THE UNIVERSITY OF MAINE Graduate School

Graduate Board
Thursday, March 27, 2025
57 Stodder Hall

12:30-2:00 pm

AGENDA

1. Approval of the February 27, 2025 Graduate Board minutes

2. March 2025 Graduate Curriculum Committee reports

3. Announcements/updates
   - Trustee, Thurgood and AP Scholarships
   - Graduate Commencement update
   - Graduate Student Workers' Union update

4. Assessment of graduate programs – Laura Millay and Ryan Weatherbee

5. Discussion of funding for new and continuing graduate students

6. New academic program proposals
   - Proposal for individualized concentration in Eng.D. program (redux)

7. Use of AI in graduate programs – continued discussion

8. Items arising

Graduate Board
Thursday, February 27, 2025
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AGENDA

Meeting called to order 12:35 p.m.

Attendance

In Person: C. Beitl G. Cox, J. Crittenden, S. Delcourt, D. Dryer, M. Gardner, D. Granke, A Gray, M. McLaughlin, N. Micinski, F. Rondeau, L. Ross, D. Sandweiss, R. Schattman, T. Schwartz, P. Stechlinski, K. Varahramyan,

Zoom: E. Allan, T. Bowden, M. Brichacek, M.Camire, J. Dimmel, K. Evans, M. Gardner, J. Gill, G. Goins, A. Goupee, A. Gray, V. Herbert, S. Hess, E. Kimball, P. Libby, R. MacAulay, S. Marzilli, G. Miles, S. Morano, W.D. Nichols, S. Nittel, E. Pandiscio, J. Riccardi, L. Rickard, R. Roberts, J. Settele, F. Rondeau, G. Schwieterman, S. Wright, T. Yoo, Y. Zhu

Guests: Karyn Soltis-Habeck, Director of Graduate Student Recruitment; Lisa Hastings, DLL; Julie Roach, DLL; Tiffany Peterson, DLL; Seth Ordway, DLL; Lindsay McMorrow, DLL; Saul Allen, Associate Director, ORD; Melanie Spencer, Proposal Development Associate, ORD

1. Approval of December 19, 2024 minutes
   - Dan Sandweiss – motion to approve
   - Tom Schwartz 2nd

   Unanimous approval

2. January and February 2025 Graduate Curriculum Committee reports

   The Curriculum Committee met on both January 21, 2025 and February 4, 2025, and is recommending the following courses to the Graduate Board for approval at its February 27th meeting.

January 21, 2025 meeting:

New Courses:
ECE 528 Smart Grid and Enabling Technologies
ECE 563 Energy Harvesting and Sensing
ECE 579 Advanced Cybersecurity
EDT 573 Introduction to Web and Dynamic App Development for Educators

Modifications:
FSN 540 Advanced Clinical Topics
MAT 699 Graduate Thesis/Research

February 4, 2025 meeting:

New Courses:
ECO 526 Regional Economics: Policy and Practice

Modifications:
MBA 695 MBA Internship
NUR 520 Family Nurse Practitioner Management of Neonate to Adolescent

Motion to approve – Dan Sandweiss
Shawn Fraver – 2nd
Unanimous Approval

3. Announcements/updates
    - Waldron and Chase award recipients

<u>Janet Waldron Doctoral Research Fellowship</u>

Amir Baharvand - Mechanical Engineering

Kallol Barai - Plant Science, nominated by SBE

Jordan Miner - Biomedical Engineering

(First alternate) Amelia Sullivan - Food & Nutrition Science

(Second alternate) Maile Sapp - Psychology (Clinical)

<u>Chase Distinguished Research Assistantship</u>

Eleanor Schuttenberg - Psychology (Clinical)

Devin Franklin - Education

Harrison Goldspiel - Ecology & Environmental Science, nominated by WFCB

Nichole Blackmer - Aquaculture & Aquatic Resources

Savannah Clark - History

(First alternate) Allie Conner - Microbiology

- Trustee, Thurgood and AP Scholarships under committee review
    i. Executive Committee will meet soon to make decisions. Nomination deadline was earlier this month.
    ii. Shared TA's are forwarded to the teaching departments first – and then finalists are chosen by the Executive Committee.
- Graduate Student Workers' Union update
    i. Laura Rickard and Scott Delcourt have been part of the UMS bargaining team, and are taking a break from bargaining to attend the Grad Board meeting.
    ii. International graduate student rights have been in recent discussion
        1. Graduate workers union is asking that there be no changes in any administrative office that supports international students.
        2. A counter proposal was planned to be released today
        3. There is a lot of distress amongst international students regarding all of the Federal changes happening.
    iii. Stipend levels – proposal of $32,500 and full health insurance throughout all of the UM system schools. Most UMS schools are not close to UMaine stipend levels.
    iv. Other economic proposals for child care, housing, relocation allowance ($3000), retirement programs, etc. UMS team will be drafting one single economic counter-proposal.
- Graduate Commencement update
    i. Cross Insurance Center - Saturday, May 10th – student and faculty arrival 4:30pm, ceremony begins at 6:00pm.
    ii. Faculty Regalia & Participation –complete before March 14th
        1. Current Participation #'s for Grad:
            a. Faculty = 96
            b. Students = 510 total currently indicated participation
    iii. Student Regalia dates – March 26 Grad Fair at the Bookstore
        1. Doctoral students who want to purchase custom regalia - 2/28.
        2. Doctoral students who want to rent regalia - 3/28.
    iv. Outstanding Student Nominations – complete before March 28th
        a. Currently = 7 nominations
    v. Call for volunteers will go out soon – waiting for confirmation on volunteer training and luncheon.

vi. Scott Delcourt added that given the rising number of participating graduates, we are going to try to line the students up by degree type (MA, MS, MBA, etc) in order to shorten the introduction of individual students.
    1. Laura Rickard suggested that cutting out that extra photo on stage last year was helpful.
    2. Commencement Speaker – Dr. Graham Carr – a PhD graduate of UMaine (in History) & current President of Concordia University.

4. Update on Presidential executive orders and impact on UMaine sponsored activity – Vice President and Dean Varahramyan
    - Things are changing rapidly – especially since our December 19th meeting.
    - The University has created different working committees to monitor events regularly.
    - Chris Boyington (ORA) coordinates the Grant Review Task Force.
    - There are a few individual grants where funding has been impacting graduate student funding.
    - Within the University of Maine, we have our own group coming together along with other stakeholders, including the Faculty Senate – meeting weekly and sometimes daily as needed.
    - We have some colleagues here from the office of research development (Saul Allen and Melanie Spencer)
    - Our colleagues working with ARCSIM and the University fiscal office to determine impact of new regulations.
    - We need to combine efforts as rapidly as possible – and pursue alternative sources of funding (in addition to the federal funding which is in question)
    - What are sources we could use for emergency funds? (UMaine Foundation may be able to help via donors, ORD and departments working together may be able to identify other private sources of funds.)
    - 3 faculty members have approached VP and Dean Varahramyan and volunteered to help write appeals for funding – and he welcomes more to join the effort.
    - Melanie Spencer & Saul Allen – attended the meeting and offered to help appeal for private donor funds – offered to help quickly package different ideas. We would like to pool efforts and do some collective work (rather than have alot of individuals outreach to the same entities). Please contact Melanie and Saul if you have ideas and would like to participate in the effort to secure private funding.
    - This afternoon or evening we will be meeting again to discuss possible proposals to assist with this effort.
        i. Questions:
            1. Cici – the UM Foundation is weak compared to other institutions of our size. Are there efforts to bolster those

efforts in some way. Individuals are great and are trying their best.

a. They are not optimally set at this point
b. Going after scholarships for students, etc…
c. We have made quite a bit of progress with them – we are trying to raise awareness of the research enterprise. We have a fraction of a person who is supposed to be working on research and graduate education funding.
    i. VPR suggested that we are in need of fellowships from private entities
    ii. Endowed chairs should be pursued
    iii. Distinguished Professorships should be pursued

Cici - How can we help?

Reach out to the VPR to express interest

ii. Nick Micinski – I am part of a group of LGBTQ+ faculty. What is the University planning to do with regard to protecting this group?

1. Jacquelyn Gill supported Nick's question and thanked him for asking. (Mary Ellen Camire, Laura Rickard, and Gail Schwieterman also expressed support.)
    a. VP Varahramyan stated that we want to be a law abiding institution – but, we have not abandoned our values. How to pursue those values without creating a situation where our efforts are misunderstood?
    b. VP Varahramyan stated that last Friday, after the state of Maine came into the spotlight, we are working with our colleagues in the university legal office to determine impact and the best way to move forward.

Nick asked a follow-up question – in whether entities involving DEI and LGBTQ+ would be asked to change their names – and if so, would faculty be a part of these decisions?

Rachel Schattman asked if a statement could be made on behalf of the university to help ease the existence of hearsay, etc… Faculty is asking for more communication.

The President has announced the State of the University address on March 6th. She is planning to address some of these concerns.

Meghan Gardner stated that it would be important for the University to state values and discuss it with faculty and staff.

VPR – personal statement – I am personally in support of LGBTQ+ , but there may have been in a better course of action than what happened at the Governors' Luncheon. What is the wise thing to do without compromising your values?

Jacquelyn Gill – existing democratic process concerns – yesterday the request that came so quickly regarding DEI changes in the Faculty Senate – and there was not time given for Senate to meet and discuss. Change the ways in which we leverage existing governing bodies.

VPR suggested that Jacquelyn should bring her concerns to Faculty Senate.

Tim Bowden – chair of the DEI committee as part of the Faculty Senate. They have not been asked to eliminate the DEI committee – but were placed under the university environment committee. Faculty are pushing for the administration to make some sort of supportive statement. Faculty Senate is trying to find a way to navigate this.

Dee Nichols – stated that the Faculty Senate meeting yesterday was one of the hardest I have attended. There are alot of concerned folks. Before all of the recent federal activity, we had originally asked to add an administrative position in the Provost's office to support DEI.

Jacquelyn Gill – restated the point that Dee brought up – these decision affect people. – Faculty Senate did not communicate the decisions – and we had to hear it through the grapevine. I would like for us to be more proactive and less reactive. In the absence of a statement of our values, I cannot assume that they exist.

Laura Rickard - This is following empirical research in risk/crisis communication btw. To me, this is COVID-19 messaging 2.0. - reactive, not proactive.

Dee Nichols will relay the concerns back to Amanda (Faculty Senate President). I do want to reassure you that we are committed to supporting DEI – we are just concerned about having it present in our bylaws at the moment.

VPR had to leave for another meeting

Scott Delcourt noted that there are also discussions regarding PhD admissions/funding. As of right now, the Graduate School has not been asked to suspend PhD admissions. However, other schools are pausing admissions, and some are rescinding financial offers.

Shawn Fraver asked about funding relating to USDA.

Cici – asked about admitting international students – should we anticipate longer wait times for visa, more difficulties, etc…?

Debbi Clements – can get letters to students within a 48 hour turnaround time if departments can get her the needed information to try to help the situation as much as possible. They were delays in some countries last year, so the wait times could get even longer. Programs are advised to put language in their offer letters requiring students to have obtained a visa by a specific date.

Jacquelyn Gill – met with the VPR regarding collecting information to state the importance of the university to the state and beyond. We are getting support from the VPR to push this upwards.

Scott suggested that the Grad School could put together a google form to help collect the information on student research stories.

Richard Roberts asked could link to or extend to online and/or adult learners which might be a unique addition to this idea. Online students are less likely to seek funding, but also have fewer opportunities for it.

Scott noted that many continuing students are also concerned about their funding.

5. New academic program proposals
    - Proposal for individualized concentration in Eng.D. program
        i. Needs some editing – Dan Sandweiss has some suggested amendments.
        ii. John Allen was late joining the meeting as he didn't have the correct Zoom link, so we will postpone this discussion until the next GB meeting.

    - Proposed 4+1 track in Engineering Technology
        i. Students able to use 9 credits from UG to count toward graduate degree.
        ii. Dan Sandweiss asked if the policy is still 3.75 GPA – Meghan Gardner suggested that it has been moved to 3.25 or 3.0 GPA
            1. Dan suggested that he would object to the 3.0 standard as we would be looking for students who excel in their undergraduate programs.
            2. Scott will add this to the Executive Committee agenda to discuss if we want to move it up from the current 3.0 listed in Policies and Regulations. He noted that the Grad Board did choose to lower the GPA stated in the original 4+1 policy because the most elite students were seeking PhD programs.
            3. Mary Ellen Camire stated in the chat that "In programs like food science, the GPA is hit by organic chemistry and other tough classes in the first two years of a BS."

            All in favor of moving this forward – no objections

    - Proposed 4+1 track in Business Administration – Meghan Gardner
        i. We want to offer the same opportunity to UMaine students as other system schools. It is modeled after all of the other approved 4+1 tracks that are currently offered to UM System schools.
        ii. In Junior Year – by Feb 1 – undergrad student must submit an application to the 4+1 track (submitted to MBS) and the MBS team would notify the Graduate School of their admission to the 4+1.
            1. It gives students the ability to double count up to 9 credits and to take 3 graduate classes at the undergraduate cost per credit.
            2. Patty Libby asked: When the graduate portion is being done online (if they are taking courses online in junior and senior year – the student would be paying their tuition based on their tuition rate – not the e-rate?
            3. Meghan Gardner suggested that this is how it works. (e-rate doesn't apply to undergrads – so their residency classification would continue.)

All in favor of moving this forward – no objections

6. Use of AI in graduate programs – continued discussion (moved to the next meeting due to time constraints).

7. Items arising: Dee Nichols asked about an inquiry he received about EHD548. Scott suggested that it may be for the next Curriculum Committee meeting. (Who will come to CC to present? Dee Nichols will come to present.)

Meeting Adjourned 2:02 p.m.

CURRICULUM COMMITTEE REPORT

The Curriculum Committee met on March 4th, 2025 and is recommending the following courses to the Graduate Board for approval at its March 27th meeting.

New Courses:

AVS 530 Animal Genetics and Selection

FSN 546 Public Health Nutrition

FSN 547 Food and Bioprocess Technology

LMS 518 Curriculum in Library Environments

Graduate Program Assessment

Update from the Office of Institutional Research and Assessment (OIRA)
Ryan Weatherbee (Assistant Director for Assessment)
Heather Pixley (Assessment and Evaluation Specialist)
Deb Allen (Assistant Provost for Institutional Research and Assessment)

Graduate programs in MCEC, MBS, and COEHD submit their first 3-year reflection report by June 30, 2025. We have been in contact with, and offered support to, these programs in the fall and will be reaching out in the next few weeks with reminders and to offer additional support.

All other programs (ELH, LAS, and Interdisciplinary program) submit data from this academic year by October 2025.

Status Update

We are currently in the process of providing feedback to the CLAS and interdisciplinary graduate programs that provided 3-year reports last spring. The feedback process involves an OIRA staff review of the reports followed by a review by the Assessment Advisory Board, which includes representatives from each college. Once the feedback is complete, it is provided to the programs along with an offer to meet to discuss the feedback.

We received 3-year reports (or portions of 3-year reports) from 11 CLAS graduate programs, 4 received deferrals, and another 7 completed some portions of the assessment process. Overall, 22 of the 25 programs engaged in some way with the assessment process. We received reports from 5 interdisciplinary graduate programs, with another 5 engaging with some part of the assessment process. Overall, 10 of 11 programs engaged with the assessment process.

Last fall, OIRA offered opportunities for all graduate coordinators in COEHD, MCEC, CLAS, and ELH to participate in roundtable discussions about graduate assessment. Our office also contributed to a system-wide workshop focused on interpreting assessment results with applications for both graduate and undergraduate program assessment; all faculty and staff system-wide were invited to participate. We also offered a workshop focused on establishing validity and reliability in program assessment; the workshop was recorded and can be found on our website, along with a number of other workshops that could be valuable for faculty or staff supporting graduate program assessment.

This spring, in addition to providing feedback to programs from the last reporting cycle, we will focus on outreach to the programs with an upcoming 3-year reporting deadline. After an extended staffing gap, we have a new staff person coming on board to fill Mandy Barrington's position (which she left last spring). One of their responsibilities will be to support graduate program assessment. Our graduate assistant, Kaitlyn Groh, is also providing support and will be helping with outreach to programs.

Resources

The graduate assessment section of the OIRA/Assessment website is your one-stop-shop for everything related to graduate assessment:
https://umaine.edu/oira/assessment/graduate-assessment/

Details about the various steps of the onboarding process, including links to program-specific reporting documents can be found in the expectations document (also available on the graduate assessment website):
Graduate Program Assessment General Expectations - 2022-23

Next Steps

If you coordinate an MCEC, MBS, or COEHD graduate program and have any questions about the reports due June 30, 2024, please reach out to set up a meeting.

For all other programs, we will be offering annual data reporting info sessions in September for the annual data reports due by October 31, 2024.

The first three-year reports for programs are due as follows:
CLAS (including MCEC - computing) and Interdisciplinary Programs - June 30, 2024
MCEC (engineering), MBS, and COEHD - June 30, 2025
ELH - June 30, 2027[1]

Additional Information on the Report Feedback Process

OIRA has provided feedback to 12 of the 16 programs that submitted 3-year reports last year. Feedback for the other 4 programs will be finalized and sent by the end of March.

Providing feedback to programs is a 3-step process. Step 1 is an initial review by OIRA staff. Step 2 is a full review and development of finalized feedback by the Assessment Advisory Board (AAB), a group that includes faculty representatives from across colleges, associate deans, and (as of fall 2024) graduate student representatives. Step 3 is for OIRA to provide the

[1] After this year (2025), there will be a 1-year shift in the report timing to allow programs a full year to reflect on results from the previous 3 years.

feedback to programs with an offer to meet for discussion. The rubric linked here is used to evaluate the 3-year reports and to provide feedback. A sample timeline for AAB feedback is below, but due to the volume of reports (including for both undergraduate and graduate programs) staff reviews now extend beyond the summer and AAB reviews extend (as they have this year) into the spring.

Online Graduate Degree

Doctor of Engineering (Eng.D.)

in

Engineering Technology (E.T.)

Concentration: Individualized

The University of Maine

December 5, 2024

https://online.umaine.edu/online-doctor-in-engineering-technology/

Table of Contents

I. General Objectives

The Doctor of Engineering (abbreviated Eng.D. for the remainder of this document) in Engineering Technology program meets four objectives: 1) Provide a practice focused doctoral program, 2) Allow doctorate studies entirely on-line by part-time students, 3) Provide opportunities for advanced studies and research in engineering technology, and 4) Provide doctoral degree status for individuals pursuing positions, promotions, and personal achievement.

II. Definitions

As used in this document, abbreviations, words, and phrases have the following meaning:

Advisor – Also known as the Major Advisor. Usually, a School of Engineering Technology (SET) graduate faculty member with a doctorate serves as the primary advisor to the Eng.D. student.

Committee – The doctoral student's program committee is responsible for developing (approving?) a course of study and research leading to a dissertation to assure high and notable attainment of scholarly activity.[1] Five or more individuals, chosen by the doctoral student in consultation with their Advisor, form an academic group responsible for reviewing, advising, counseling, and approving doctoral student academic submissions. The committee oversees the student's program of study, exams, and dissertation. The Committee certifies completion of Doctoral studies.

Comprehensive Exam – Also known as a preliminary exam or 'comps.' A comprehensive exam typically tests knowledge of engineering technology related subject matter. The exam is used to determine a student's eligibility to continue their course of study. The exam ensures the student is familiar enough with an area of research to make original contributions.

Eng.D. – The abbreviation stands for Doctorate in Engineering. In this document the abbreviation refers to the Doctorate in Engineering in Engineering Technology. The doctoral degree is given primarily for high attainment in engineering technology scholarship and for demonstrated ability for independent research in engineering technology, not merely for courses completed or time spent in study.[2]

Dissertation – The term refers to one or more manuscripts comprising a record of the student's studies, research, analysis, and results as part of their Eng.D. program of study and has met the criteria set forth in this document and those of the University of Maine graduate school.

Graduate Faculty – A faculty member that has met graduate school criteria and been approved to be on the University of Maine graduate faculty.[3]

Graduate Policies – Refers to the Graduate School Policies and Regulations.[4]

Manuscript – A document meeting the criteria for publication and intending to be submitted for publication according to the criteria set forth in this document.

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[1] Graduate School Policies and Regulations § 1.1
[2] Graduate School Policies and Regulations § 1.1
[3] https://umaine.edu/graduate/facultystaff-resources/graduate-faculty-membership/
[4] https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/#course-credit

Publication – A manuscript that has been published according to the criteria set forth in this document.

Qualifying Exam – Also known as a final exam or oral examination. The oral exam tests the student's knowledge of the research topic they have chosen in their program of study. Oral exams are used in part to reduce (although not eliminate) the risk of granting a degree to a student who has had their research or dissertation ghostwritten by an expert. The oral exam is also used to determine if a dissertation was written by artificial intelligence.

III. Introduction

3.1 Student Focus - The Eng.D. is designed for professionals looking for advanced studies to become an expert in their respective fields (a target cohort would be engineers with professional licensure and a post-baccalaureate degree).

3.2 Classification of Program - Doctorate programs generally fall into one of two categories: 1) academic (research-oriented) and applied (practicum-based). The University of Maine's Eng.D. degree is a combination of the two philosophies. Students perform advanced studies and research to become an expert in that field (through applied and experiential learning) leading to success in either an academic or professional career requiring particular expertise.

3.2 Pedagogy - The rigors of a full-time resident doctoral degree program are generally not possible for many working professionals that desire an advanced degree.[5] This degree program can be completed 100% online with part-time studies.[6]

[5] See e.g., https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 4.1
[6] However, continuous enrollment is required. See https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 3.8.3

IV. Program Studies Criteria

Each student pursuing an Eng.D. in engineering technology must meet the following criteria to be awarded an Eng.D. degree.

4.1 Graduate School Policies – Students must comply with University of Maine graduate policies such as the standard residence (time spent in doctoral study) requirements,[7] course credit transfer limits, and minimum limit of University of Maine credits.

4.2 Advisor[8] - The student must have an Advisor. The Advisor is typically selected in the advance of or soon after enrollment. The Advisor has a critical role in the student's studies. The Advisor is: 1) responsible for helping the student prepare a program of study, 2) advises the student of the composition of the Committee, 3) overseeing the manuscript prepared by the student, and 4) providing a resource and counsel to the student.

The Advisor must be a member of the SET graduate faculty with a doctorate.

A co-Advisor is allowed. The co-Advisor does not have to be an SET graduate faculty member but must be a graduate faculty at the University of Maine with a terminal degree (e.g., J.D., Ph.D., Ed.D., etc.)

4.3 Committee[9] – Each and every Eng.D. student will have a Committee. Committee members are expected to review and approve the student's coursework (program of study), provide advice, regularly assess the student's progress and accomplishments, and administer the comprehensive and qualifying examinations for the Eng.D.

The creation and approval of the committee is one of the first steps of the student's studies.

The Committee will be composed of at least five members (including the Advisor)

At least two of the committee members will be SET graduate faculty with a doctorate. One member may be a University of Maine graduate faculty external to the University of Maine. An external faculty is recommended but not required.

A change to the Committee must be approved by all remaining committee members and the SET Graduate Coordinator and then forwarded to the Graduate School.

The purpose of the committee is to: 1) Approve and oversee a program of study. 2) Ensure adherence to University of Maine graduate policies and

[7] https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 4.1.2
[8] https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 8.2
[9] https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ §§ 8.2, 8.2.1

SET Eng.D. policies. 3) Administer appropriate examinations.[10] 4) Approval of manuscripts.

4.4 Program of Study[11] – A program of study is prepared by the student with counsel from the Advisor.[12] The program of study is composed of courses accepted and courses to be taken along with areas of research. The program of study is submitted to the Committee and must be approved by the Committee. The program of study is submitted to the School of Engineering Technology (SET) Graduate Coordinator for approval and conveyance to the Graduate School.

Changes to the program of study follow the same process as approval of the program of study submission.

4.5 Credits Required – Each student must complete a minimum of 42 credits of graduate course credits beyond the baccalaureate degree.

The 42 credits include a minimum of 30 graduate course credits as approved by the graduate committee[13] and a minimum of 12 SET thesis credits. Fifty percent of graduate course credits may be transferred from another education institution provided the courses meet the policies of the graduate school and are approved by the Advisor and Committee.[14]

Only credits earned at the post-baccalaureate level may be applied to the 42-credit minimum.

Only credits with a B or better grade will apply.[15]

The graduate course credits cannot exceed 6 credits of courses numbered 400-499 (or equivalent numbering at another academic institution).

Approval by the Advisor and Committee of the proposed minimum of 42 credits must be completed in the first year of the Eng.D. studies.[16]

The one credit course INT 601 – Responsible Conduct of Research (RCR), must be taken to satisfy the graduate school RCR requirements. The course may be substituted for one thesis credit.[17]

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[10] The final examining committee is not the same as the Committee. https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 9.2.2

[11] https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 8

[12] Use the form designated by the Graduate School. https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 8.1

[13] A typical 30 credits are defined in the Master of Science Engineering Technology detailed at https://online.umaine.edu/online-master-of-science-in-engineering-technology/or in the Professional Science Masters in Engineering and Business detailed at https://online.umaine.edu/grad/professional-science-masters-in-engineering-and-business/.

[14] https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 4.5.2

[15] https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 13.1.1

[16] Modifications are possible during the student's studies.

[17] https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 4.7

4.6 Progress Reports - The Committee will be kept informed by the student of progress through committee meetings, individual student meetings with a committee member, or by written reports from the student.

An annual, written, progress report must be provided to the Committee by the student annually.[18] Reports shall be made on a form approved by the graduate program.[19]

The progress reports to the Committee will detail progress and achievements. Plans for future progress should be included in the report. The Advisor is required to respond to the student and committee members regarding the report. Any remedial action will contain a date by which the remedial action must be completed. Summary reports are generally one page.

4.7 Comprehensive Examination[20] – The comprehensive exam is a required examination. The exam may only be taken after the student has completed 1.5 years beyond the bachelor's degree.[21] The exam will meet the requirements set forth in the University of Maine Graduate School policy along with requirements for the Eng.D. set forth in this document.

The exam is administered by the Committee.

The exam is generally oral but may be written or a combination of written and oral. The student will be tested on graduate coursework and the ability to publish in peer-reviewed scholarly publications. In addition, the student must present a manuscript or other Committee approved document to assess success at publication. The purpose is to evaluate quality, determine deficiencies, and possibly determine whether the student should continue.

The exam is undertaken when the student has completed or is nearing completion of required coursework (not counting the thesis credits).

SET requires a minimum of 6 months between the Comprehensive exam and Qualifying exam. A maximum of one negative vote is permitted on a Comprehensive exam.

If the Comprehensive exam is deemed unsatisfactory, 15 weeks (1 semester) must lapse until the exam is re-administered. The Comprehensive exam cannot be attempted more than twice.

An additional component of the comprehensive exam will be a written document defining an outline of the dissertation which will be approved by

[18] Students may submit written reports before annual anniversaries.
[19] https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 13.1.2
[20] https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 9.2.1
[21] https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 9.2.1

the Committee. The required peer-reviewed publications will be required as part of the dissertation outline. The publications cannot be accepted or published prior to the person being accepted into the doctorate program. Submission of a paper can be done prior to being accepted into the doctorate program only if the Committee accepts it. Co-authors are allowed but the doctoral candidate should be the primary author in all publications.

4.8 Dissertation – The Eng.D. student publishes peer-reviewed manuscripts which will serve as the main body of the dissertation. The dissertation should be composed of one or more contributions to the literature in the profession of engineering technology. The style, organization, and standards of the components of the dissertation must meet the criteria for publications in peer-reviewed journals in the engineering technology profession or professional endeavors related to engineering technology (See Appendix D) and policies of the graduate school.[22]

A dissertation is generally the completion of the following process: 1) Topic identification in consultation with Advisor. 2) Topics forwarded and approved by Committee. 3) Manuscript(s) prepared. 4) Manuscript(s) provided to the Advisor for advice, review, and critique. 4) Upon approval of the Advisor, manuscript(s) are sent to the Committee for review, approval and critique. 5) Manuscript(s) are revised and resubmitted to Committee until approved. 6) Publication of manuscript(s). 7) A dissertation meeting the University of Maine graduate school policies is prepared from publication(s). 8) The dissertation is forwarded to the graduate school for review and critique. 9) The dissertation is revised and submitted until approved by graduate school.

One of the following is required to meet the dissertation criteria:

- At least three manuscripts published in peer-reviewed journals[23] converted into a dissertation as defined in University of Maine Graduate School Guidelines Policies and Regulations.[24]
- At least three manuscripts published in peer reviewed conference journals[25] converted into a dissertation as defined in University of Maine Graduate School Guidelines Policies and Regulations
- A traditional dissertation compiling research results.
- A comprehensive published book reviewed by a state professional society and intended to be used as a reference for practice converted into a dissertation as defined in University of Maine Graduate School Guidelines Policies and Regulations.
- Another form of publication approved by the Advisor and Committee.

[22] https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 10.1.6
[23] The Advisor will assist students in locating the appropriate journals to publish.
[24] Under 10.1.6 Guidelines for Using Publications(s)
[25] Students can count both peer reviewed publications and conference journals in their count.

Any manuscript intended to meet all or part of the criteria of the dissertation must be approved by the Advisor and Committee prior to submission and publication. Under no circumstances will a manuscript accepted or published prior to acceptance into the doctorate program be allowed.

Those publications composing the student's dissertation are submitted to the Committee. The dissertation document needs to meet the rules and policies specified by the Graduate School.

The Committee has two weeks to submit concerns, suggested changes, etc. after the draft dissertation has been submitted to the Committee.

4.9 Qualifying Examination - An Eng.D. student must take a qualifying examination. The qualifying exam is administered according to the policies of the graduate school.[26]

The qualifying examination cannot be scheduled until the dissertation has been approved by the major advisor.

A draft of the dissertation document must be submitted to the Committee no less than four weeks before requesting the qualifying examination.

A draft must be submitted to the graduate school no less than 24 hours prior to the defense. [27]

At the qualifying examination, the student will present a review of the work and be prepared to defend the dissertation based upon questions from the Committee.

A unanimous approval of the Committee is required or the qualifying examination will be rescheduled.

[26] The final exam may be administered by an exam committee appointed by the graduate school. https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 9.2.2
[27] https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 4.1.2

V. Timing and Degree Steps

Note: The graduate school has forms to be used at many of the steps noted.

Prior to studies

Step 1: Apply for and be accepted into the Eng.D. program
Step 2: Choose an Advisor
Step 3: Download and read graduate school policy and the graduate student handbook
Step 4: Download graduate school forms and become familiar with them

First Semester

Step 5: In consultation with the Advisor, select members of the Committee

Prior to Completion of the Second Semester

Step 6: With advice and consent of the Advisor, prepare a program of study to submit to and receive approval from the Committee[28]

Prior to Completion of the First Year of Studies

Step 7: Annual written report to the Committee on progress
Step 8: A program of study approved by the Committee

Upon substantial completion of required coursework

Step 9: Present a potential manuscript(s) for publication, a research proposal, a professional report, or other Committee approved manuscript used to assess success at peer-reviewed publication to the Advisor
Step 10: Approval of the Advisor of the manuscript
Step 11: An outline of the dissertation and approval by the Committee
Step 12: Complete and pass a comprehensive exam

No less than six months from the comprehensive exam

Step 13: Eng.D. dissertation draft (i.e., using publications as dissertation) submitted to the Advisor

Upon approval by the Advisor of dissertation draft

Step 14: Completion of a minimum of 42 credits before the qualifying defense
Step 15: Submission of draft dissertation to the Committee

Within two weeks of submission of draft dissertation to the Committee

Step 16: Committee must submit concerns, suggested changes, etc. to the Eng.D. student

No less than four weeks from the submission of the dissertation to the Committee

Step 17: Schedule a qualifying exam (defense of dissertation based on questions from the Committee)
Step 18: Notify the graduate school prior to the examination
Step 19: Qualifying exam administered
Step 20: Unanimous approval of the exam committee or qualifying exam rescheduled

[28] Use appropriate graduate school form

Less than four years from the start of the graduate program

Step 21: Completion of the doctoral program on graduate school form [29]

[29] https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 4.3.2, 13.2

VI. Conflicting Policies

In the event of conflict between this document and the graduate school rules and policies, the graduate school rules and policies shall govern.

Appendix A

Graduate Courses Available at the University of Maine

Current SET and related graduate courses[30] include (but are not limited to):

- ENM 586: Advanced Project Management (3 credits)
- GEE 694: Graduate Engineering Internship and Experiential Learning (6 credits)
- CET 412: Sustainable Building Design and Construction (3 credits)
- EET 405: Fundamentals of Engineering: Electrical and Computer (3 credits)
- EET 422: Power Systems Analysis (3 credits)
- EET 423: Protective Relay Applications (3 credits)
- EET 486: Project Management (3 credits)
- EET 514: Printed Circuit Board Design (3 credits)
- EET 515: Automation and Integration (3 credits)
- EET 560: Renewable Energy and Electricity Production (3 credits)
- EET 584: Engineering Economics (3 credits)
- GIS 400: Geographic Information Systems II (4 credits)
- GIS 420: Remote Sensing and Image Analysis (4 credits)
- MET 440: Lean Six Sigma (3 credits)
- MET 475: Fuel Science and Technology (3 credits)
- SIE 509: Principles of Geographic Information Systems (3 credits)
- SVT 501: Advanced Adjustment Computations (3 credits)
- SVT 511: Geodetic U.S. Public Land Survey Computations (3 credits)
- SVT 512: Survey Business Law and Policy (3 credits)
- SVT 513: Advanced Studies in Boundary Law (3 credits)
- SVT 531: Advanced Digital Photogrammetry (3 credits)
- SVT 532: Survey Strategies in Use of Lidar (3 credits)
- SVT 437: Practical GPS (3 credits)
- SVT 541: Geodesy (3 credits)
- SVT 542: Applied Hydrographic Surveying (3 credits)
- SVT 475: Small Business Management (3 credits)
- INT 601: Responsible Conduct of Research (1 credit)
  Must be taken to satisfy the Graduate School's responsible conduct of research requirements, and it may be substituted for one thesis credit.
- SVT 699: Graduate Thesis/Research

[30] The student should check with their Advisor to determine changes to this list. Other courses may be taken with faculty permission.

Appendix B
Possible Sources for Peer Reviewed Publications

Potential places to publish peer reviewed articles include but are not limited to any peer reviewed journal or conference proceeding approved by the student's advising committee.

Appendix C
SET Graduate Faculty
Major Professors
Potential Graduate Committee Members
(as of 1 September 2024)

John Allen, Doctorate, Professor of Electrical Engineering Technology, Full Graduate Faculty, School of Engineering Technology's Graduate Coordinator

Raymond Hintz, Ph.D., Professor of Surveying Engineering Technology, Full Graduate Faculty, Surveying Engineering Technology, SVT Concentration Graduate Coordinator

Carlton Brown, Ph.D., Associate Professor of Surveying Engineering Technology, Associate Graduate Faculty

Knud Hermansen, Ph.D., J.D., Emeritus Professor of Surveying Engineering Technology, Emeritus Graduate Faculty

Appendix D

Typical Format for Manuscripts

The format for a manuscript should follow what is often called "journal manuscript" or "using publications as dissertation" format. A suggested format for the "journal manuscript" component of a dissertation is:

- Abstract
- Acknowledgments
- Table of Contents
- List of Tables
- List of Figures
- Introduction
- Literature Review
- Manuscripts/Published Papers
- SET Significance or Conclusions
- Appendices

References can be listed as footnotes for each page, at the end of each section, or as a separate section just before the Appendices (endnotes).

Appendices are often important in complete documentation of the work performed. In many cases page limits on published manuscripts will limit complete documentation. Example of possible content in appendices could include

(a) Documentation not provided in manuscripts (due to page limits) or procedures and methodologies not described elsewhere.
(b) Archiving of data and data that forms the basis of presented results in the manuscripts that are not in the manuscripts.
(c) Data management plan(s).
(d) Supplemental information not in the manuscripts.

Note: Variations of manuscript format from the above suggestions should be presented to the Advisor and approved by the Committee.

Format for the dissertation must comply with graduate school requirements that ARE DIFFERENT from manuscript guidance.[31]

[31] https://umaine.edu/graduate/facultystaff-resources/policies-and-regulations/ § 10.2

Appendix E

American with Disabilities Act (ADA) Accommodations

The doctorate follows the guidelines presented at the Office of Equal Opportunity for the University of Maine at https://umaine.edu/eo/disability-access/ and more generically defined at https://www.ada.gov/. As this degree is 100% online format many potential disability issues such as building access, parking, etc. have been removed. With the graduate course content being asynchronous all lectures have closed caption ability/access.

Appendix F

Timeline