THE UNIVERSITY OF MAINE Graduate School

Graduate Board
Thursday, November 21, 2024
57 Stodder Hall

12:30-2:00 pm

AGENDA

1. Approval of October 24, 2024 minutes

2. November 12, 2024 Graduate Curriculum Committee report

3. Update from Vice President and Dean Varahramyan

4. Announcements/updates
   - Graduate Student Workers' Union update
   - Graduate School financial awards process
   - SRE update

5. Update from OIP –Orlina Boteva

6. New academic program proposals
   - Graduate Certificate in Offshore Wind Energy
   - MBA concentration in Organizational Leadership

7. Continued discussion of the use of AI in graduate programs

8. Items arising

THE UNIVERSITY OF MAINE Graduate School

Graduate Board
Thursday, October 24, 2024
57 Stodder Hall

12:30-2:00 pm
AGENDA

Meeting called to order: 12:40 pm

Attendance:
In Person: C. Beitl, G. Cox, S. Delcourt, D. Dryer, N. Emanetoglu, A. Gardner, A. Goupee, D. Granke, V. Herbert, L. Riordan, G. Miles, S. Morano, W.D. Nichols, E. Pandiscio, F. Rondeau, D. Sandweiss, J. Buttcane, T. Yoo

Zoom: P. Rahimzadeh-Bajgiran, R. MacAulay, S. Nittel, G. Schwieterman, G. Goins, J. Riccardi, J. Dimmel, K. Blackmer, K. Evans, L. Rickard, M. Camire, M. Brichacek, M. Gardner, P. Libby, R. Wheeler, R. Roberts, S. Marzilli, T. Bowden, J. Romero Gomez, L. Curioli, E. Allan

1. **Approval of September 19, 2024 minutes**
   - Dan Sandweiss asked for clarification in the minutes from September regarding the mentoring compact – was it adopted for both doctoral and master's students? Scott said that when the Grad Board voted to accept the compact, it was with the understanding that it would initially apply to all doctoral students. However, programs are encouraged to use the compact for master's students in thesis programs.
     1. Willian D – motion to approve
     2. D Granke - 2nd
     3. Unanimous approval with one abstention – Allison Gardner

2. **October 1, 2024 Graduate Curriculum Committee report**

New Courses:

BMS 651	Grant Writing in Biomedical Science and Engineering
NUR 568	Innovations in Clinical, Simulation and Laboratory
NUR 569	Innovations in Clinical, Simulation and Laboratory Instruction Practicum
NUR 570	Nursing Program Design and Evaluation

Modifications:

ERS 542	Atmosphere, Ocean, Ice, and Climatic Change

MEE 550 Mechanics of Laminated Composite Structures
MEE 554 Theory of Elasticity
NUR 523 Family Nurse Practitioner Care of Adults II

1. Dan Sandweiss – motion to approve
2. Jacquelyn Gill – 2nd
    i. Unanimous approval

3. Announcements/updates

- Graduate enrollment update
    i. Final doctoral at census ended up at 605 – UMaine topped 600 doctoral students for the very first time!
    ii. Overall graduate enrollment was down about 60 students. In-state enrollment was down, but out-of-state enrollment was up from last year.
    iii. Scott reminded GB members that the University is billing for non-resident tuition differently this year for graduate assistants. All GAs will be assessed a GA tuition rate which is equivalent to the in-state tuition rate. As a result, the University will not face the multi-million dollar deficit in the tuition budget that it faced last year.

    Jacquelyn Gill mentioned: EPSCOR now has some tuition dollars to use for scholarships for students who received an honorable mention. She will forward the information to Grad Board. It is a 3-year pilot program – 3 years of support per fellow.

- Update on Graduate School staffing
    i. Debbi Clements will be back officially on Nov 4
    ii. New Director of Graduate Student Recruitment – Karyn Soltis-Habeck
        1. Karyn is currently an Associate Director for Recruitment in undergraduate admissions and has experience in transfer student and veteran's admission, and adult student populations so she is a good fit for the Graduate School. She also has a background in student success.

    iii. Graduate Student Workers' Union update – Scott reported that he left bargaining today to attend GB. Negotiations are still going slowly – but the UM System has a new lead negotiator and is increasing the frequency of meetings which are now all face-to-face. Bargaining talks still have not included wages, health insurance, and housing.

4. ITP for PhD concentration in Education, Schools, and Community – Rebecca Buchanan

- Scott reminded the GB members that while the Graduate School does not review and approve intents-to-plan, the Graduate Board will review the full concentration proposal when it is ready
    i. This is a new Concentration within the existing PhD in Education.
    ii. Existing concentrations are in Prevention & Intervention, Literacy Education, Higher Education, Special Education, and STEM Education.
    iii. D. Nichols mentioned that CoEHD faculty are working to streamline curricular offerings within the college with a common core of courses for all doctoral programs and additional courses for each concentration (subplan).

1. Jacquelyn Gill asked a question regarding the review required for a concentration application and was told it had to go before Faculty Senate.
2. Scott explained that if it is an existing degree program and the program develops a new concentration, it doesn't need to go before Faculty Senate – just the Chief Academic Officers group.
3. Regarding concentrations - Meghan Gardner suggested that MBA does this frequently. The approval process for a concentration is much more straightforward than a proposal for a new degree program which requires BOT approval.
4. Richard Roberts asked about the correct approval process if there is a modality change in an existing concentration.
5. D. Nichols mentioned that the Faculty Senate is working on revised guidelines for academic program approval. Dee proposed putting Meghan and Richard in touch with MJ Sedlock who is working on this initiative. Possibly an opportunity for a joint Senate-Grad Board committee?
6. D. Nichols mentioned that they had a similar issue with the literacy program – that cannot be publicized as an online program without a substantive change proposal.
7. Richard Roberts suggested that DLL would love to help with these concentrations. If a program is not officially coded as "online" it doesn't qualify for the e-rate.

5. The evolution of Maine's research university – George Jacobson

- Professor Jacobson retired 16 years ago and has served as Professor Emeritus for those years.
- This talk is intended to demonstrate how faculty members could become advocates for the university.
- Morrill Act – 1862 – established Land Grant Universities.
- Up until the mid-1990s, no one had ever tried to make the case that a research university should be a priority within the state.
- George noted that "the year I was hired in 1979, the letter of appointment from the President included a statement that indicated that I was to seek support for my research."
- NSF grants – Institute for Quaternary Studies
    i. The first director of the Institute (Hal Borns) received the University's first NSF grant in 1965 before there was an office of research administration. He had to put the funds in a personal bank account.
- 1996 Faculty Five Initiative
    i. 6 budget cuts in 5 years (one year we had to cut the budget again after allocations had been made)
        1. Board of Trustees wrote a letter to all of the faculty members with a plan to cut an additional 2% from the UM System allocation to the University. From 1990-1996, UMaine lost nearly 500 employees due to lack of funding.
        2. We put together a case to help the governor and legislature understand the need for financial support for the University.
        3. At that time, the President was only allowed access to the state

legislature once a year – and only with the Chancellor

4. The members of the Faculty Five worked with Scott Delcourt in the VPR's office to gather data from other states, from EPSCoR, and from the Maine Development Foundation to make a case for more funding for university research with the state legislature.
5. Editor of the BDN agreed to run an editorial on the importance of state funding for the University. After the article was published, the Faculty Five circulated the State presenting at local meetings such as Rotary clubs to talk about the importance of funding education.
6. EPSCoR funding – we fell to nearly the bottom of all states in Federal university funding. (Puerto Rico was the only one lower than Maine).
7. Maine Senate President Mark Lawrence was the first to support funding for the University ($20M annual initial request). This was the Maine Economic Improvement Fund (MEIF).
8. Robert Edwards, former President of Carleton and Bowdoin Colleges was in support of the efforts to get funding for the University.

ii. Some outcomes –

1. increase in base budgets for all public higher education in Maine (appx +3%)
2. In 2018 Joan Ferrini-Mundy was appointed as President of UMaine. She was named Maine Business Leader of the Year in 2024. In 2024, she was also appointed to US Science Research Board.
3. While some faculty have had questions about the University's R1 ranking, it means we are recognized alongside the major research universities in the U.S.
4. Opportunity to pursue more funding through the National Institute of Health and other sources
    a. Priority – New Biosciences / Health building
    b. Widespread advocacy for one simple message about the importance of a vibrant research university
    c. Meet with / interact with your own legislators
    d. Some major differences between UM and State of Maine from 1997 to today.
        i. Chancellor strongly advocates for UMaine
        ii. Over 600 PhD students

6. **Update from the Office of International Programs – Orlina Boteva**

    Orlina will come back for another meeting to discuss IEI and English Proficiency expectations.

7. **Items arising -** none

Meeting adjourned 1:57PM

CURRICULUM COMMITTEE REPORT

The Curriculum Committee met on November 12, 2024 and is recommending the following courses to the Graduate Board for approval at its November 21st meeting.

New Courses:

BEN 605 Professional and Responsible Conduct of Research in Biomedical Science and Engineering

HTY 580 Indigenous History of North America

PSY 519 Suicide Prevention

SED 557 Partnerships with Families: Culturally Responsive Teaching & Interactions

Modifications:

NUR 503 Advanced Health Appraisal and Physical Assessment: Nurse Practitioner

SED 566 Executive Functioning in Learning

THE UNIVERSITY OF MAINE

Intensive English Institute

Graduate Board
October 26, 2022

How IEI supports UMaine's mission

Provides a pathway to degree programs conditional admission

Supports research scholars' language development

Serves the Maine immigrant community

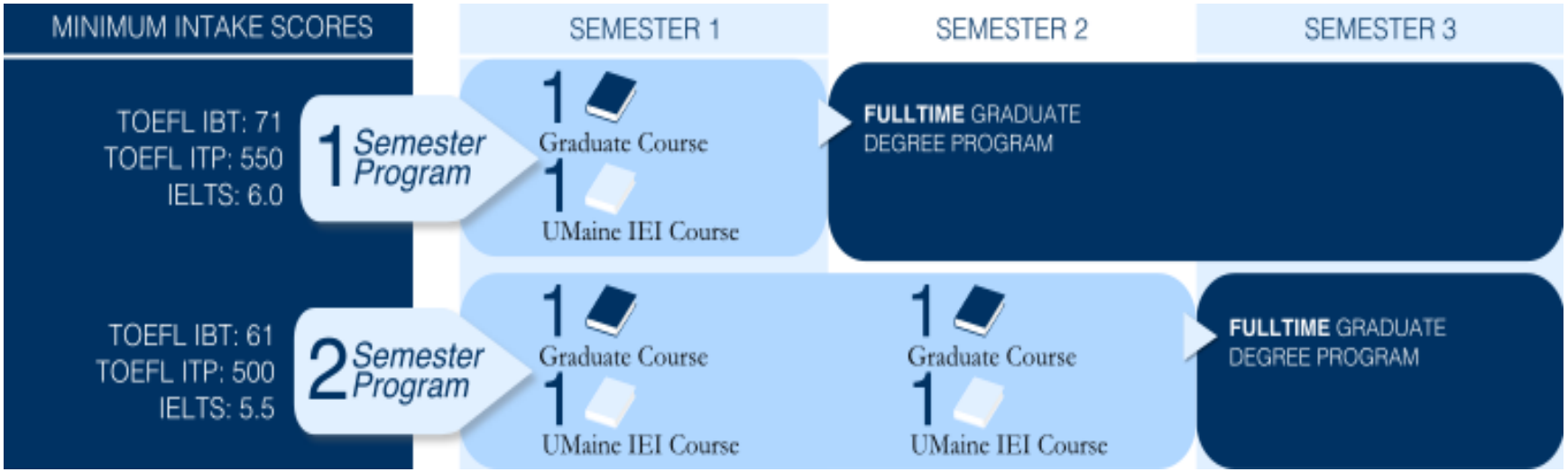
What is Conditional Admission?

The student meets the academic requirements for admission.

Their English proficiency is lower than 80 TOEFL or 6.5 IELTS.

Impact on GRE scores and essay

Sample Progression Schedule



Maine Bridge Program

- Common European Framework (CEFR)
- A student's level is determined by placement testing.
- Four different levels of courses:
  - A2 - Level 1
  - B1 - Level 2
  - B2 - Level 3
  - C1 - Level 4
- Student movement up through the different levels is determined by ongoing assessment of student learning outcomes and progress testing.

Testing for Graduate admission

- Student can request conditional admission
- Graduate School can identify suitable candidates for IEI testing
- Grad school staff requests IEI testing
- Test score and placement recommendation
- Graduate committee can offer IEI as a condition of admission
- Admission letter issued

IEI students

10 F-1 students
3 J-1 exchange students
5 F-2 students
39+ refugees
1 Asylum seeker

Countries of origin: 30+

Research scholars

Contact

Intensive English Institute (IEI)

Questions: Orlina.Boteva@maine.edu
Curriculum: Erinkate.Sousa@maine.edu
Admission: um.iei@maine.edu (Adriana)

Ph: 581-3821

Department of
Mechanical Engineering

THE UNIVERSITY OF MAINE

5711 Boardman Hall, Room 219
Orono, Maine 04469-5711
Tel: 207.581.2120
Fax: 207.581.2379
umaine.edu/MechEng/

May 6, 2024

Below are the endorsements to accept the proposed Offshore Wind Energy Graduate Certificate Program.

Leader, Initiating Department/Unit(s)

Dr. Masoud Rais-Rohani 5-6-2024

College(s) Curriculum Committee Chair(s)

Dean(s)

Associate Vice President for Graduate Studies and Senior Associate Dean

Offshore Wind Energy Graduate Certificate Program

Certificate Coordinator

Prof. Dr. Amrit Verma

Rationale

Offshore wind in the US is expected to reach 30 GW by 2030, which will increase to 110 GW by 2050 [1,2]. As a result, approximately 2500 offshore wind turbines will be installed by 2030, creating 77,000 new jobs across various offshore wind disciplines [3]. The Gulf of Maine (GOM) has one of the best offshore wind resources in the US, with 156 GW of offshore wind capacity within 50 miles of the coast [4]. In fact, offshore wind technology has been recommended by the State of Maine as one of its major low-carbon solutions and will contribute significantly to Maine's carbon neutrality target by 2045 [5].

The University of Maine is leading the State's efforts in offshore wind turbine technology development with several federally-funded research programs together with the patented VolturnUS technology. In 2013, UMaine designed, constructed and deployed the first grid-connected floating offshore wind turbine in the US., and is in the process of deploying a 11 MW floating turbine 14 miles off the coast of Maine [6]. With rapid advancement in the offshore wind industry, thousands of new jobs will also be created in Maine which will require offshore wind-specific expertise in engineering, manufacturing, construction, maintenance, environmental impact, and navigation.

However, according to reports [7-10], local companies have difficulty finding US professionals skilled in offshore wind technology and thus they resort to hiring foreign talents. Therefore, Maine must advance its educational infrastructure and programs to prepare and train students and professionals in offshore wind, thus reducing this workforce gap.

With the high prominence of UMaine-led floating offshore wind technology development at the state and national levels, a significant amount of interest has been fostered in offshore wind energy-specific instruction at UMaine. This is evidenced by the dozens of engineering undergraduate and graduate research assistants employed at UMaine on offshore wind projects, as well as by the extremely high attendance in wind energy-related engineering courses whenever they are offered. Many of these students express a strong desire to better prepare themselves for a career in wind energy, specifically offshore wind. However, there are currently no credentials offered at UMaine that will provide students and professionals with a focused, graduate credential that will prepare them for a career in the offshore wind industry. To this end, an Offshore Wind Energy Graduate Certificate will be developed that will provide essential skills for pursuing a career in the offshore wind industry.

The Offshore Wind Energy Graduate Certificate will be established for individuals possessing a baccalaureate degree which contains the coursework required to enroll in the required coursework to complete the certificate. The certificate will appeal to recent graduates aiming to pursue a career in offshore wind, as well as professionals looking to redirect their careers and enter the offshore wind energy industry.

By completing the certificate, students will gain skills essential for serving particular roles in the growing offshore wind industry here in Maine, including understanding socio-economic and political factors, core wind energy industry concepts, hydrodynamic and structural design of floating platforms, offshore wind farm planning and operation, and/or offshore wind system-specific numerical engineering analysis techniques.

Requirements

The Certificate requires completion of 12 credits (4 courses) through a combination of 400- and graduate-level courses as described in the course sequence section below. A maximum of one course (or 3 credits) at 400 or 500 level may be transferred from outside of UMaine to the program for credit. Students must complete 12 credits with a minimum grade of C in no more than one course (all other earned grades must be a B or above). At least three courses (9 credits) must be at 500 or 600 level. At least 6 credits must be taken from the core course category. No more than 6 credits may be taken from the supporting course category. The Certificate program shall be completed within 3 years from the date of acceptance into the program.

Eligibility Criteria

An earned baccalaureate degree or its equivalent from an accredited college or university is required for admission. The earned baccalaureate degree must possess sufficient prerequisite coursework that would enable the student to enroll in the coursework required for the certificate. A minimum grade point average of 3.0 applies to all candidates and international applicants must satisfy University of Maine English proficiency requirements.

The courses completed for this certificate program may be counted towards a graduate degree per the guidelines of the respective graduate degree program.

Educational Objectives

At the end of the Offshore Wind Energy Certificate program, students will demonstrate:

1. An ability to identify, formulate, and solve complex offshore wind engineering problems by applying principles of engineering, science, and mathematics.
2. An ability to apply engineering design to produce offshore wind technology solutions that meet specified needs with consideration of stakeholder issues
3. An ability to communicate effectively with a range of offshore wind stakeholders.

Proposed Course Sequence

The proposed certificate program requires completion of 12 credits of coursework (4 courses) divided into two categories of core and supporting courses as described below.

a. Core Courses (6 credits minimum)
   Note: At least one core course from those marked below with an * must be taken

MEE 480/580, CIE 480 Wind Energy Engineering*
This course presents the theory and design of modern wind turbines. Theoretical aspects of the course cover the fundamentals of assessing the aerodynamic loads and efficiency of a wind turbine. Design procedures for wind turbines are outlined with an emphasis on maximizing performance, assuring structural integrity and minimizing the cost of energy. Current trends in offshore wind are also covered as well as the social and environmental issues of a burgeoning wind energy industry. Lec. 3 cr.

MEE 489/565 Offshore Floating System Design*
The course introduces the basics of naval architecture and offshore engineering design concepts to senior engineering students. A broad introduction is provided on the topics of floating platform stability, structural strength, global performance, mooring systems and installation. Use of industry guest lecturers will complement regular lectures for the course. Emphasis is placed on applying recommended practices by regulatory bodies into hands-on design projects. Lec. 3 cr.

MEE 491/591 Offshore Wind Farm Engineering*
This course introduces the basics of offshore wind farm engineering and design. A broad introduction is provided on the topics of offshore climate, turbine selection criteria, substructure design, installation processes, operation, maintenance, electrical infrastructure, environmental impacts, and decommissioning aspects of offshore wind farms. The basic theory together with state-of-the-art industrial practices and future technologies driving the offshore wind farm development will be addressed. Lec. 3 cr.

CIE 551 Water Wave Mechanics
This course introduces the mechanics of coastal and ocean waves, small-amplitude water wave boundary value problem formulation and solution, wave particle kinematics, wave superposition, geostrophic and frictional affects experiences by long waves in engineered and natural systems and wave propagation over real seabeds. Lec. 3 cr.

ECE 498/498 Smart Grid and Enabling Technologies
Course is currently offered as a Selected Topics in Electrical and Computer Engineering course. Lec. 3 cr. Covers smart grids and enabling technologies. It is anticipated that this course will be developed into a regularly-scheduled ECE course in the future.

b. Supporting courses (6 credits maximum)

MEE 459/559 Engineering Optimization
This course covers analytical, graphical, and numerical approaches for solving unconstrained or constrained optimization problems involving linear or nonlinear functions. Application of optimality criteria and mathematical programming techniques to problems involving multiple design variables. Lec. 3 cr.

MEE 477/577 Introduction to Structural Dynamics
This course provides an introduction to the fundamental and applied aspects of structural dynamics. Axial, flexural and torsional vibration characteristic for continuous structural members and machine elements using analytical and numerical methods. Finite element analysis of the steady state and transient response of structural elements and systems. Application of theoretical and numerical techniques to the dynamic analysis of mechanical and aerospace structural members. Lec. 3 cr.

MEE 490/590 Modern Control Theory & Applications
This course introduces state-space methods for analysis and design of linear control systems. The assumed prerequisites are undergraduate courses in linear algebra and dynamic systems and controls. The analysis part of this course is concerned with stability, controllability, observability, realization, and minimality of the state-space model, while the control design part delves into the methods of pole placement for state feedback and observer design, and optimal methods such as linear quadratic regulator (LQR) and Kalman filter. Students will also learn how to apply the theory to engineering problems using MATLAB for both continuous-time and discrete-time systems. Lec. 3 cr.

MEE 564 Fluid Structure Interaction
This course introduces the basics of fluid-structure interaction (FSI) by a series of progressively complex problems. In the process, basics of fluid mechanics, wave hydrodynamics, floating system dynamics, and vibrations are also covered. Topics covered include linear wave theory, linear and non-linear oscillators, potential flow methods, wave force prediction methods, vortex-induced vibration and seakeeping. Lec. 3 cr.

CIE 557 Measurement Techniques in Water Resources
This course is an introduction into measuring dynamic variables in coastal, riverine and lake environments. Topics include accuracy, precision, aliasing: instrumentation set up, communication and troubleshooting; participation in a field campaign; preliminary data processing procedures, presentation, and organization. Lec. 3 cr.

CIE 558 Coastal Engineering
An introductory course on the principles of coastal engineering problems in lakes, river mouths, inlets, estuaries and other coastal area. Topics include linear water wave theory; wave generation and forecasting, wave shoaling, refraction and diffraction; wave loading on structures; design wave calculation; stability and design of coastal structure; sediment transport; coastal hazards and environments. Lec. 3 cr.

CIE 640 Advanced Structural Analysis
This course considers the linear and nonlinear finite-element analysis of framed structures using the principles of minimum potential energy and virtual work as bases. Topics include thermal effects, shear deformations, constraints, beams on elastic foundations, buckling, geometrically nonlinear analysis, materially nonlinear analysis, and an introduction to frequency-based and time-history dynamic analysis. Significant computer programming is required. Lec. 3 cr.

ECE 427/EET 422 Electric Power Systems
Power system models, power flow solutions, fault analysis, protective relaying. Lec. 4 cr.

ECE 455 Electric Drives
This course is an introduction to electric drive and their control. The course covers mechanical dynamics associated with electric drive systems, analysis and control of DC motors, induction motors, and permanent magnet AC motors, four quadrant motor operations, feedback control design for torque, speed and position. Lec. 3 cr.

EET 460/560 Renewable Energy and Electricity Production
This course covers an overview of renewable energy resources, energy conversion and storage for stationary and transportation applications. Topics include: Basics of electrical energy and power generation, load specification, history of electric utilities, distributed generation, the economics of energy, biomass duels, wind and solar power and fossil fuel limits, and battery storage. Lec. 3 cr.

Evidence of Course Sequence Meeting Educational Objectives

The three major areas in this certificate program include the analysis of offshore wind energy systems, the design of these systems, and finally, the comprehension of stakeholder challenges for offshore wind energy. The educational objectives are met as indicated by the description of the eight courses listed in the sequence.

Regarding the first of these educational objectives, each of the courses listed cover relevant analysis techniques associated with offshore wind energy systems. For example, CIE 550 addresses the analysis of wave environments which are a major driver in offshore wind system loads, MEE 489/565 covers floating platform dynamics, MEE 491/591 presents offshore wind farm wake analysis and its influence on power production, and CIE 640 provides instruction on structural analysis techniques relevant to offshore wind energy devices. As for the second educational objective covering the design of offshore wind energy systems, MEE 480/580 & CIE 480 presents the aerodynamic design of wind turbines and MEE 491/591 covers the design aspects of an offshore wind farm including siting and turbine spacing. As for the last educational objective, instruction on offshore wind farm stakeholder challenges associated with environmental, social, economic, regulatory, and other elements, is provided in core courses such as MEE 480/580 & CIE 580 and MEE 491/591.

Faculty

The following faculty (listed in alphabetical order) have the expertise and background to teach one or more of the courses listed above.

Dr. Williams Davids (CIE), Dr. David Dvorak (MET), Dr. Andrew Goupee (MEE), Dr. Babak Hejrati (MEE), Dr. Kimberly Huguenard (CIE), Dr. Donald Hummels (ECE), Dr. Richard Kimball (MEE), Dr. Hepeng Li (ECE), Dr. Masoud Rais-Rohani (MEE), Dr. Lauren Ross (CIE), Dr. Senthil Vel (MEE), Dr. Amrit Verma (MEE), Dr. Paul Villeneuve (EET)

Mode of Delivery

While the courses listed in the sequence are taught to on-campus students at this time, there is interest in gradually transitioning one or more courses for a combined on-campus and off-campus delivery via appropriate distance education technology. The decision to offer a course via distance technology will be made by the course instructor and the respective unit.

Timeframe for Certificate Completion

The courses in the sequence will be offered on a regular basis, some on an annual basis with most on a biannual basis. Considering the number of credits required and the frequency of offering each course in the sequence, it is anticipated that the certificate can be completed in one to two years.

Fiscal Criteria

The courses included in the sequence will be taught on a regular basis as part of the regular teaching assignment for the associated instructors in their respective units.

References

1. https://environmentamerica.org/feature/ame/offshore-wind-america
2. Parkison, S.B. and Kempton, W., 2022. Marshaling ports required to meet US policy targets for offshore wind power. Energy Policy, 163, p.112817.
3. https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/
4. https://www.nrcm.org/programs/climate/clean-energy/offshore-wind-maine/
5. https://www.maine.gov/energy/initiatives/offshorewind
6. https://newenglandaquaventus.com/
7. Cross, D., 2020. A Comparative Study on the Offshore Wind Education Systems in Denmark and New England (Doctoral dissertation, Worcester Polytechnic Institute).
8. https://www.energy.gov/eere/wind/articles/mind-wind-workforce-gap
9. https://www.offshorewind.biz/2021/08/26/gwo-us-needs-to-train-25000-offshore-wind-workers-to-build-9-1-gw-by-2025%E2%80%AF%E2%80%AF/
10. Keyser, D.J. and Tegen, S., 2019. The wind energy workforce in the United States: Training, hiring, and future needs (No. NREL/TP-6A20-73908). National Renewable Energy Lab.(NREL), Golden, CO (United States).

THE UNIVERSITY OF MAINE

Maine Business School - Graduate School of Business

MEMO

TO: Kody Varahramyan, Vice President for Research and Dean of the Graduate School
From: Jason Harkins, Dean, Graduate School of Business
Subject: MaineMBA Concentration Proposal for Organizational Leadership
Date:

The Graduate School of Business of the Maine Business School proposed to establish an **Organizational Leadership** concentration within the University of Maine Master of Business Administration (MaineMBA) program.

Rationale

Representing an interdisciplinary partnership between the University of Maine and the University of Southern Maine, the MaineMBA concentration in Organizational Leadership will deliver graduate-level professional education opportunities paring the curriculum of the MaineMBA with the skills and knowledge necessary for individuals in or seeking leadership positions in their careers.

This proposal has the support of the Graduate School of Business faculty, the Deans of

1. The Maine Business School and the Graduate School of Business
2. Dean of the College of Arts, Humanities, and Social Sciences, University of Southern Maine.

(Signature)

Jason Harkins
Dean, Graduate School of Business

THE UNIVERSITY OF MAINE

Maine Business School - Graduate School of Business

University of Maine Graduate School of Business
Proposal for a MaineMBA concentration in Leadership

Proposal Contents:

1. Academic Program Alignment

Mission and Goals

The MaineMBA Concentration in Organizational Leadership coincides with the Strategic Vision and Values of UMaine, the Unified Accreditation for the University of Maine System, the UMS Transforms initiative, and the emphasis on developing interdisciplinary programs that cross university boundaries. This concentration is being offered in partnership with the Department of Leadership & Organizational Studies at the University of Southern Maine.

We believe this program supports the mission and goals of the University of Maine System, the Graduate School of Business, and the Department of Leadership & Organizational Studies by preparing students for leadership opportunities in their careers through the development of applicable knowledge and skills required. As leadership is an industry-agnostic topic, the pairing of an MBA program (general management) with an organizational leadership specialization is an applicable and logical combination. We believe this program will help augment the specialized skills of those MBA graduates particularly interested in leadership roles.

Program Demand

In the New England region, jobs requiring a management science masters degree with a focus in organizational leadership typically include positions for General Operations Managers, Management Analysts, Financial Managers, Sales Managers, and Financial and Investment Analysts. The trends in Maine and nationwide are comparable. The number of job postings in New England is 16% above the national average.

Lightcast indicates a rise in employment projections over a four-year period (2022-2026) with an average regional New England growth of 6.4% and the growth for Maine at 7.2%. The median salary within this general sector is $120,200 for New England and $91,300 in Maine. (See Lightcast report: Appendix A.)

Program Resource Needs

The organizational leadership course sequence is currently being delivered by the Department of Leadership & Organizational Studies at the University of Southern Maine on a regular rotation, and the MaineMBA Core is offered by the Graduate School of Business at the University of Maine. Thus, no new courses are required.

Delivery Modalities

- The MaineMBA core courses are primarily developed and delivered in the asynchronous, online 8-week format, with occasional options delivered in online synchronous or on-campus modalities, as needed.
  The Department of Leadership & Organizational Studies electives are primarily developed and delivered in the asynchronous, online 15-week format, with occasional options delivered in the asynchronous, online 8-week format; with occasional options in online 15-week synchronous or on-campus modalities as needed.
- Internship lengths and/or required hours will be determined on a case-by-case basis and may be longer than 7-weeks and in person or virtual.

2. Program Description

The organizational leadership concentration prepares students for leadership roles in for-profit, agency, government, nonprofit, B-corps, and community organizations. The concentration develops robust, foundational knowledge and skills that will permit graduates to excel as leaders in their chosen field. Coursework focuses on leading diverse organizations, and organizational development and change, which are critical for organizational growth and sustainability in the increasingly multifaceted, interconnected,

and complex global environment. The concentration serves working professionals and pre-career students from varied educational backgrounds who aspire to leadership positions.

3. Program Learning Outcomes

Upon completion of the concentration, learners will acquire knowledge of:

- Traditional and Emerging Leadership Theories
- Leading in a diverse global environment
- Leading organizational development and change
- Developing and communicating a credible, compelling organizational vision, and strategies for its implementation
- Creating positive inspiring organizational culture
- Influencing and building relationships with diverse constituencies
- Empowering and motivating employees
- Interpersonal and inter-cultural effectiveness

4. Admission Requirements:

Admission to the MaineMBA concentration in Organizational Leadership will be the same as general MBA admission, with admission requirements including:

a. Undergraduate GPA above 3.0
b. GMAT or a GMAT Waiver
c. Satisfactory TOEFL/IELTS scores if applicable
d. Completed application with supplemental documentation and fees
e. 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

Nine Credits (3 courses) of Organizational Leadership Concentration Courses:

Take one of the following two streams of elective courses:

Stream #1: "Leading Diverse Organizations"

- (Required) LOS 500: Foundations of Leadership Studies I: Theory and Practice
- (Choose 1)
    - LOS 550: Leading Across Cultures, or
    - LOS 639: Women's Ways of Leading: Building Partnerships, Creating Change
- (Required) LOS 551: The Craft of Global Leadership

Stream #2: "Leadership in a Global Environment"

- LOS 500: Foundations of Leadership Studies I: Theory and Practice
- LOS 502: Leading Organization Development
- LOS 551: The Craft of Global Leadership

6. Course Descriptions

LOS 500 Foundations of Leadership Studies I: Theory and Practice

Students in this course are provided with an overview of leadership theory, practice, and intellectual history through using disciplinary and interdisciplinary approaches from philosophy, social science, the humanities, and STEM fields. Additionally, students will explore the wealth of interpretive frameworks for leadership and apply critical perspectives to develop their understanding of leadership. In doing so, students will gain self-awareness of their strengths, growth opportunities, and identity in relation to leadership.

LOS 502 Leading Organization Development

Students in this course will explore theories and research of leading effective holistic systems change with a focus on organizational development frameworks, strategies, and processes. An emphasis will be placed on processes for leading organizational change and related emerging leadership theories and research. Case studies are used to examine the intended and unintended consequences of organizational development efforts.

LOS 550 Leading Across Cultures

Students in this course are introduced to the impact of culture on leadership and on interactions between individuals in the global context (at the international, national, organizational, and social levels). Additionally, students will examine relevant theories and apply them to real-life scenarios to develop a cultural mindset that is essential to effective functioning in today's global and interconnected world.

LOS 639 Women's Ways of Leading: Building Partnerships, Creating Change

This course offers historical and multi-disciplinary perspectives on women leaders, systems of power and privilege, cultural shifts and the psychology of bias. The settings of our investigations will range from the private corporate sector to government and nonprofits, both within our country and abroad.

LOS 551 The Craft of Global Leadership

This course offers an overview of the political, social, business, and technological challenges of the global environment. Students gain an understanding of different perspectives of critical global issues (peace, poverty, energy, water, environment) and their effect on local communities. They will examine the ways of sovereign states and non-traditional "actors" assert their specific geopolitical interests, the critical attributes and functions of global leaders, along with the role of international organizations (International Financial Institutions, etc.) in facilitating multi-state collaboration on development assistance and social progress. Through readings, discussion forums, case study/process simulations, students will enhance their critical thinking skills and gain an understanding of key skills and best practices of effective global leaders.

Appendix A:
Lightcast Summary
Maine MBA: Organizational Leadership Concentration
Employment Potential

The Lightcast report (formerly Burning Glass) suggests that an MBA with an organizational leadership concentration is useful in the market. The following describes the (1) the unique job postings, and regional trends, and (2) a brief description of the types of jobs this degree opens up for potential candidates.

Unique Job Postings

- In 2022 there were 5,193 positions in Maine that include the education of Organizational Leadership and an MBA, with 498 annual openings. Such positions are projected to continue to trend up at 7.4% between 2022 and 2026, with a median annual salary of $91,300.
- In 2022 there were 91,225 positions in New England that include the education of Organizational Leadership and an MBA, with 8,419 annual openings. Such positions are projected to continue to trend up at 6.4% between 2022 and 2026, with a median annual salary of $120,200 per year.
- In 2022 there were 1.3 million positions nationwide that include the education of Organizational Leadership and an MBA, with 135,997 annual openings. Such positions are projected to continue to trend up at 8.4% between 2022 and 2026, with a median annual salary of $107,900.

Brief Description of Possible Jobs with this degree combination.

- In Maine typical jobs are Operations Managers, Management Analysts, Sales Managers, and Financial Specialists. The top posted jobs are Financial Analysts, Product Manager and Directors of Finance. Top companies posting these jobs are Intel (124), Guidehouse (96), Elevance Health (90).
- In New England typical jobs are General and Operations Managers, Management Analysts, Sales Managers, Financial Managers, and Financial and Investment Analysts. The top posted jobs are Financial Managers, Product Managers, and Business Analysts. Top companies posting these jobs are Takeda Pharmaceutical (2,073) Harvard University (2,276), and Raytheon Technologies (1,038).
- Nationwide the typical jobs are General and Operations Managers, Management Analysts, Financial Analysts, and Sales Managers. Top companies posting these jobs are Citigroup (21,523), Robert Half (8,896), and Elevance Health (7,936).

Approval Page for MBA Concentration in Organizational Leadership

Submitted by:

Elizabeth Goryunova, Department Chair 09/25/20224

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

Approved by:

10/7/24

(Dean, Graduate School of Business) (Date)

Jane Kuenz Jane Kuenz 09/29/2024

(Dean, College of Arts, Humanities, and Social Sciences, USM) (Date)

Hannah Carter Hannah Carter 10/3/24

(Associate Provost, Division of Lifelong Learning) (Date)

(Vice President for Research and Dean of the Graduate School) (Date)

(Executive Vice President for Academic Affairs & Provost) (Date)

(President, University of Maine) (Date)

Guide for Incorporating Information about Generative AI into Syllabi

We recommend that faculty share their policy for students' use of generative AI services and tools in their course syllabi.

There are a range of genAI services and an even larger (and growing) range of ways students can use them. Courses, and assignments in courses, have targeted learning outcomes which may include or exclude students' use of genAI. Word processing software, email, texting, photo editing software, operating systems, instructional packages, and many other ubiquitous software and service platforms now include genAI functionality. The University of Maine System and individual UMaine colleges provide students with accounts for genAI services. Students may encounter varying genAI policies and expectations from course to course.

For these reasons, the absence of a stated policy regarding genAI on a syllabus is ambiguous. Communicating clearly about your genAI expectations and strategies will help students navigate this evolving landscape.

What follows are sample categories and language faculty may find useful when developing their genAI course policy for their syllabi.

****

Course Information

- **Course Description:** When describing the course, instructors could clearly state whether the course will require, encourage, permit, or forbid the use of generative AI tools. For example, if a course aims to develop students' data analysis skills using AI, the course description could mention the use of specific AI tools or platforms relevant to the field.
- **Prerequisites:** If the course requires students to use specific generative AI tools, any necessary technical skills or prior knowledge should be listed as prerequisites. For example, if students need to use Python programming for AI-related tasks, basic Python knowledge should be a prerequisite.
- **Digital Services, Hardware, Software:** The course instructor could provide details about any specific generative AI services students will use during the course or, at least, the types of generative AI services students will explore during the course.

Instructional Materials and Methods

- **Generative AI Tools:** This section can introduce categories of generative AI, explaining their capabilities and potential applications within the course. For example:

Commented [1]: can this link out to an information page about how AI is present/engaged at UMaine and in higher ed in general? I am just thinking of colleagues for whom this helpful context may bring up more questions and apprehension than answers... At the same time, I don't think this document should provide the details, which is why maybe a hyperlink to more information with examples?

Commented [2]: this sentence is confusing to me... Is the purpose here to state that including a genAI policy statement would remove some ambiguity? If so, then, I'd re-write it in such positive terms - for example:

Given the varieties of ways in which genAI is used in different courses, including an explicit policy statement in the syllabus would improve course-specific clarity and transparency for students, so that they can better succeed within the particular academic context.

Commented [3]: I like that consideration is given to the different sections of the syllabus and where/how policy statements may be included - that's very helpful

Commented [4]: If the actual course description is changed, that will have to undergo a Curriculog approval, so maybe using the language of "amending" or something like that

    a. Embedded AI or the kind that is infiltrating our email clients and productivity software with spelling and grammar checking as well as autocomplete, graphics software with background filling, search engines, operating systems, phone apps, etc.
    b. General purpose, stand-alone genAI, such as ChatGPT, Gemini, Claude, Dall-E
    c. AI agents that complete tasks such as information gathering and presentation
    d. Discipline-specific genAI such as iNaturalist, Merlin, OverflowAI
    e. GenAI engines used to process large data sets
- The instructor should clarify which categories of AI tools are permitted or encouraged for specific tasks, such as research, writing, data analysis, or creative projects. For example, the syllabus could state whether students may or may not use general-purpose tools like ChatGPT for brainstorming or discipline-specific tools for identification.

Course Goals

The instructor could describe the ways in which students will and/or will not use generative AI services to meet specific learning goals in the course. Provide concrete examples of how each category of AI can or cannot be used within the course. Explain the rationale for permitting or restricting the use of certain AI tools based on the course's learning outcomes and the desired skills students should develop. For example, if the course emphasizes critical thinking and original analysis, instructors could explain why they discourage the use of general-purpose AI for generating content, but support the use of spelling and grammar checking.

Course Policies

- **Academic Honesty:** The policy should explicitly address the acceptable use of generative AI. It should clarify what constitutes plagiarism when using AI, such as submitting AI-generated content as one's own or failing to properly cite AI assistance. The syllabus should also state the consequences of violating the AI policy.
- **Equity and Access:** Acknowledge the potential equity issues related to access to paid versions of AI tools. Suggest alternative solutions for students who may not have access to paid versions, such as providing access to institutional resources or designing assignments that can be completed with free or University-provided tools. For example, instructors could recommend specific free AI tools or offer guidance on effectively using them.

Course Schedule

- **Integration of AI:** The course schedule should indicate when specific categories of AI tools will be introduced, discussed, or used for assignments. This allows students to anticipate and prepare for AI-related activities. For instance, a week could be dedicated to exploring discipline-specific AI tools, followed by an assignment requiring their application.

Additional Considerations

Commented [5]: is this language going to be familiar to student and/or faculty?

Commented [6]: maybe 'automatically used in our email service (i.e. gmail)'?

- **Citing AI Use:** Provide clear guidelines on how students should cite the use of AI tools, whether through footnotes, endnotes, or a blanket acknowledgment. Offer examples and specify the required information for the citation method of your discipline or that you wish them to use, if different.
- **Evolving Nature of AI:** Emphasize that AI technologies are constantly evolving and that policies and guidelines may be updated to reflect new developments. Encourage students to stay informed about the latest advancements in AI and their potential implications.

Incorporating these elements into the syllabus can help instructors communicate effectively about permissible AI use, foster ethical practices, and prepare students for an AI-driven future.

Example AI Policy Language to use in Course Descriptions (or elsewhere)

Pick one, mix-and-match, or craft your own.

Commented [7]: I like this wording - it provides help without having strict guidelines

A. Use is required

The learning outcomes of this course require you to use generative AI engines to help identify, analyze, sort, or otherwise process data. Course objectives include gaining a level of familiarity-to-mastery of the use of genAI systems in the discipline, including prompt engineering. These tools could include generative AI services into which you upload data to identify patterns and trends. Alternatively, they could include generative AI services that have become essential tools of the discipline which you should master as part of successfully completing this course.

B. Use to generate content and materials for components of assignments

The learning outcomes for this course include developing and demonstrating proficiency in the use of generative AI agents to search for, gather and process data. You will be assessed in part on your skills at guiding and managing the agents you use to provide accurate, appropriate, and/or useful results. Please keep in mind that relying on a generative AI tool may result in your submission of inaccurate content. It is your responsibility—not the tool's—to assure the quality, integrity, and accuracy of work you submit in this course.

C. Use to analyze AI

The learning outcomes of this course include your ability to assess, analyze and explain the capacity of particular generative AI services for completing tasks in the discipline.

For these reasons, your use of generative AI will be required in some areas, but you should not use it for your critical evaluation.

D. Use to generate ideas and support learning

In this course, you may use AI tools as a form of learning assistant. Similar to how you may collaborate with peers and peer tutors for things such as brainstorming, getting feedback, revising, or editing your own work. However, you may not submit any work generated by an AI service as your own.

E. Use minimally

The learning outcomes of this course focus on critical thinking, creativity, and furthering your mastery of the fundamental skills and the body of knowledge addressed in this course. For these reasons, you may submit assignments on which you have minimally relied on generative AI services for such things as spell checking, grammar checking, debugging, filling in the background of images, and similar necessary tasks, which you are fully capable of doing on your own.

F. Use is forbidden

The learning outcomes of this course focus on core skills which you should master prior to relying on automated services to perform tasks for you. For these reasons, you should not submit any work that is the product of or has been informed by generative AI.