State Superintendent's Association (MSSA)		

C. How? Our programs are designed to meet the needs of working educators. The support of superintendents is essential not only for the successful completion of students' coursework—which relies heavily on access to educational settings and data for which superintendents are the gatekeepers—but also because many districts provide funding that supports teacher pursuit of advanced degrees. The University of Maine Educational Leadership program has close working relationships with PREP and MSSA, which we plan to continue and strengthen.

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A. Personnel: We are able to meet the needs of this program with our current faculty: two tenured associate professors, one tenure-track assistant professor, one lecturer, and one Libra professor.

B. Facilities: All of the courses are already being taught in a fully online format.

C. Equipment

D. Funding Sources

E. Library Resources

F. Other

G. What additional new costs are required in any or all of the above categories? Not applicable

7. **Briefly describe preliminary plans for regular program evaluations, formative and summative.** Formative: student evaluations will continue to be used as feedback. Summative: we are currently evaluating the potential benefits of CAEP accreditation.

8. **Time Frame**
Estimated Planning Time: currently ongoing
Estimated Implementation Time: Fall 2022
Estimate of Program Lifetime: Given the ongoing nature of the need for educational leaders and scholarly practitioners, the program will be viable for the foreseeable future.

9. **COMPLETE FOR GRADUATE PROGRAM ONLY: On what other campus, if any, will this program be available? What plans are there to insure transferability from other campuses into this program or to deliver this program to other campuses?** The program will not be available on other campuses but will be available to students statewide.

10. **Other Pertinent Data and/or Information** Increased access to the University of Maine Educational Leadership programs is having a positive effect on recruitment. We have decreased the time interval between new cohorts and expect our programs to continue on a positive growth trajectory.

11. Submitted By:

Marie L. Smith 05/19/2022
(Signatures of Person(s) Responsible for Program Plan)
(Date)

Approved By:

Penny H. King 8.25.22
(College Dean)
(Date)

Hannah Carter 10/25/2022
(Associate Provost for Lifelong Learning)
(Date)

(VP for Research and Dean of the Graduate School)
(Date)

(Provost)
(Date)

(President)
(Date)

Graduate School of Business



705 Law Building
P.O. Box 9300
Portland, ME
04104-9300

MEMO

To: Graduate School of Business Curriculum Committee

From: Norm O'Reilly, Dean, Graduate School of Business, and Heather Leslie, Director, Darling Marine Center & Professor, School of Marine Sciences

Subject: Proposal for a new MaineMBA Concentration in the **"University of Maine Blue Economy MBA": Aquaculture, Fisheries & the Environment**
(i.e., Maine's Blue Economy MBA)

Date: December, 2021

The Graduate School of Business proposes to establish a Blue Economy concentration within the University of Maine Master of Business Administration (MaineMBA) degree. This would be in addition to the MBA concentrations that already exist.

Rationale

The University of Maine Blue Economy MBA concentration within the MBA will deliver graduate level professional education opportunities pairing the curriculum of the MaineMBA with the skills and knowledge necessary for a career in the rapidly growing blue economy sectors, including but not limited to aquaculture, fisheries, biotechnology, and ocean renewable energy, thanks to an interdisciplinary partnership between the University of Maine's Graduate School of Business and School of Marine Sciences, with support from the Darling Marine Center, Aquaculture Research Institute, and allied units. This concentration is designed for individuals pursuing executive-level positions in occupations such as seafood processing and supply chain management, community and economic development, energy and environmental planning, as well as administrative careers in the biological, physical and social sciences.

More than 10,000 people are directly engaged in the harvest and farming of seafood in Maine, according to information from the Maine Department of Marine Resources. Hundreds of new jobs related to aquaculture alone are projected to result in the next decade due to the growth of established farms and new development. Anticipated growth in the ocean renewable energy sector and emerging development trends in Maine coastal counties suggest the workforce, technical and scientific needs to sustain the blue economy will continue to grow. It is expected

that new ventures, start-ups and expanding SMEs (small and medium sized enterprises) will result from this growth.

The MaineMBA has seen a 300% increase in enrollment since 2016, is accredited by AACSB and ranked by U.S. News and World Report, Fortune and CEO Magazine. The University of Maine Blue Economy MBA builds on more than 55 years of creative collaboration at the Darling Marine Center among scientists, entrepreneurs, and other professionals, and will enable UMaine to deepen partnerships among science and business experts while enhancing UMaine's contributions to fisheries, aquaculture, and other blue economy industries of the state.

This proposal has been reviewed by:

- Done - The Associate Director of the School of Marine Sciences, Wge Ellis
- Done - The Director of the School of Marine Sciences, David Townsend
- Done - Associate Director of the School of Marine Sciences, Heather Hamlin
- The Director of the Aquaculture Research Institute, Deborah Bouchard
- The Dean of the College of Natural Sciences, Forestry, and Agriculture, Diane Rowland
- The Curriculum Committee of the Graduate School of Business
- The faculty of the Graduate School of Business
- The Dean of the Maine Business School
- The Dean, Associate Dean and Assistant Dean of the Graduate School of Business
- The Provost



Norm O'Reilly

Dean, Graduate School of Business

**University of Maine Graduate School of Business
Proposal for the University of Maine Blue Economy MBA concentration**

Proposal Contents

1. Academic Program Alignment
2. Program Description
3. Learning outcomes
4. Admission Requirements
5. Completion Requirements
6. Course Descriptions

1. Academic Program Alignment

Mission and Goals

The University of Maine Blue Economy MBA concentration will be led jointly by the Graduate School of Business and School of Marine Sciences, and draw upon UMaine and partner assets statewide, including the Darling Marine Center in Walpole. The concentration will leverage courses and expertise from multiple academic units and research centers at the University of Maine in industries and communities of high importance to the state.

The new concentration is well aligned with the University of Maine's Strategic Vision and Values, the Unified Accreditation for the University of Maine System, the UMS TRANSFORMS Initiative, and the University-wide commitment to developing interdisciplinary programs that cross institutional and disciplinary boundaries.

This program supports the mission and goals of the University of Maine by preparing students for successful careers in Business Administration and related areas with expertise in applying knowledge of marine science, technology, engineering and its applications to address complex business questions and industry challenges. This program will enhance the skills and marketability of MaineMBA graduates particularly interested in contributing to aquaculture, fisheries and sustainable seafood-oriented business solutions and community and economic development programs - including those linked with ocean renewable energy - from the local to the state and national scales, both in the United States and globally. These contributions will be provided to large and small organizations, as well as start-up ventures.

Program Demand

Blue economy related positions are diverse, including those related to the seafood sector, e.g., Aquaculture Technician, Aquaculture Farm Manager, Research Associate; fisheries management and policy, e.g., Data Scientist and Policy Analyst, other marine economy-linked positions in diverse food, energy, and environmental industries. Graduates will be prepared for mid-level professional and executive positions at government, non-profit and private sector organizations, e.g., Program Manager, Project Coordinator, Operations Manager, Logistics Manager, Community/Urban Planner, Urban Planner, Management Analyst, Marketing Coordinator, Event Manager, Chief Financial Officer, Chief Operations Officer, and Executive Director/President.

Program Resource Needs

The concentration course sequence is currently being delivered by units across the University – no new courses need to be developed to launch this new concentration. The courses are coordinated through their academic home department, School of Marine Sciences (SMS), and SMS also will provide the administrative support to enable continued delivery of these courses.

Delivery Modalities

Concentration courses are primarily delivered as synchronous online multicampus offerings. SMS graduate students have been effectively trained via videoconference and blended

multicampus courses for more than 20 years, as they are distributed statewide, as are faculty in the School of Marine Sciences, the academic home for the existing courses that will be leveraged to deliver this concentration.

The optional internship course will be co-designed by the student and co-advisors and may be completed either in person or virtually. Note that three credit hours is equivalent to 135 internship hours, including both interactions with the host organization, the co-advisors, and independent work related to the internship. The distribution of these hours, e.g., over three summer months or the semester, will be determined in consultation with the co-advisors.

2. Program Description

The Blue Economy MBA will deliver graduate level professional education opportunities pairing the curriculum of the MaineMBA core and the concentration providing the skills and knowledge necessary for a career in the rapidly growing sectors of Aquaculture, Fisheries, Food Processing, Environmental Management and Ocean Renewable Energy, among others.

Our program is distinct from those offered by peer institutions, and is tailored to the needs of the diverse student population who are enrolled in the MaineMBA:

- It is an online MBA, designed for working professionals. Students from across the nation and world pursue a Master in Business Administration, a degree that opens a wide array of professional opportunities in the nonprofit, government and private sector.
- The concentration provides students the opportunity to get their hands wet, literally. They choose one of three immersive experiences in research, produce and business development and commercialization at the University of Maine's marine laboratory, Darling Marine Center. This low-residency opportunity is accessible not only to those who live in Maine, but also those who wish to connect with the concentration and UMaine through a targeted trip during the most popular season, summer.
- Through short courses and internship opportunities (with flexible timing, available both in the summer as well as during the academic year), Blue Economy MBA students will have opportunities to engage in collaborative research, product development and commercialization efforts with researchers and blue economy professionals working with a diversity of species, including shellfish, seaweed, and finfish; industries (e.g., fisheries, aquaculture, seafood processing, and biotechnology, and ocean energy); and geographies (diverse rural and urban locations along Maine's more than 3500 mile coastline).
- Hands-on concentration experiences are complemented by synchronous and asynchronous online courses, where MBA students learn from some of the world's foremost marine scientists about the environmental, health, and community development dimensions of the blue economy.

Peer Programs of the proposed concentration include:

- a. University of Alaska Fairbanks: UAF STEM Blue MBA (30 credits – online and asynchronous MBA degree)

- b. University of New England: Ocean Food Systems Professional Science Masters (PSM) (36+ credits – low residency)
- c. University of Rhode Island: Blue MBA (F2F courses leading to two degrees: Master of Business Administration (MBA) with the Master of Oceanography (MO). It is designed for students with a physical science, natural science, or engineering undergraduate degree who want to develop their management skills and broaden their marketability.

3. Program Learning Outcomes:

Upon completion of the concentration, learners will:

- Apply knowledge of the environmental and human dimensions of aquaculture, fisheries, ocean energy and other blue economy-related research areas and applications, as well as the diversity of species and ecosystems and governance, food and energy production systems employed globally by blue economy sectors.
- Demonstrate their mastery of this interdisciplinary knowledge through project-based collaborative opportunities relevant to community and economic development from the firm to regional scales.

4. Admission Requirements

Admission to this University of Maine Blue Economy MBA concentration will be the same as general MBA admission, with admission requirements as follows:

- Undergraduate GPA above 3.0
- GMAT scores above 500 or 5+ years professional or military experience
- Satisfactory TOEFL/IELTS scores
- Completed application with supplemental documentation and fees
- Foundational skills in Economics, Accounting, Finance and Statistics

5. Completion Requirements

MaineMBA learners pursuing this concentration will complete:

24 credits (8 courses) from the MaineMBA Core:

1. BUA 601: Strategic Data Analysis
2. MBA 609: Financial Statement Analysis
3. MBA 626 Management of Contemporary Organizations
4. MBA 637: Global Supply Chain Management
5. MBA 651: Financial Management

6. MBA 670: Managerial Marketing
7. BUA 680: Foundations of Business Intelligence
8. MBA 649: Strategic Decision Making

9 Credits of Concentration Courses:

1. SMS 500: Marine Biology (4 credits, synchronous multicampus online course)
or
SMS 544: Oceanography and Natural History of the Gulf of Maine
(3 credits, offered in Orono with a synchronous online option)
2. SMS 563: Fisheries Policy and Management (3 credit course offered in Orono with a synchronous online option)
or
ECO/SMS 564 - Marine Resource Management (3 credit course offered online by the School of Economics).
3. SMS 598: SMS 598 Applied Methods in Shellfish Farming (3 credit hybrid course, with virtual modules and a 5-day residency at the Darling Marine Center (DMC) in Walpole)
or
SMS 598: Aquaculture (3 credit, semester in-person course at the DMC)
or
SMS 683: Internship in Marine Policy (3-credit internship at the DMC or another blue economy site, co-advised by a UMaine faculty member and a government, industry or community partner. May be conducted either in-person or virtually)

6. Concentration Course Descriptions and links to the concentration learning goals (also see attached syllabi)

LEARNING GOAL 1 LINK: The first concentration course (SMS 500 OR 544) provides students with knowledge of the environmental context within which blue economy activities, e.g., aquaculture, fisheries, ocean energy occur, as well as the diversity of species and ecosystems, relevant to thriving blue economy sectors.

SMS 500 Marine Biology (4 credits). Examines the biology of marine organisms including their diversity, distribution, form, and function within a broader context of evolutionary adaptation to the marine environment. Emphasizes scaling of physiological and ecological processes and the biology of acclimation and adaptation in representative marine taxa including microbes, primary producers, invertebrates, fishes, and marine mammals. Includes one weekend field trip to Darling Marine Center. Required for Marine Biology graduate students. Open to other graduate students in related disciplines and exceptionally well-prepared undergraduates with permission from instructor. (3 lec, 1 discussion/lab) *Instructor (Rich) approves this listing.*

SMS 544 Oceanography and Natural History of the Gulf of Maine (3 credits): Class examines the basic workings of the Gulf of Maine: its geological history, basic marine biology and oceanography, nutrient dynamics, and various biological processes, from phytoplankton

blooms to commercial fisheries and associated management issues. Class will also explore the impacts of human interactions in the Gulf, especially those related to fisheries, pollution, coastal processes and other recent global warming-related changes. *Instructor (Townsend) approves this listing.*

LEARNING GOAL 1 LINK: The second concentration course (SMS 563) provides students with knowledge of the human dimensions of systems within which blue economy activities, e.g., aquaculture, fisheries, ocean energy occur, as well as the diversity of governance systems relevant to the blue economy.

SMS 563 Fisheries Policy and Management (3 credits): This graduate course aims to provide a foundation in the theory and practice of contemporary fisheries policy and management. Students that participate in this class will learn about the key policy frameworks that guide fisheries management and the contemporary strategies being deployed to balance conservation and resource use. This course starts with a primer on the institutional architecture of fisheries management and a description of federal, state and local management and how these complex systems are interrelated. The second part of this course will focus on contemporary policy tools in fisheries management and the seminal and emerging scholarship that has shaped their use and refinement. In this course, students will also engage with policymakers, managers, and fishers first-hand through fieldtrips and guest lectures that are designed to provide a greater understanding of the complexity and nuance of the decision-making process. Students that take this class will deepen their understanding of fisheries management and policy and hone their written and analytical skills in the process. *Instructor (Stoll) approves this listing.*

LEARNING GOALS 1 & 2 LINKS: The third concentration course (SMS 598a or SMS 598b or SMS 683) provides students with opportunities to integrate knowledge of the environmental and human dimensions of blue economy systems, as well as the diversity of species and ecosystems and governance, food and energy production systems employed globally by blue economy sectors. This third required course also will enable students to demonstrate their mastery of this interdisciplinary knowledge through project-based collaborative learning opportunities relevant to community and economic development from the firm to regional scales.

ECO/SMS 564 - Marine Resource Management

This course uses the economic lens to explore issues related to the use and management of the oceans. Traditional biological/economic approaches to resource management are addressed. Frontier approaches, challenging traditional methods, are also discussed. This course draws on game theory and natural resource economics to explore topics, such as drawing lines in the sea, the management of wild capture fish stocks, recreation, tourism, aquaculture and pollution from land-water interactions.

Prerequisites & Notes None.

Credits: 3

SMS 598a Aquaculture (3 credits): In this semester long course at the Darling Marine Center (taught on Wednesdays in Fall 2021), students will explore the range of ways that food is grown in the sea, from macroalgae to shellfish to finfish culture, as well as the scale and design of the systems that support growing these species for food. As one of the first areas in the US to culture

kelp and the site of some of the largest proposed Recirculating Aquaculture Systems (RASs) in the world, Maine is an ideal natural laboratory to explore this important intersection among ecology, economics, food security, governance and technology. Practitioners of each of these different aquaculture technology sectors will share the opportunities and challenges they see in their industry as part of this course. Through the experimental aquaculture farm at the Darling Marine Center, where we raise oysters, scallops, and kelp, provided public health conditions allow it, students will have the opportunity to participate in field trips that involve measuring growth rates, learning about husbandry practices, and determining optimal oceanographic conditions for bivalve and kelp aquaculture. Ultimately, our course will take lessons learned in Maine and ask how aquaculture can be sustainably scaled up to address global challenges related to food production, coastal pollution, and climate change. *Instructor (Brady) approves this listing.*

SMS 598b Applied Methods in Shellfish Farming (3 credits). This hybrid course is a blend of virtual modules (in weeks 1 and 3) and a field and laboratory-intensive five-day course (week 2) at the Darling Marine Center. Together, these modules enable students to learn the practical methods used to cultivate commercially important bivalve mollusks including oysters, mussels, clams and scallops. Students become familiar with bivalve hatchery methods, algae production and measuring water quality and are exposed to upweller and nursery operations and visit commercial oyster, mussel and clam farms. Students also learn how to identify suitable aquaculture sites through extensive use of instrumentation, GIS and field survey methods. Regulations such as leasing, permitting, public health and biosecurity also are addressed. *Instructor (Davis) approves this listing.*

SMS 683 Internship in Marine Policy (3 credits). Professional experience with a marine resource management organization. Students must submit a plan approved by the SMS Associate Director and the sponsoring organization. Reports and readings will be required. *SMS Associate Director (Ellis) approves this listing.*

This proposal has the support of the Graduate School of Business faculty, Dean of the Graduate School of Business, and Dean of the College of Management and Human Services.

Submitted By:

(Signatures of Person(s) Responsible for Program Plan) (Date)

Approved By:



(11/09/2021)

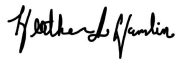
(Dean of the Graduate School of Business, Maine Business School) (Date)

William G. Ellis, Jr.

Dec 3, 2021

William G. Ellis, Jr. (Dec 3, 2021 08:37 EST)

(Associate Director of the School of Marine Sciences, Wge Ellis) (Date)



7/6/2022

(Director of the School of Marine Sciences, Heather Hamlin) (Date)

Deborah G. Bouchard 06 Jul 22

(Director of the Aquaculture Research Institute, Deborah Bouchard) (Date)

DocuSigned by:



7/13/2022

(Dean of the College of Natural Sciences, Forestry, and Agriculture, Diane Rowland) (Date)

(Vice President for Research & Dean of the Graduate School, Kody Varahramyan) (Date)

(Executive Vice President for Academic Affairs and Provost, John Volin) (Date)

UMS Faculty and Staff Survey

The University of Maine System is interested in supporting the higher education goals of all faculty and staff who have not yet earned a terminal degree through the development of one or more doctoral programs targeted towards UMS employees who already have an advanced degree. If you would be interested in this opportunity, please respond to this brief survey by **November 1, 2022**.

* Required

1. Email *

2. Name *

3. University of Maine System Institution *

Check all that apply.

- University of Maine at Augusta
- University of Maine at Farmington
- University of Maine at Fort Kent
- University of Maine at Machias
- University of Maine
- University of Maine Law School
- University of Maine at Presque Isle
- University of Southern Maine
- University of Maine System

4. Academic Department or Administrative Unit *

5. Faculty or Staff Appointment *

Mark only one oval.

- Tenured Faculty
- Tenure Track Faculty
- Non-Tenure Track Faculty
- Research Staff
- Administrative Staff

6. Highest Degree Earned *

Mark only one oval.

- Master's degree
- Post-Master's advanced degree (not a doctorate)
- Some doctoral work
- Other: _____

7. Discipline or Field *

8. Year Earned

9. If an online or low-residency doctoral degree option were available within the University of Maine System, would you be interested in applying to the program? *

Mark only one oval.

- Yes
- No
- Maybe

10. What sort of doctoral program would interest you? *

Check all that apply.

Check all that apply.

- Project-based doctorate in education (focused on pedagogy and/or higher education)
- Project-based doctorate in higher education leadership and/or management
- Research doctorate focused on best pedagogical practices in your academic discipline
- Project-based doctorate focused on best pedagogical practices in your academic discipline
- Research doctorate related to the discipline of your master's degree
- Other: _____

11. Would you be willing to participate in a focus group regarding doctoral program options for UMS faculty/staff? *

Mark only one oval.

- Yes
- No

12. Please share any other questions, comments, or concerns you have regarding this initiative.

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