



**Graduate Board**  
**Thursday, April 25, 2024**  
**57 Stodder Hall**

**12:30-2:00 pm**

**AGENDA**

1. Review/approval of the March 28, 2024 Graduate Board minutes
2. Review/approval of the April 2, 2024 Graduate Curriculum Committee report
3. Announcements/updates
  - Commencement update – Kathleen Harding-Heber
  - Graduate student workers union collective bargaining update
  - R1 ranking and faculty feedback
  - Jordan Miner –UMaine 3MT winner
  - April 26, 3pm [NAGS Final](#)
  - Stodder faculty member in residence opening
  - Katie Ashley – certificates for outstanding grad students
4. Introduction of new Graduate Board members for AY 24-25
5. Election of AY 24-25 Graduate Executive Committee
6. New certificate proposals
  - Graduate certificate in accounting
  - Graduate certificate in materials science and engineering
  - Graduate certificate in classroom-based comprehensive literacy practices
  - Graduate certificate in comprehensive literacy coaching
7. Items arising



**Graduate Board**  
**Thursday, March 28, 2024**  
**57 Stodder Hall**

**12:30-2:00 pm**

AGENDA

Meeting called to order 12:35PM

Attendance: K. Gillon, K. Ashley, C. Beitzl, M. Brichacek, S. Butler, S. Delcourt, D. Dryer, A. Goupee, A. Gray, A. Knowles, C. Marzilli, T. Nunez, J. Riccardi, D. Sandweiss, T. Schwartz, G. Schwieterman, J. Buttane.

Zoom Attendance: J. Artesani, T. Bowden, M. Camire, N. Emanetoglu, K. Evans, M. Gardner, N. O'Reilly, E. Landis, P. Libby, R. MacAulay, S. Marzilli, S. Nittel, E. Pandiscio, B. Peterson, J. Romero Gomez, F. Rondeau, S. Wright, T. Yoo.

Guests: Laura Millay, Ryan Weatherbee, Debra Allen, OIRA

1. Review/approval of the March 7, 2024 Graduate Board minutes.
  - 2 Amendments from Mary Ellen Camire:
    - i. Partial Trustee Tuition Scholarship – students last name: Ferris (not Perroro)
    - ii. Clarification of statement: had an issue with **lecturers** allowing students to make up exams anytime - so **the TAs** were constantly grading exams and shuffling schedules
      1. Colleen Marzilli – motion to approve
      2. 2<sup>nd</sup> – Tom Schwartz
      3. Unanimous approval –  
Dan Sandweiss – abstained
2. Review/approval of the March 12, 2024 Curriculum Committee report.

***New Courses:***

**CIE 536** Applications of Organic Chemistry Principles  
**EHD 547** Technology and Teacher Leadership  
**LMS 517** PK-12 Literature in School Libraries  
**LMS 559** School Library Leadership  
**LMS 657** Seminar in Library and Media Studies

**LMS 580** Summer Technology Institute for Library and Media Studies  
**MBA 610** Managerial Accounting for Decision Making  
**MBA 611** Financial Reporting for Governmental and Nonprofit Entities  
**MBA 612** Fraud Investigation  
**MBA 615** Accounting Data Analytics  
**MBA 621** Launching Sustainable Ventures  
**MBA 622** Triple Bottom Line Business

***Modifications:***

**EAD 692** Superintendent Internship I  
**POS 531** Topics in Comparative Politics  
**POS 549** Seminar in American Politics  
**POS 596** Directed Research in Political Science

Colleen Marzilli – motion to approve  
Matthew Brichacek – 2nd

Discussion - Matthew Brichacek - concerned about the course titled applications of organic chemistry and it being overly vague - listed with organic chemistry and the broad nature of environmental chemistry

Dan Sandweiss – suggested a course title change to CIE 536: Applications of Organic Chemistry Principles *to Environmental Engineering*.

Unanimous approval

3. Announcements/updates

- Commencement update
  - i. The Graduate School has received notification from 499 students who plan to attend Graduate Commencement. Expect that 375-400 will march on May 3<sup>rd</sup> (including approximately 50 PhD students).
    1. Breakdown by program as follows:
      - a. EDHD – 82
      - b. MCEC – 48
      - c. LAS – 68
      - d. ELHS – 128
      - e. Graduate School – 18
      - f. GSB – 85
      - g. Doctoral – 70 (appx 50 have secured regalia)
  - ii. There are 39 volunteers signed up for the Graduate Ceremony, 28 for the Undergrad AM, and 30 for the Undergrad PM ceremonies. Graduate Ceremony can operate with 40, Undergraduate would like at least 70 per ceremony.
  - iii. Outstanding Graduate Student nominations close 3/30/24 (those submitted on time will be recognized in the commencement program and at the GSG Formal on Saturday, April 20 at 6:00PM in the IMRC. We have 45 nominations currently.
  - iv. There are 5 faculty marshalls – ideally 6 would be referred. If anyone is interested, please reach out to Sam Carrell
  - v. Big change this year – to move the College Deans to the stage party. Logistically, Executive Committee Members could lead the students in by

college in place of the Deans, joining the Deans when they lead the students to the stage.

- UMSS 24 – April 12
    - i. Planning committee chaired by Caitlin Howell – Judges are still needed – please spread the word.
    - ii. Patty Libby requested the sign-up link and the information on symposium hours.
  - Graduate student workers union collective bargaining update
    - i. Graduate Student Work-In: 60-70 Graduate Students working in the lobby of the Ferland building to show support.
    - ii. A number of proposals are in final draft or have been tentatively agreed upon. S. Delcourt reminded GB members that there is a [website](#) to track the status of proposals and negotiations
    - iii. Some graduate workers have met with the collective bargaining team to tell their stories – one about being released of her TA duties unexpectedly. One related to family leave & the ability to deal with lactation concerns while on the job. All very compelling stories.
    - iv. Mary Ellen Camire added that there is now a lactation and wellness room in Hitchner.
    - v. Bryan Peterson added the following in the Zoom chat:
      - 1. Thanks for mentioning this, Mary Ellen! Description of the room: A wellness/lactation room for students/staff/faculty is available in 101A Hitchner Hall. This room features comfortable furniture, a refrigerator, and the room can be locked from the inside for privacy. For questions or to arrange a specific time please email [lily.hesseltine@maine.edu](mailto:lily.hesseltine@maine.edu) .  
The room is available during regular business hours of 8-4:30.
4. Graduate Program Assessment Update – Laura Millay and Ryan Weatherbee – OIRA  
Deb Allen – joining on Zoom
- General update on program assessment
    - i. Page 10-11 of the Graduate Board packet
    - ii. Ryan asked that GB members send any corrections/revisions to him since we would like to continue to make progress on graduate assessment. We have learning outcomes from about 60% of the programs at this point. The next phase is developing a curriculum map. We have initial assessment plans from 27% of programs at this point.
    - iii. Laura – enjoys working with all of the programs and appreciates the engagement.
  - Data collection is beginning - Liberal Arts and Sciences and Interdisciplinary Program first reports due June 30th.
  - Upcoming information sessions on program assessment listed on OIRA website: April 4, April 10, and May 6 – sessions for programs who need to complete reports by June.
  - OIRA is happy to meet with programs anytime if they have questions.
  - For all other programs (outside of Liberal Arts and Sciences and Interdisciplinary Programs) Oct 30 next year is the first reporting deadline.
  - Scott brought up a recent discussion that OIRA had had with the Executive

Committee regarding the Graduate School learning goal related to ethics. While all students in thesis programs are required to take a RCR course, developing measurable outcomes related to ethics has proven problematic in some programs.

- Keith Evans requested where to find the Graduate School outcome goals that should be linked to the individual program learning outcomes.
5. New certificate proposal – Advanced Library and Media Specialist – Donna Karno
- New – 2<sup>nd</sup> Graduate Certificate in Library and Media Specialist
  - Maine DOE revised endorsements – changed library and media specialist to a 24-credit endorsement. The state of Maine currently does not have a program that meets that requirement. The current certificate is 15 credits. The idea is to add a 9-credit certificate that would be able to be stacked to meet the 24 credit requirement.
  - S. Delcourt asked why not a master’s degree? D. Karno replied that the program is working toward that direction, but the accreditation process required is time consuming. We will develop this in the future while we meet the students’ needs right now – and meet the State requirements.
    - i. Motion to approve – Dan Sandweiss
    - ii. 2<sup>nd</sup> - Colleen Marzilli
      - a) Discussion: Patty Libby asked if Hannah Carter has signed off on it as of yet for UMaineOnline/DLL.
      - b) Scott assumed that Hannah approved given the relationship of the Library and Media Specialist certificate to the Instructional Technology program, but will make sure that the document has Hannah’s signature as well.
    - iii. Unanimous approval (conditional upon Hannah’s approval for DLL)
6. Graduate Faculty appointments - issue raised by Pari Rahimzadeh
- Scott provided a quick review of policy. The Graduate School has a binder of each programs’ Graduate Faculty appointment guidelines. Initial concerns with Graduate Faculty appointment criteria were related to the differences in what graduate programs considered to be appropriate criteria for each program (rather than a one size fits all approach). Consequently, new appointment criteria were aligned with promotion and tenure guidelines to make them more program specific. Based on the Graduate School’s Constitution, initial appointments to the Graduate Faculty are made through the review for promotion and tenure (usually 6 years), and then every 5 years after that point.
  - Pari had asked whether the Graduate Faculty reappointment process could be streamlined to link it to post-tenure review, using the review letter as the basis for reappointment.
  - Nuri Emanetoglu – in general in favor of doing it at the same time – do other departments give input in the PTR process?
  - Sandy Butler and Anne Knowles spoke in support of the current ROQ process, stating that the process is relatively straightforward and not onerous.
  - Jacqueline Gill asked if the ROQ form could be modified to better track student committees each faculty member serves on (especially important for external Graduate Faculty members who may not need to be reappointed). Scott added that the former appointment process appointed external faculty for the “duration of a

student's committee," but in some cases the term never expired because the external faculty member was continuously added to new committees.

- Dan Sandweiss suggested that Graduate Coordinators keep a copy of the files electronically to retain that information. (Grad Coordinators & Admins should have access.)
- Tom Schwartz has had issues maintaining the data since he does not have an admin to assist. Suggestion to have Emily add the information on whose committee(s) that faculty member sits, when she sends the ROQ requests out.
- S. Delcourt said he will talk to Emily Kuhlmann about possibly adding this information to the current form and/or the Graduate Faculty database.
- Does not seem like most programs think the Graduate Faculty reappointment process needs to be changed.

#### 7. Items arising

- Accounting certificate – Norm is awaiting Hannah Carter's signature before moving it forward.
- English language testing -Scott has consulted with Orlina Boteva in OIP, and the Graduate school is reviewing the policies at other universities. There are arguments to be made on both sides – students from English-speaking countries who submit unacceptable English language scores and the arbitrary nature of requiring English test scores from applicants in English-speaking countries.
- There is also program variability in how much of a problem is caused by not requiring English language scores. Case in point –the MBA program is overwhelmed with processing international applications from students who will not matriculate without financial assistance.
  - i. Currently waiving application fees for MBA applicants – could the program implement a modest fee to screen out non-serious applicants?
  - ii. Meghan mentioned that with the removal of the application fee, the program has seen an increase in both domestic and international applications. The MBA program has 2 funded GAs and at least 400 people interested in those spots.
  - iii. Nuri Emanetoglu – chat comment:

For native speakers from English speaking countries, is the problem with proficiency, accent, or dialect? Written or spoken English? We don't speak the King's English here and spell neighbour wrong. And 99% of Americans can't identify the correct sport when talking about football! ☺
  - iv. Kathleen Gillon (HED) suggested that they have had success with the fee waivers too – but maybe consider adding a program limit on the waiver to avoid students applying to multiple programs.
  - v. Gail Schweiterman – news of Ivy schools reversing their decisions not to require the GRE. How might this impact other research universities? Scott replied that individual programs may still require the GRE just as the MBA program requires the GMAT

Motion to adjourn – 1:43 PM

Tom Schwartz – motion

Sandy Bulter – 2<sup>nd</sup>.

## CURRICULUM COMMITTEE REPORT

The Curriculum Committee met on April 2, 2024 and is recommending the following courses to the Graduate Board for approval at its April 25th meeting.

### *New Courses:*

**BIO 535** Insect Taxonomy

**BIO 553** Forest Entomology

**INT 504** Complex Problem-Solving for Future Leaders

**INT 505** Complex Problem-Solving for Future Leaders Seminar

**INT 540** Advances in Materials I

**INT 541** Advances in Materials II

**MEE 522** Advances in Materials I

**MEE 524** Advances in Materials II

**NUR 563** Evidence-Based Practice for Advanced Nursing Practice

**NUR 566** Innovations in Teaching and Learning

**SED 510** Teaching Early Childhood Special Education

**WLE 511** Animal Demographic Estimation

**Modifications:**

**ENG 698** Independent Study

**DSE 503** Systems Foundations of Data Science and Engineering

**DSE 510** Data Science and Engineering Practicum

**NUR 644** Healthcare Leadership and Management

**SIE 505** Formal Foundations For Information Science

**SIE 516** Interactive Technologies for Solving Real-World Problems

**SIE 550** Design of Information Systems

**SIE 555** Spatial Database Systems

**SIE 558** Real-Time Sensor Data Streams

**SIE 559** Geosensor Networks

**SIE 580** Ontology Engineering Theory and Practice

**SWK 595** Field Practicum in Social Work

**SWK 695** Advanced Field Practicum in Social Work

## **Position Announcement: Faculty Member in Residence for Stodder Hall**

The Graduate School seeks a University of Maine faculty member to serve as part of a residence hall staff team in the graduate student residence hall in Stodder.

The faculty member in residence works with two graduate student community coordinators and the Graduate School to support the day to day needs of approximately 50 graduate students and nontraditional undergraduate students who reside in Stodder. Primary duties include:

- Fostering a community culture based on respect and cooperation among residents.
- Addressing concerns that arise among the residence hall community after 4:30pm in the afternoon and on weekends and holidays
- Promoting policies that ensure the safety and well-being of the residence community including use of the common kitchens, emergency drills, and observance of quiet hours
- Helping to coordinate extracurricular and social events for residents

Benefits of the faculty member in residence position include paid room and board for a 2BR apartment in Stodder and a meal plan for campus dining.

Interested individuals should send a cover letter and CV to Patricia Perry (patricia.perry1@maine.edu), Graduate School, Stodder Hall. Couples are invited to apply.

Prior residence hall experience is preferred.

**MEMO**

TO: Kody Varahramyan, Vice President for Research and Dean of the Graduate School  
FROM: Norm O'Reilly, Dean, Graduate School of Business  
SUBJECT: Graduate Certificate in Accounting Proposal  
DATE: February 29, 2024

Dr. Varahramyan,

The Graduate School of Business (GSB) proposes to establish a **Graduate Certificate in Accounting**. The GSB curriculum committee, GSB steering committee, and GSB faculty committee have approved this proposal. The GSB steering and faculty committees include the Deans of the Maine Business School and the University of Southern Maine School of Business.

This would be a new certificate for the GSB, adding to our current certificates in Business Administration and Business Analytics.

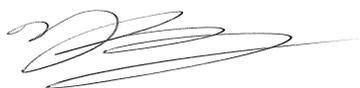
Rationale

Over the past 2 years, we have consulted with the accounting industry in Maine, investigated the market, worked with the Maine Society for CPAs, and engaged our accounting faculty, drawn from the AACSB-accredited business schools at both the University of Maine and the University of Southern Maine.

These consultations have led us to build the following offering to help fulfill the needs of the accounting professor in Maine and align with industry trends going forward.

A more detailed rationale is provided in the attached proposal.

Thank you for your consideration.



Norm O'Reilly, Dean, Graduate School of Business

# **University of Maine Graduate School of Business Proposal for a Graduate Certificate in Accounting**

## **Proposal Contents**

1. Certificate Coordinators
2. Rationale
3. Program Demand
4. Program Resource Needs
5. Requirements
6. Prerequisites
7. Proposed Course Sequence
8. Educational Objectives
9. Graduate Certificate Program Learning Outcomes
10. Faculty
11. Mode of Delivery
12. Timeframe for Certificate Completion
13. Approval Page for Signatures

## **Certificate Coordinators**

Henri Akono, PhD, Associate Professor of Accounting  
Norm O'Reilly, PhD, Dean, Graduate School of Business

## **Rationale**

The accounting profession is going through major transformations including the adoption of new technologies, the embracing of the analytics mindset, and the introduction of the CPA evolution framework. Today's accountants must not only be well versed in traditional accounting concepts and techniques, but they also need to develop an additional skillset that incorporates the ability to use new technologies and big data to conduct financial reporting tasks, audit & tax activities, business analysis, and others as needed by their organizations. The current MBA in accounting provides some tools in that regard but might not be well-suited for a growing population of learners that is not interested in spending the required time and money needed to obtain a master's degree, or who might not be ready to commit to an MBA program.

To meet this need, the Graduate Accounting Certificate is a 15-credit online program designed to be rigorous, flexible, and affordable. The curriculum is designed to provide in-depth graduate accounting knowledge to learners with and/or without a background in accounting.

## **Program Demand**

The Graduate Accounting Certificate is positioned to appeal to an additional demographic of students beyond that of the existing MBA in Accounting program, in that the curriculum is designed to provide in-depth graduate accounting knowledge to learners with and/or without a background in accounting. Over the past 2 years, the Graduate School of Business has consulted with more than 30 accounting firms in the state to learn of their need for this type of pathway to hire talent into the accounting field. These consultations included a retreat co-hosted with the Maine Society for CPAs in the spring of 2022 with more than 20 firms in attendance, as well as numerous individual meetings.

Prospective students for whom this certificate would be desirable include current working accounting professionals interested in graduate education, current working professionals interested in a career switch to accounting, college graduates or working professionals interested in pursuing the Certified Management Accounting (CMA) certification, and college graduates or working professionals interested in pursuing the Certified Fraud Examination (CFE) certification, among others. According to Trish Bingham, the Executive Director of the Maine Society for CPAs, there is a significant need for qualified bookkeepers and accountants in the nonprofit sector, as one relevant example.

The Lightcast data set for target occupations indicates a rise in employment projections over a four-year period (2022-2026) for positions requiring graduate-level accounting education, with an average regional New England growth of 5.9%, the growth for Maine at 4.9%, and the growth nationwide at 7.6%.

In the New England region, graduate certificate programs in accounting are currently only available in Massachusetts and Connecticut. In total, there are 7 such programs available, 4 of which are offered by public universities, indicating that the availability of such programs is relatively low in the region. Given this context, it becomes crucial for states like Maine to consider the importance of having a graduate certificate program in accounting. With neighboring states offering these programs, Maine may need help in attracting and retaining talent in the field of accounting. At present, individuals seeking graduate education in accounting may pursue their education in neighboring states where relevant programs are available. Offering a graduate certificate in accounting at a public university in Maine would not only cater to the educational needs of aspiring accountants within the states but also contribute to the overall competitiveness and attractiveness of Maine's educational landscape in the field of accounting.

## **Program Resource Needs**

The graduate-level accounting course sequence will be delivered by existing subject-area faculty at the Graduate School of Business and require no new resources.

- One of the courses in the proposed certificate (MBA 609) is an existing core course in the MBA degree program sequence and is currently offered in regular rotation.
- The other 4 courses in the proposed certificate (MBA 610, MBA 611, MBA 612, and MBA 615) were approved by Graduate School of Business faculty in January 2024 and are currently awaiting review by the Graduate School Curriculum Committee. If approved, they will serve as electives in the MBA program irrespective of the passage of a Graduate Certificate in Accounting.
  - Three of the 4 new courses (MBA 610, MBA 612, and MBA 615) have been taught as topics courses within the MBA program to satisfy elective demand for the MBA in Accounting.
  - One of the 4 new courses (MBA 611) will be taught instead of an undergraduate course (ACC 409 – Accounting for Governmental and Not-for-Profit Entities) that was previously allowed as an elective for the MBA in Accounting.
  - With the formal adoption of these 4 courses, the program will no longer need to make use of accounting topics courses in regular rotation.

Thus, the courses in the proposed Graduate Certificate in Accounting will make use of existing faculty resources for the dual purpose of offering a new Certificate program and enhancing the elective options of the existing MBA program.

## **Requirements**

The proposed free-standing certificate program requires the completion of 15 credits (5 courses) as described in the proposed course sequence section below.

## **Prerequisites**

An earned baccalaureate degree or its equivalent from an accredited college or university is required for admission. A preferred grade point average of 3.5 and a minimum grade point average of 3.0 applies to all candidates. Further, a minimum TOEFL score of 82, 6.5 (IELTS), 65 (PTE Academic), or 115 (Duolingo English Test) is required for international applicants, unless the applicant has received a degree from an English-speaking institution.

Additionally, applicants should have taken financial accounting (ACC 201 or equivalent) and managerial accounting (ACC 202 or equivalent), have significant professional experience in these areas, or complete the Graduate School of Business accounting tutorial as a provision of admission.

Courses completed for this certificate may be counted towards a Masters of Business Administration, if applicable.

### **Proposed Course Sequence**

The proposed certificate program requires the completion of 15 credits of coursework (5 courses) that can be taken in any order. The prerequisite for all 5 courses is the following: “Graduate School of Business degree program students, or permission from GSB.”

MBA 609 – Financial Statement Analysis (**3 credits**)

MBA 610 – Managerial Accounting for Decision Making (**3 credits**)

MBA 611 – Financial Reporting for Governmental and Nonprofit entities (**3 credits**)

MBA 612 – Fraud Investigation (**3 credits**)

MBA 615 – Accounting Data Analytics (**3 credits**)

### **Educational Objectives**

- Acquire advanced skillsets in business analysis and reporting as well as in accounting data analytics.
- Increase fluency with new technological tools like Tableau or PowerBi, in addition to Excel, to utilize the vast amounts of data amassed by organizations in today’s business environment.
- Develop skills necessary to gain insights from big data and communicate those insights effectively in order to help organization make better strategic decisions.

### **Graduate Certificate Program Learning Outcomes**

Upon completion of this certificate, learners will be able to:

- Analyze financial statements for strategic decision-making;
- Organize and evaluate managerial accounting information for strategic decision-making;
- Analyze financial information and recognize financial statement fraud;
- Evaluate accounting information for strategic decision-making by government and nonprofit organizations;
- Analyze big accounting-related data using an analytics mindset for the purpose of making strategic business decisions, including audit, tax, financial reporting, among others.

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## **Faculty**

The following graduate faculty from the University of Maine and University of Southern Maine will teach the proposed certificate courses:

1. MBA 609: Ike Ndu (USM), Dave Barrett (UM)
2. MBA 610: Henri Akono (UM)
3. MBA 611: Dave Barrett (UM)
4. MBA 612: Ike Ndu (USM)
5. MBA 615: Henri Akono (UM)

## **Mode of Delivery**

The courses in this certificate can be completed entirely in the online, asynchronous, 8-week format. Additionally, MBA 609 will be offered in the live, hy-flex format in Orono and Portland every other Spring.

## **Timeframe for Certificate Completion**

MBA 609, which also serves as a core course for the MaineMBA, is offered 5 times per year: twice in the Fall, twice in the Spring, and once in the Summer. The other courses in the sequence will be offered in a regular rotation, ensuring that at least one course for the certificate will be available in each semester: Fall, Spring, and Summer. 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.

**Approval Page for Graduate Certificate in Accounting**

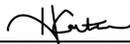
**Submitted by:**

\_\_\_\_\_  
(Dr. Henri Akono, Person Responsible for Program Plan) (Feb 29, 2024)

**Approved by:**



\_\_\_\_\_  
(Dean, Graduate School of Business) (Feb 29, 2024)

 04/05/2024  
\_\_\_\_\_  
(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)

*Graduate Certificate in Accounting  
(University of Maine)*

## PROPOSAL

### Graduate Certificate in Materials Science and Engineering

Sharmila M. Mukhopadhyay

#### Steering Committee:

- Sharmila M. Mukhopadhyay (FIRST and MEE), Convener
- Douglas Gardner (SFR, ASCC and FBRI)
- David Neivandt (CBE)
- Mauricio Pereira da Cunha (ECE)
- Carl Tripp (Chemistry)

**Rationale:** Recent Federal and State initiatives related to the Chips and Science Act, Clean Energy Boom and pollutant (such as PFAS) challenges are driving new investment and job growth in every state across the nation including Maine. An essential requirement for growth in these areas is a workforce with basic training in the science and engineering of materials that enable the new devices for effective solutions. Workforce in this area with basic training and advanced degrees in STEM disciplines can benefit significantly from a short Certificate Program that will provide basic working knowledge on processing-structure-property relationships of advanced materials, which is the backbone of all new devices related to above initiatives.

**Workforce needs:** In addition to for-profit industries related to semiconductor, clean energy and forest economies, the University of Maine is also expanding in green energy infrastructure and manufacturing. A Certificate in Materials Science and Engineering will help support the workforce training needs for all these growth areas.

**Impact:** The State of Maine does not yet have any formal program in this important area of Materials Science and Engineering. However, there are several topical courses relevant to materials technologies scattered throughout the university and, very recently, we were able to combine them to create an interdisciplinary Faculty Group and PhD program in Materials Science and Engineering. Some elements of this effort can now be leveraged to build a Certificate Program for working professionals or students in other programs.

#### Intended Audience and Eligibility Criteria:

Students with an earned baccalaureate degree in a STEM field from an accredited program is required for admission, with a minimum grade point average of 2.5 for all candidates. Any international student studying at UMaine on a student visa must meet minimum English language requirements as outlined in the Graduate School Website: UMaine Graduate School English Proficiency Scores.

#### Learning Objectives:

Students will develop an understanding of the fundamental science and engineering principles relevant to materials that include the relationships between nano/microstructure, characterization, properties, processing, performance, and design of materials. Specific outcomes include:

- 1) an ability to articulate differences between different types of materials.
- 2) an ability to predict how the atomistic structure of a material relates to its structural and functional properties.
- 3) an ability to understand the capabilities and interpret the results of common materials analysis tools.

4) an ability to acquire and apply new knowledge as needed in the field of materials, using appropriate learning strategies.

**Resource Needs:** Resource need is minimal to get started, since most elective courses are already being delivered across different Colleges and Departments. The only new components are (i) a Core Course sequence and (ii) a Webinar/Discussion series that will be mandatory for all students.

### **Curriculum Requirements:**

The certificate requires completion of four courses. While some of the courses will have hybrid or on-line options, students will be required to travel to the University of Maine for a 4-day visit to become familiar with selected facilities that support advances in MSE. Students will obtain the certificate by completing four courses with a grade of C or above and at least Grade of B or above in two of these courses.

### **Coursework**

1. Two core courses - Advances in Materials I and II (INT-540-541/ MEE-520-521) under approval
2. Two elective courses to be selected from the following list:

***Note that the following is a tentative list of electives that are likely to change with time. Some of the courses may be modified for hybrid mode offering if resources permit. In addition, special topic offerings with relevant course content can be approved on case-by-case basis.***

- ECE 465: Introduction to Sensors:
- ECE 466/598: Sensor Technology and Instrumentation: 4 credits
- SFR 570: Cellulose Nanomaterials and their Composites
- BEN 502: Advanced Materials in Bio-inspired Engineering
- CIE 543: Introduction to Composite Materials in Civil Engineering
- PHY 500: Topics in Materials Science – Thin Film Technology
- PHY 624: Solid State Physics I
- MEE 555: Smart materials
- CHE 533: Introduction to Polymer Processing
- CHE 540: Advanced Chemical Engineering Thermodynamics
- CHY 573: Computer Simulation Methods
- CHY 578: Nanoscience
- CHY 571: Topics in Advanced Physical Chemistry
- CIE 542 - Advanced Reinforced Concrete Design
- CIE 543: Introduction to Composite Materials in Civil Engineering
- CIE 598: Environmental Nanotechnology
- CIE 648: Fracture Mechanics
- ECE 663 - Design and Fabrication of Surface Wave Devices
- CHY 541- Topics in Analytical Chemistry, Spectroscopy & Vacuum Techniques
- SFR 570: Cellulose Nanomaterials and their Composites
- MEE 441/541: Manufacturing and Testing of Composites
- SFR 550: Wood-Polymer Hybrid Composites

- BEN 402: Biomaterials and the Cellular Interface
- SFR 456/556: Physical and Mechanical Properties of Sustainable Materials

Approvals:

*Giovanna Guidoboni*  
Giovanna Guidoboni (Apr 3, 2024 10:52 EDT)

Dr. Giovanna Guidoboni, Dean, Maine College of Engineering and Computing

*Emily O. Haddad*

Dr. Emily Haddad, Dean, College of Liberal Arts and Sciences

*Diane L. Rowland*

Dr. Diane Rowland, Dean, College of Earth, Life, and Health Sciences

**Memo**

April 4, 2024

**To:** Dr. Kody Varahramyan, Vice President for Research and Dean of the Graduate School

**From:** Dr. Jim Artesani, Associate Dean for Graduate Studies, Research, and Outreach, College of Education and Human Development

**Re:** New Graduate Certificate: Classroom-based Comprehensive Literacy Practices

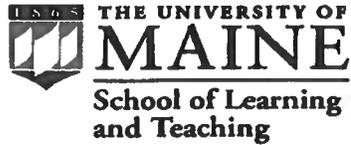
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This memo presents a proposal for a 15-credit-hour graduate certificate in Classroom-based Comprehensive Literacy Practices. This program, a valuable addition to the School of Learning and Teaching in the College of Education and Human Development (COEHD), is thoughtfully designed to enrich teachers' knowledge and skills in the crucial area of literacy in PreK-12 classrooms, thereby enhancing the quality of education provided to young children and adolescents.

Maine Partnerships in Comprehensive Literacy (MPCL), a long-standing outreach arm of the COEHD, supports this certificate. It is designed for teachers interested in improving their knowledge and skills in providing instruction in the critical area of literacy in PreK-12 classrooms. A hybrid instructional modality will involve face-to-face, on-site, and online coursework. In addition, some certificate courses may be applied to the M. Ed. program in literacy education and will provide a powerful opportunity to recruit practicing teachers for our graduate program.

All courses in this certificate are strategically aligned with our existing resources, ensuring the program's efficiency and long-term sustainability. Therefore, no additional curricular development, revision, or resources will be necessary to offer the program, which will facilitate its smooth implementation and continued success.

This proposal includes an overview of the program, rationale, course requirements and schedule, and existing resources to support the implementation and sustainability of this certificate.



**Submitted by:**

**Graduate Program in Literacy, Language and Culture**

**Graduate Certificate in Classroom-based Comprehensive Literacy Practices**

The proposed certificate program is designed for PreK-12 teachers working in schools. It is supported by Maine Partnerships in Comprehensive Literacy (MPCL) coaches interested in improving their knowledge and skills concerning literacy instruction in the classroom. It is a hybrid program involving face-to-face, on-site, and online coursework. Students may apply some of the coursework in this certificate to the M. Ed. program in literacy education. It consists of 15 credit hours of coursework and includes the following courses:

- EEL 543 Literacy Teaching and Learning I (2 credits)<sup>1</sup>
- EEL 544 Literacy Teaching and Learning II (1 credit)<sup>1</sup>
- EEL 552 An Exploration of the Writer's Workshop in PreK-12 Classrooms (3 credits)
- EEL 554 An Exploration of the Reader's Workshop in PreK-12 Classrooms (3 credits)
- EEL 556 An Exploration of the Language Workshop in PreK-12 Classrooms (3 credits)
- EEL 570 An Exploration of Phonological Awareness, Phonics and Word Study in PreK-6 Classrooms (3 credits)

**Rationale and Justification**

This proposed graduate certificate is intended to meet Maine's increasing, well-documented demand for teachers to implement a research-led literacy curriculum in the classroom. A recent report documented that 29% of Maine's fourth-grade students are proficient readers as measured by the National Assessment of Education Progress (NAEP) assessment (NCTQ, 2023). The target audience is classroom teachers who work with MPCL coaches; currently, there are 41 building-based coaches housed within 49 schools and 18 school districts across the state. Over 200 classroom teachers work daily in these schools, which impacts the learning of over 18,000 students in PreK-12 (Hogate, 2023). Leveraging the MPCL school improvement model, teachers will be better prepared to meet the needs of their students and thereby increase student achievement. It is important to note that there is a shortage of appropriately trained literacy educators in Maine and nationwide.

Since all of the courses included in the Graduate Certificate in Classroom-based Comprehensive Literacy Practices already exist, no additional curricular developments or revisions are needed, and no additional resources will be required to offer the certificate. The University of Maine vetted adjunct instructors working as MPCL coaches who will provide instruction to classroom teachers at the school or district level.

**Planned Schedule for Certificate in Classroom-based Comprehensive Literacy Practices**

Appendix A provides a sample program plan. The schedule for course offerings is as follows:

<sup>1</sup> EEL 543/544 are paired courses needed to earn three graduate credits.

Semester	Year	Course Number	Course Title
Fall	2024	EEL 543	Literacy Teaching and Learning I
Spring	2025	EEL 544	Literacy Teaching and Learning II
Fall	2025	EEL 552	An Exploration of the Writer's Workshop in PreK-12 Classrooms
Spring	2026	EEL 554	An Exploration of the Reader's Workshop in PreK-12 Classrooms
Fall	2026	EEL 556	An Exploration of the Language Workshop in PreK-12 Classrooms
Spring	2027	EEL 570	An Exploration of Phonological Awareness, Phonics, and Word Study in PreK-12 Classrooms

### Admission Criteria and Eligibility

A bachelor's degree in education from an accredited university will be required. One letter of recommendation to participate in the graduate certificate program will be required. One grade of a "C" may be earned towards completing this certificate. All other grades must be a "B" or above. No standardized test scores are required to enroll in this program.

### Program Faculty

The School of Learning and Teaching is fortunate to have several faculty members on its faculty with expertise and experience relevant to the Graduate Certificate in the MPCL Coaching program. Those who will be most involved in the program include:

Dr. William (Dee) Nichols, Coordinator  
 Dr. Debra Lewis Hogate (Literacy Outreach Collaborative)  
 Dr. Amanda Pingree, MPCL coach Five Town Community School District and adjunct instructor  
 Kelly Burns, MPCL district-level coach RSU 19 and adjunct instructor  
 Carol Celani, MPCL coach Auburn School Department, and adjunct instructor

### Reference

Darling-Hammond, L., Hyler, M. E., Gardner, M. (2017). *Effective Teacher Professional Development*. Palo Alto, CA: Learning Policy Institute. <https://doi.org/10.54300/122.311>.

Hogate, D. L. (2023). *Annual Report for the University Training Center for Reading Recovery and Comprehensive Literacy*, Executive Summary 2022-2023. Internal document University of Maine.

National Council on Teacher Quality (2023). [www.nctq.org/dmsView/Maine\\_Profile\\_-\\_TeacherPrepReviewReading](http://www.nctq.org/dmsView/Maine_Profile_-_TeacherPrepReviewReading). Retrieved 1/19/24.

<sup>1</sup> EEL 543/544 are paired courses needed to earn three graduate credits.

**APPENDIX A**

**SAMPLE PLAN OF STUDY**

<b>Graduate Concentration in Comprehensive Literacy Practices in the Classroom Plan of Study</b>						
<b>Student Name:</b>				<b>Advisor:</b>		
<b>Student ID Number:</b>						
	<b>Course</b>	<b>Title</b>	<b>Credits</b>	<b>Planned Semester</b>	<b>Actual Semester</b>	<b>Grade</b>
Complete all of the following :	EEL 543	Literacy Teaching and Learning I	2			
	EEL 544	Literacy Teaching and Learning II	1			
	EEL 552	An Exploration of the Writer's Workshop	3			
	EEL 554	An Exploration of the Reader's Workshop	3			
	EEL 556	An Exploration of the Language Workshop	3			
	EEL 570	An Exploration of Phonological Awareness, Phonics, and Word Study in PreK-6	3			
	<b>TOTAL PROGRAM CREDITS</b>		<b>15</b>			

<sup>1</sup> EEL 543/544 are paired courses needed to earn three graduate credits.

### College of Education and Human Development Graduate Certificate Proposal Routing Slip

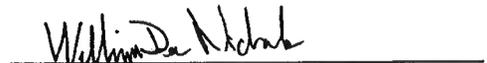
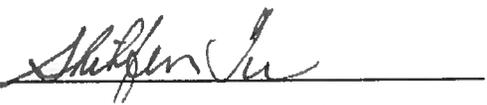
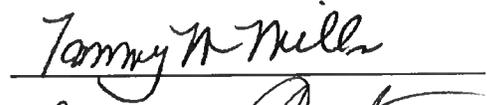
From: **School of Learning and Teaching - Literacy, Language and Culture Program**

**College of Education and Human Development**

Item: **New Graduate Certificate in Classroom-Based Comprehensive Literacy Practices**

*Below are the endorsements to accept this new graduate certificate.*

\*\*\*\*\*

Signature	Date	
	<u>1/26/2024</u>	William Dee Nichols, Program Coordinator Literacy, Language and Culture
	<u>2/5/2024</u>	Shihfen Tu, Director School of Learning and Teaching
	<u>2/12/2024</u>	Tammy Mills, COEHD Curriculum Committee
	<u>3/12/2024</u>	Jim Artesani, Associate Dean of Graduate Studies, Research, and Outreach
	<u>3/24/2024</u>	Penny Bishop, Dean of COEHD
_____	_____	Kody Varahramyan, Vice President for Research and Dean of the Graduate School
_____	_____	John Volin, Executive Vice President for Academic Affairs and Provost

**Memo**

April 1, 2024

To: Dr. Kody Varahramyan, Vice President for Research and Dean of the Graduate School

From: Dr. Jim Artesani, Associate Dean for Graduate Studies, Research, and Outreach, College of Education and Human Development

Re: New Graduate Certificate: Comprehensive Literacy Coaching

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The proposed certificate program is specifically designed to cater to the needs of Maine Partnerships in Comprehensive Literacy (MPCL) coaches, who play a crucial role in public schools PreK-12. This program offers them an opportunity to enhance their knowledge and skills in literacy coaching, thereby empowering them to make a more significant impact in their schools. It is a hybrid program involving face-to-face, on-site, and online coursework, providing flexibility and convenience. Importantly, some coursework in this certificate may be applied to an Education Specialist program in literacy education, furthering their professional growth.

The MPLC outreach program will provide the infrastructure to support this certificate and will be supported by COEHD literacy faculty. All courses in this certificate already exist; therefore, no additional curricular development, revision, or additional resources will be necessary to offer the program.

This proposal includes an overview of the program, rationale, course requirements and schedule, and existing resources to support the implementation and sustainability of this certificate.



**Submitted by:**

**Graduate Program in Literacy, Language and Culture**

**Graduate Certificate in Comprehensive Literacy Coaching**

The proposed certificate program is designed for Maine Partnerships in Comprehensive Literacy (MPCL) coaches working in public schools PreK-12 interested in improving their knowledge and skills concerning literacy coaching. It is a hybrid program involving face-to-face, on-site, and online coursework. Students may apply some of the coursework in this certificate to an Education Specialist program in literacy education. It consists of 15 credit hours of coursework and includes the following courses:

- EEL 580 Theoretical Perspectives in MPCL Coaching I (3 credits)<sup>1</sup>
- EEL 581 Theoretical Perspectives in MPCL Coaching II (3 credits)<sup>1</sup>
- EEL 582 Clinical Practices in MPCL Coaching I (2 credits)<sup>1</sup>
- EEL 583 Clinical Practices in MPCL Coaching II (1 credit)<sup>1</sup>
- EEL 585 Reflective Practice (3 credits)
- EHD 510 Introduction to Educational Research or equivalent (3 credits)

**Rationale and Justification**

This proposed graduate certificate is intended to meet the increasing demand in Maine for literacy coaches to provide job-related professional development at the school and district levels. The target audience is the MPCL coaches; currently, there are 41 building-based coaches housed within 49 schools and 18 school districts across the state (Hogate, 2023). Leveraging the MPCL school improvement model, coaches will be better prepared to lead school reform initiatives that will increase student achievement.

Researchers agree that “Effective professional development (PD) is key to teachers learning and refining the pedagogies required to teach” (Darling-Hammond, Hyler, and Gardner, 2017). As a result of this graduate certificate, MPCL coaches will bring qualitative and quantitative research skills to the school improvement process.

Since all of the courses included in the Graduate Certificate in MPCL Coaching already exist, no additional curricular developments or revisions are needed, and no additional resources will be required.

**Planned Schedule for Concentration in Literacy Education**

Appendix A provides a sample study plan. The scheduling for the courses to be offered in the Graduate Certificate will be as follows:

Semester	Year	Course Number	Course Title
Fall	2024	EEL 580	Theoretical Perspectives in MPCL Coaching I
		EEL 582	Clinical Practices in MPCL Coaching I
Spring	2025	EEL 581	Theoretical Perspectives in MPCL Coaching II
		EEL 583	Clinical Practices in MPCL Coaching II

<sup>1</sup> EEL 580/581, and EEL 582/583 are paired courses needed to complete MPCL coach training.

Fall	2025	EHD 510	Introduction to Educational Research or equivalent
Spring	2026	EEL 531	Reflective Practice

**Admission Criteria and Eligibility**

Requirements include a bachelor’s degree in education from an accredited university and one letter of recommendation to participate in the graduate certificate program. One grade of a "C" may be earned towards completion of this certificate. All other grades must be a "B" or above. No standardized test scores are required to enroll in this program.

**Program Faculty**

The School of Learning and Teaching is fortunate to have several faculty members with expertise and experience relevant to the Graduate Certificate in the MPCL Coaching program. Those who will be most involved in the program include:

- Dr. William (Dee) Nichols, Coordinator
- Dr. Debra Lewis Hogate (Literacy Outreach Collaborative)
- Dr. Craig Mason (Program Evaluation)

**Reference**

Darling-Hammond, L., Hyster, M. E., Gardner, M. (2017). *Effective Teacher Professional Development*. Palo Alto, CA: Learning Policy Institute. <https://doi.org/10.54300/122.311>.

Hogate, D. L (2023). *Annual Report for the University Training Center for Reading Recovery and Comprehensive Literacy, Executive Summary 2022-23*. Internal document University of Maine.

<sup>1</sup>EEL 580/581, and EEL 582/583 are paired courses needed to complete MPCL coach training.

**APPENDIX A**  
**SAMPLE PLAN OF STUDY**

<b>Graduate Certificate in Maine Partnerships in Comprehensive Literacy Coaching Plan of Study</b>						
<b>Student Name:</b>				<b>Advisor:</b>		
<b>Student ID Number:</b>						
	<b>Course</b>	<b>Title</b>	<b>Credits</b>	<b>Planned Semester</b>	<b>Actual Semester</b>	<b>Grade</b>
Complete all of the following :	EEL 580	Theoretical Perspectives in MPCL Coaching I	3			
	EEL 581	Theoretical Perspectives in MPCL Coaching II	3			
	EEL 582	Clinical Practices in MPCL Coaching I	2			
	EEL 583	Clinical Practices in MPCL Coaching II	1			
	EEL 585	Reflective Practice	3			
	EHD 510	Introduction to Educational Research or equivalent	3			
	<b>TOTAL PROGRAM CREDITS</b>		<b>15</b>			

<sup>1</sup>EEL 580/581, and EEL 582/583 are paired courses needed to complete MPCL coach training.

### College of Education and Human Development Graduate Certificate Proposal Routing Slip

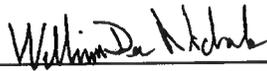
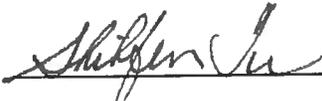
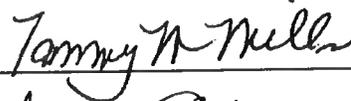
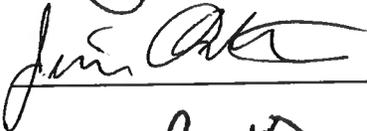
From: **School of Learning and Teaching - Literacy, Language and Culture Program**

**College of Education and Human Development**

Item: **New Graduate Certificate in Comprehensive Literacy Coaching**

*Below are the endorsements to accept this new graduate certificate.*

\*\*\*\*\*

Signature	Date	
 _____	<u>1/26/2024</u>	William Dee Nichols, Program Coordinator Literacy, Language and Culture
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 _____	<u>3/24/2024</u>	Penny Bishop, Dean of COEHD
_____	_____	Kody Varahramyan, Vice President for Research and Dean of the Graduate School
_____	_____	John Volin, Executive Vice President for Academic Affairs and Provost