



**Graduate Board
Thursday, February 25, 2021**

[Join Zoom Meeting](#)

ID: 97954875884

Password: 323082

[\(US\) +1 312-626-6799](#)

3:00-4:30 pm

AGENDA

1. Review/approval of the December 10, 2020 Graduate Board minutes
2. Approval of the January 19 and February 9 Curriculum Committee reports
3. Announcements/updates
 - Update on Graduate School financial awards
 - Commencement update
 - Graduate enrollment update – Fiona Libby
4. New programs proposals
 - Substantive change proposal for the Master of Business Administration – Jamie Ballinger
 - Graduate Certificate in Engineering Applications of Artificial Intelligence (redux) – Mohamad Musavi and Yifeng Zhu
5. TargetX (CRM) Update – Crystal Burgess
 - RFP update
 - Email communications
6. Graduate program Learning Outcomes (PLOs) – Mandy Barrington
7. Entrepreneurial Graduate Programs
8. UMS Graduate Faculty appointments
9. Items arising



Graduate Board
Thursday, December 10, 2020
By Zoom:

[Join Zoom Meeting](#)

ID: 95717394521

Password: 493620

[\(US\) +1 312-626-6799](#)

3:00 pm

AGENDA

Meeting called to order: 3:05PM

Attendance: P. Agrawal, J. Artesani, C. Beitzl, J. Bonnet, D. Bousfield, T. Bowden, S. Butler, A. Cruz-Uribe, S. Delcourt, D. Dryer, S. Ell, S. Fraver, J. Gill, H. Greig, N. Hall, S. Jain, Z. Jin, S. Klein, D. Klimas-Zacas, A. Knightly, M. LaRocque, E. McKillen, I. Mette, S. Ohno, E. Pandiscio, P. Poirier, L. Rickard, D. Rooks-Ellis, S. Smith, C. Sponarski, J. Stoll, K. Vekasi, C. Villacorta Gonzales, V. Weaver, T. Yoo

Guests: Crystal Burgess, Mohamad Musavi, Yifeng Zhu, Zachary Ludington

- Review and approval of October 2020 and November 2020 Graduate Board minutes – D. Rooks-Ellis moved to approve, 2nd - D. Dryer.
 - Add K. Vekasi, N. Hall, and W. Gramlich to October meeting attendance
 - No opposition to approval of Oct or Nov Minutes
 - Unanimous approval for Oct and November minutes with the attendance edits listed above for the October GB meeting.

- December 1, 2020 Graduate Curriculum Committee report
New Courses:
 - EHD 546 Teacher Leadership in Schools and Communities
 - EHD 576 Interviewing Methods in Qualitative Research
 - NUR 524 Family Nurse Practitioner Management of Neonate to Adolescent – Clinical
 - SPI 577 Conflict and Violent Extremism Vulnerabilities
 - SPI 578 Development in Practice

Modifications:

- BIO 511 Insect Ecology
- ECO 504 Behavioral Economics
- EES 595 Professional Experience in Ecology & Environmental Science
- NUR 520 Family Nurse Practitioner Management of Neonate to Adolescent-Lecture

I. Mette motioned to approve & 2nd - S. Butler.

No opposition to approval

- Announcements
 - Fellowship and assistantship nominations due Dec 4.
 - Waldron, Hunter, Chase, and shared TA nominations – have been sent to the Executive Committee. Expect to have decisions in January on all but the shared TAs which as 2 nomination deadlines.
 - Asymptomatic COVID testing between semesters – after Thanksgiving testing was conducted for returning graduate students. The University anticipates doing similar testing after the December holidays.
 - Spring semester planning – tentatively still as planned – but, subject to change (may start late, etc...). The COVID testing protocol will be the same as fall -2 rounds of testing about a week apart any student living on campus in a residence hall and/or for any student travelling to Maine from out of state.
 - Revenue sharing meeting - Dec 11 (Provost, College Deans, and CBO) – entrepreneurial programs – where students would be self-supported. Tuition revenue in excess of an established enrollment baseline would be eligible for revenue sharing.
 - W. Gramlich asked for clarification about program eligibility and the percentage of revenue returned to units – S. Delcourt explained that there is still ongoing discussion about the details.
 - I. Mette asked how this impacts programs who have grown over the past several years. S. Delcourt suggested that there are several programs that this could impact – i.e. MBA growth this year. There will be a committee established to review programs applying to be considered entrepreneurial programs which will establish an equitable baseline enrollment for tuition revenue sharing.

Final review of draft revisions to Graduate School policy (2.1.1 and 2.1.2) – removal of testing requirement from the Graduate School (would be specific to the individual program if a test were to be required). Standardized testing would be removed from the requirements for the application checklist, etc...

2.1.1 Credentials Required

- a. A complete application calling for biographical and other information concerning the applicant.
- b. Three (3) letters of recommendation from persons familiar with the applicant's qualifications. These letters should be academic references, although professional references are acceptable for some professional programs.
- c. A copy of an official transcript of all previously attempted college level work.
- d. Scores from standard tests as outlined in Graduate Admissions Examinations, **if required by the program as part of the application.**

2.1.2 Graduate Admissions Examinations

2.1.2.1 Graduate Record Examination

Applicants (for admission to the Graduate School) in **some** programs **may** be required to submit the aptitude and appropriate advanced test scores on the Graduate Record Examination as part of their application, **although the Graduate School does not require standardized admission scores as a general criterion for admission.** The advanced test of the Graduate Record Examination will not be required of applicants for admission to Graduate School in those programs where no appropriate advanced test is available. This waiver of the advanced test is at the option of the faculty in these programs. Graduate Record Examination scores will not be required of students entering the **Educational Specialist programs** in Education or the Certificate of Advanced Study in Nursing. Graduate Record Examination scores will not be required of students entering the Master of Arts in Interdisciplinary Studies Program.

Motion to approve: D. Dryer, 2nd – J. McClymer, 3rd – J. Gill
No opposition to approval.

S. Delcourt noted that under the new policy, any program that still wants to require test scores may still do so – but, the Graduate School will not require it. Please let Crystal Burgess know if test scores will still be required for individual programs.

- New programs proposals
 - Substantive change proposal for MEd and EdS degrees in Curriculum, Assessment and Instruction
 - Elementary Ed & Secondary Ed degrees were formerly considered separate degrees but have merged over time under the general umbrella of Curriculum, Assessment and Instruction (CA&I).
 - The CA&I program is intended to provide advanced training for previously certified in-service K12 teachers.
 - Motion to approve – S. Butler, 2nd – J. Gill
No opposition to approval.
 - Graduate Certificate in Engineering Applications of Artificial Intelligence
 - Mohamad Musavi and Yifeng Zhu joined the meeting to provide more information on the program, noting that the certificate curriculum is nothing new for engineering – we have done lots of work in this area over the past several years.
 - Strong industry need for applications of AI as we have witnessed with data science and engineering in general.
 - S. Delcourt asked a question about ECE and COS courses that were listed as both required courses and elective courses in the certificate –

specifically, how similar were the required courses since students only needed to take one of the two. M. Musavi replied that one of the courses is more based on neural systems and the other is based on rule based artificial intelligence. Both are very useful courses.

- Y. Zhu mentioned that the course in deep learning has been offered in the past. The department will file paperwork to get it approved as a core course.
 - T. Yoo mentioned that he hasn't talked to the SCIS director yet about the prerequisites for this program. He would like to take it back to the faculty to discuss prior to discussing with Grad Board and then share the faculty feedback.
 - S. Delcourt suggested that we can conditionally approve it or table it and bring it back at the next meeting.
 - M. Musavi suggested that there is a pathway to complete this program 100% online. If there were a pathway to complete this program 100% online – M. LaRocque thinks that there is a market for this with working professionals – but, wouldn't want to market it before it was 100% online. S. Delcourt suggested that if there is a way to complete the certificate online, it may make sense to approve the certificate now as online rather than do a substantive change later on.
 - We will table this certificate for now to allow T.Yoo to talk with SCIS faculty, and for Mohamad Musavi to describe the online curriculum for the certificate.
- Graduate Certificate in Engineering Management
 - M. Musavi – this certificate is appealing to those already in the Engineering field, those working in industry who also need some knowledge in business & management.
 - There is consideration to offer this curriculum as a concentration within the MBA as well.
 - P. Agrawal is seeing an increasing trend with engineering students wanting to have business skills and background as well.
 - T.Yoo suggested that perhaps there should be some consideration to count some of the certificate courses toward the MBA. Since the certificate includes MBA courses, some courses definitely will count towards the MBA. If a concentration in engineering management is established, some of the engineering courses could count as well.
 - Motion to approve – J. Artesani, 2nd – J. McClymer
No opposition.
- Graduate Certificate in Assistant Special Education Administration
 - (Administration – Assistant Director)
 - D. Rooks- Ellis suggested that “State Teacher Certification” is the goal. These four courses already exist – just packaging them as a certificate which would lead to a specific teaching credential.
 - There was a suggestion for clarity to change the title of the certificate

to Graduate Certificate in Special Education Leadership: Assistant Administration (035)

- The official title would omit the (035) which is the specific Maine DOE endorsement

Motion to approve – J. Gill, 2nd – C. Beitel

No opposition to move forward

- 4+1 pathway in Biomedical Engineering

- Proposed pathway from BS to MS degree in Biomedical Engineering. S. Delcourt noted that there are over twenty 4+1 pathways at UMaine (<https://umaine.edu/graduate/programs/accelerated-programs/>). The Biomedical Engineering program may serve as a bridge to medical school or to a PhD program (GSBSE).

- A. Knightly suggested a revision on the 15 month time period that would allow thesis students more time to complete. 4+2 option is 27 months. It is a substantial tuition savings to be able to count the 9 credits towards both the undergrad and graduate degree

- D. Bousfield will bring this back to the faculty for discussion.

Motion to approve – W. Gramlich, 2nd – A. Knightly

No opposition to move forward.

- Items arising

- S. Delcourt reported on a few initiatives currently being developed through the Office of the Vice President for Research and Dean of the Graduate School:

- Teaching Academy – students from CITL Graduate Teaching Academy students would be eligible to apply as Doctoral students to teach on other campuses within the system.

- There are additional RRF funds from the UMS to help increase doctoral enrollment in non-STEM fields where grant funding is more limited and where UMaine confers fewer PhDs which impacts the University's Carnegie ranking. The call for nominations will come from the Office of Research Development (Jason Charland)

- A. Cruz-Urbe brought forward 2 issues:

- Can't pay for courses lower than 400 level with assistantships. As programs become increasingly interdisciplinary – it would be helpful to support students with gaps in their background.
- S. Delcourt will address with the Executive Committee and see if we can come up with some language to amend that rule.
- J. Gill – has taken some 300 level courses and added a component to make them more appropriate to fill 400 level as a short term fix.
- Quest for R1 status – faculty is being asked to do more & more things – faculty members are wondering what the benefits are?
 - J. Gill – the goal to reach R1 status could exacerbate other issues. (Childcare support, administrative support, technical support, etc...) Faculty want to be sure that these priorities

are just as high. Faculty need the support in order to push toward R1. S. Delcourt suggested that perhaps we could have the President and Vice President come to address the quest for R1 status and the related challenges and opportunities. The University of Maine's designated institutional peer group includes both R1 and R2 schools, so we are squarely in the middle with regard to our institutional characteristics.

- Happy Holidays! Please have a restful and safe holiday break!

Meeting Adjourned 4:45PM

CURRICULUM COMMITTEE REPORT

The Curriculum Committee met on January 19th, 2021 and, is recommending the following courses to the Graduate Board for approval at its February 25th meeting.

New Courses:

CIE 521 Civil Engineering Systems and Optimization

COS 535 Information Privacy Engineering

ENM 586 Advanced Project Management

FSN 543 Communication in Nutrition and Food Technology

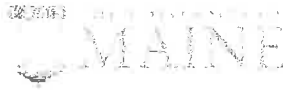
SPI 576 The U.S. Intelligence Community And National Security

Modifications:

ECE 585 Fundamentals of Wireless Communication

FYI

BMS 605 Responsible Conduct of Research in Biomedical Science and Engineering



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

Graduate course proposals, modifications, or eliminations must be submitted to the Graduate School no later than the 3rd of each month. Please refer to the Graduate School website for the Curriculum Committee meetings schedule. Electronic signatures and submission is required.

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT Civil and Environmental Engineering

COURSE DESIGNATOR CIE COURSE NUMBER 521 EFFECTIVE SEMESTER Fall 2021

COURSE TITLE Civil Engineering Systems and optimization

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

William G Davids Digitally signed by William G Davids
Date: 2021.01.06 09:13:45 -05'00'

College(s) Curriculum Committee Chair(s) (if applicable)

Digitally signed by Mohammad Masavi
DN: cn=Mohammad Masavi, o=University of Maine, ou=College of Engineering, email=m.masavi@umaine.edu, c=US
Date: 2021.01.06 09:24:26 -05'00'

College Dean(s)

Graduate School (sign and date)

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 1 (FOR NEW COURSE PROPOSALS)

Proposed Catalog Description (include designator, number, title, prerequisites, credit hours):

Designator: CIE
Number: 521
Title: Civil Engineering Systems and Optimization
Prerequisites: MAT 126, MAT 127, instructor permission
Credit Hours: 3
Description:
Formulation of decision-making problems at different hierarchical levels for engineering systems. Formulation of linear, integer and non-linear models; introduction to exact and approximate solution techniques; solution interpretation and sensitivity analysis; network terminology and problems; basics of game theory; multi-objective models, Pareto front and decision analysis; performing simulation analysis; analyzing simulation outputs; queuing analysis; transportation systems. Includes applications in civil engineering, transportation engineering, structural engineering, project selection, networks, allocation, routing/scheduling, and distribution.

Components (type of course/used by Student Records for MaineStreet) – Multiple selections are possible for courses with multiple non-graded components:

- Applied Music Clinical Field Experience/Internship Research Studio
 Laboratory Lecture/Seminar Recitation Independent Study Thesis

Text(s) planned for use:

- Civil and Environmental Systems Engineering, 2nd Edition, by Charles S. Raveffe, Earl Whitlatch and Jeff Wright; Pearson Prentice-Hall.
- Design and Operation of Civil and Environmental Engineering Systems, by Raveffe and McGarity, Wiley-Interscience, ISBN: 9780471128168
- Optimization Modeling, by Sarker and Newton, CRC Press, ISBN: 9781420043105
- Operations Research, by Winston, Thomson, ISBN: 9780534520205
- Simulation Modeling and Analysis, by Law and Kelton, McGraw-Hill, ISBN: 978007059292

Course Instructor (include name, position, teaching load):

Dr. Ali Shirazi
Assistant Professor
Teaching load: 50%

Reason for new course:

The course is proposed for grad students who study transportation engineering in Department of Civil and Environmental Engineering. The course is also useful for students from other civil engineering disciplines.

Does the course addition require additional department or institutional facilities, support and/or resources, e.g. new lab facilities, computer support and services, staffing (including graduate teaching assistants), or library subscriptions and resources?

- No. The department will not request additional resources for this course.
 Yes. Please list additional resources required and note how they will be funded or supported.

What other departments/programs are affected (e.g. course overlap, prerequisites)? Have affected departments/programs been consulted? Any concerns expressed? Please explain.

No concern is expected.

How often will this course be offered? Will offering this course result in overload salary payments, either through the college or CED, either to the instructor of this course or to anyone else as a result of rearranging teaching assignments?

every year; no

University of Maine
Department of Civil and Environmental Engineering

CIE 521
Civil Engineering Systems and Optimization

Fall 2021

Course Syllabus

| | |
|---------------------------|--|
| Instructor | Dr. Ali Shirazi Office: Boardman Hall 312 Office Hours: TBD Phone: TBD Email: shirazi@maine.edu |
| Course Description | CIE 521. Credits 3. Formulation of decision-making problems at different hierarchical levels for engineering systems. Formulation of linear, integer and non-linear models; introduction to exact and approximate solution techniques; solution interpretation and sensitivity analyses; network terminology and problems; basics of game theory; multi-objective models, Pareto front and decision analysis; performing simulation analysis; analyzing simulation outputs; queuing analysis; transportation systems. Includes applications in civil engineering, transportation engineering, structural engineering, project selection, networks, allocation, routing/scheduling, and distribution. |
| Lecture | TBD |
| Class Website | Lecture notes, homework assignments and other class material will be posted on online. |
| Books | <ul style="list-style-type: none"> • Civil and Environmental Systems Engineering, 2nd Edition, by Charles S. ReVelle, Earl Whitlatch and Jeff Wright; Pearson Prentice-Hall. • Design and Operation of Civil and Environmental Engineering Systems, by ReVelle and McGarity, Wiley-Interscience, ISBN: 9780471128168 • Optimization Modelling, by Sarker and Newton, CRC Press, ISBN: 9781420043105 • Operations Research, by Winston, Thomson, ISBN: 9780534520205 • Simulation Modeling and Analysis, by Law and Kelton, McGraw-Hill, ISBN: 9780070592926 |
| Attendance | Students are responsible to sign the attendance sheet in each class |
| Evaluation | <ul style="list-style-type: none"> • Homework (and Project) 30% of the grade • Exam 1 30% of the grade • Exam 2 (Final) 40% of the grade <p>NOTE: Exam 1 will be closed book/notes, but <u>one</u> 8.5x11 cheat sheet (both sides written) will be allowed for the exam. Exam 2 policy will be provided later in the semester. Exams can include any type of questions (True/False, multiple choice, work-out problems)</p> |
| Grading | <p>You will be <u>guaranteed</u> at least the following letter grades:</p> <p style="margin-left: 20px;">A: above 90; B: 80 to 90; C: 70 to 80; D: 60 to 70; F: below 60</p> <p>However, depending on the overall performance of the class, you might earn a better grade than what expected (example: you <u>might</u> earn an A even with a final score of 89)</p> |

| | |
|--------------------------|--|
| Course Assessment | <p>GSLG #1: <i>Understand, interpret, shape, and augment the knowledge base.</i></p> <p>PLO #1: Students will demonstrate facility with methods of advanced engineering analysis and utilize these methods to solve complex civil engineering problems.</p> |
| Course Outcomes | <p>Understanding the formulations of mathematical models and solution methods.</p> <p>Understanding the basics of simulation analysis, and comparing systems.</p> |
| Homework (HW) | <p>A set of 5-7 assignments (20%) and 1 project (10%)</p> <p>Homework are usually assigned Bi-weekly. <u>Due dates</u> will be indicated on assignments or on blackboard. Unless otherwise noted, homework will be due <u>at the beginning of the class</u> on the due date.</p> <p>Homework should be prepared in a <u>professional manner</u>:</p> <ul style="list-style-type: none"> • <u>Name, date, course section and HW number</u> should be clearly indicated. • Homework should be submitted on one side of a standard 8.5×11 paper, with all sheets <u>stapled together</u>. • Solutions should show all work neatly and in organized steps. • Final answers should be neatly identified. • Page numbers should be clearly indicated on each page <p>Late homework assignments will be penalized as follows:</p> <p style="padding-left: 40px;">up to 1 class late after due date: -25 points</p> <p style="padding-left: 40px;">up to 2 classes late after due date: -50 points</p> <p style="padding-left: 40px;">later: 0 in the assignment</p> <p>Collaboration among students is allowed, but you must turn in your own work: evident copies of assignments of different students will be given a single grade divided among the students involved.</p> |
| Objectives | <p>The main objectives of this course are summarized as follows:</p> <ul style="list-style-type: none"> • Formulation and optimization of real-world problems using mathematical modeling. • Formulating Linear, Integer and non-linear models. • Solving the Linear models using Simplex method. • Solving the Integer models using Branch and Bound, Heuristics, etc. • Performing sensitivity analysis on parameters of linear models. • Solving nonlinear models with and without constraints. (Golden Section, Method of Steepest Ascent/ Lagrange multiplier/ Kuhn-Tucker Conditions/Frank-Wolfe, etc.) • Understanding the basics of Game Theory. • Understanding the concept of duality. • Understanding the network terminology and applications of network (e.g. Minimum Cost problem, Shortest Path, etc.). Solving the shortest path problem. • Understanding the Multi Objective Function models, Pareto Front, and Multi Criteria Decision Making. • Performing Simulation Analysis (e.g.: input/output analysis/comparing systems). • Using Matlab SimEvents for simulation, queuing analysis and output analysis. • Understanding Transportation Network, User Equilibrium and System Optimum. • Solving the UE problem using Frank-Wolfe. |

| | |
|---|---|
| Academic Honesty Statement | Academic honesty is very important. It is dishonest to cheat on exams, to copy term papers, to submit papers written by another person, to fake experimental results, or to copy or reword parts of books or articles into your own papers without appropriately citing the source. Students committing or aiding in any of these violations may be given failing grades for an assignment or for an entire course, at the discretion of the instructor. In addition to any academic action taken by an instructor, these violations are also subject to action under the University of Maine Student Conduct Code. The maximum possible sanction under the student conduct code is dismissal from the University. Please see the University of Maine System's Academic Integrity Policy listed in the Board Policy Manual as Policy 314: https://www.maine.edu/board-of-trustees/policy-manual/section-314/ |
| Students Accessibility Services Statement | If you have a disability for which you may be requesting an accommodation, please contact Student Accessibility Services, 121 East Annex, 581.2319, as early as possible in the term. Students who have already been approved for accommodations by SAS and have a current accommodation letter should meet with me (Dr. Ali Shirazi) privately as soon as possible. |
| Course Schedule Disclaimer (Disruption Clause) | In the event of an extended disruption of normal classroom activities (due to COVID-19 or other long-term disruptions), the format for this course may be modified to enable its completion within its programmed time frame. In that event, you will be provided an addendum to the syllabus that will supersede this version. |
| Observance of Religious Holidays/Events | The University of Maine recognizes that when students are observing significant religious holidays, some may be unable to attend classes or labs, study, take tests, or work on other assignments. If they provide adequate notice (at least one week and longer if at all possible), these students are allowed to make up course requirements as long as this effort does not create an unreasonable burden upon the instructor, department or University. At the discretion of the instructor, such coursework could be due before or after the examination or assignment. No adverse or prejudicial effects shall result to a student's grade for the examination, study, or course requirement on the day of religious observance. The student shall not be marked absent from the class due to observing a significant religious holiday. In the case of an internship or clinical, students should refer to the applicable policy in place by the employer or site. |
| Sexual Discrimination Reporting | <p>The University of Maine is committed to making campus a safe place for students. Because of this commitment, if you tell a teacher about an experience of sexual assault, sexual harassment, stalking, relationship abuse (dating violence and domestic violence), sexual misconduct or any form of gender discrimination involving members of the campus, your teacher is required to report this information to the campus Office of Sexual Assault & Violence Prevention or the Office of Equal Opportunity.</p> <p>If you want to talk in confidence to someone about an experience of sexual discrimination, please contact these resources:</p> <p>For confidential resources on campus: Counseling Center: 207-581-1392 or Cutler Health Center: at 207-581-4000.</p> <p>For confidential resources off campus: Rape Response Services: 1-800-871-7741 or Partners for Peace: 1-800-863-9909.</p> <p>Other resources: The resources listed below can offer support but may have to report the incident to others who can help:</p> <p>For support services on campus: Office of Sexual Assault & Violence Prevention: 207-581-1406, Office of Community Standards: 207-581-1409, University of Maine Police: 207-581-4040 or 911. Or see the OSAVP website for a complete list of services at http://www.umaine.edu/osavp/</p> |

Tentative Schedule (Fall 2020)

| Date | | Topic |
|----------|---------------|--|
| <i>M</i> | Aug 31 | <i>Introduction/description of the class</i> |
| <i>W</i> | Sep 2 | <i>System Engineering/ Linear Program (Modeling/Formulation)</i> |
| <i>M</i> | Sep 7 | <i>No Class</i> |
| <i>W</i> | Sep 9 | <i>Linear Program (Modeling/Formulation) - Examples</i> |
| <i>M</i> | Sep 14 | <i>Linear Program (Solution- Graphical)</i> |
| <i>W</i> | Sep 16 | <i>Linear Program (Solution- Simplex)</i> |
| <i>M</i> | Sep 21 | <i>Duality</i> |
| <i>W</i> | Sep 23 | <i>Sensitivity Analysis (Graphical)</i> |
| <i>M</i> | Sep 28 | <i>Sensitivity Analysis (Simplex)</i> |
| <i>W</i> | Sep 30 | <i>Network (Terminology/MinCost, Shortest path, etc.)/ Dijkstra method</i> |
| <i>M</i> | Oct 5 | <i>Network (Terminology/MinCost, Shortest path, etc.)/ Dijkstra method</i> |
| <i>W</i> | Oct 7 | <i>Linear Program Multi OF</i> |
| <i>M</i> | Oct 12 | <i>No class</i> |
| <i>W</i> | Oct 14 | <i>Game Theory/zero Sum games/ (Exam 1 -Review)</i> |
| <i>M</i> | Oct 19 | Exam 1 |
| <i>W</i> | Oct 21 | <i>Integer Program (Modeling)</i> |
| <i>M</i> | Oct 26 | <i>Integer Program (Modeling), Knapsack Problem, Travel Salesman, etc.</i> |
| <i>W</i> | Oct 28 | <i>Integer Program (Solution- graphical)</i> |
| <i>M</i> | Nov 2 | <i>Integer Program (Solution- Branch and Bound, Heuristics, etc.)</i> |
| <i>W</i> | Nov 4 | <i>Simulation 1 - Input Analysis</i> |
| <i>M</i> | Nov 9 | <i>Simulation 2 - Input Analysis</i> |
| <i>W</i> | Nov 11 | <i>No class</i> |
| <i>M</i> | Nov 16 | <i>Simulation 3- Output Analysis/Comparing systems</i> |
| <i>W</i> | Nov 18 | <i>Simulation 4- Matlab Simulation</i> |
| <i>M</i> | Nov 23 | <i>Transportation Network 1 (UE/SO)</i> |
| <i>W</i> | Nov 25 | <i>Thanksgiving- No Class</i> |
| <i>M</i> | Nov 30 | <i>NLP1</i> |
| <i>W</i> | Dec 2 | <i>NLP2</i> |
| <i>M</i> | Dec 7 | <i>NLP3</i> |
| <i>W</i> | Dec 9 | <i>NLP4 / Transportation Network 2/ Final (Review)</i> |



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

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GRADUATE PROGRAM/UNIT Computer Science

COURSE DESIGNATOR COS COURSE NUMBER 535 EFFECTIVE SEMESTER Fall 2021

COURSE TITLE Information Privacy Engineering

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

Penny Rheingans Digitally signed by Penny Rheingans
DN: cn=Penny Rheingans, o, ou, email=penny.rheingans@maine.edu, c=US
Date: 2020.04.07 10:44:42 -0400

College(s) Curriculum Committee Chair(s) [if applicable]

Trudy M. Cole

College Dean(s)

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 1 (FOR NEW COURSE PROPOSALS)

Proposed Catalog Description (include designator, number, title, prerequisites, credit hours):

COS 535 information Privacy Engineering—Overview of the current privacy (and security) regulations across the world and the associated privacy (and security) challenges, methodologies and algorithms for applications ranging from Cyber-Physical Systems, the Internet of Things, Android/iOS applications, and machine learning models.
Prerequisites: COS420 or by permission. Credit hours 3

Components (type of course/used by Student Records for MaineStreet) – Multiple selections are possible for courses with multiple non-graded components:

- Applied Music Clinical Field Experience/Internship Research Studio
 Laboratory Lecture/Seminar Recitation Independent Study Thesis

Text(s) planned for use:

Information Privacy Engineering and Privacy by Design - William Stallings, 2019
M. F. Dennedy, J. Fox, and T. Finneran, " The Privacy Engineer's Manifesto: Getting from Policy to Code to QA to Value " . Apress, 2014.

Course Instructor (include name, position, teaching load):

Sepideh Ghanavati, Assistant Professor, 2 + 1

Reason for new course:

It is an important topic in computer science and we do not have any course that currently address these topics at the college level.

Does the course addition require additional department or institutional facilities, support and/or resources, e.g. new lab facilities, computer support and services, staffing (including graduate teaching assistants), or library subscriptions and resources?

- No. The department will not request additional resources for this course.
 Yes. Please list additional resources required and note how they will be funded or supported.

What other departments/programs are affected (e.g. course overlap, prerequisites)? Have affected departments/programs been consulted? Any concerns expressed? Please explain.

N/A

How often will this course be offered? Will offering this course result in overload salary payments, either through the college or CED, either to the instructor of this course or to anyone else as a result of rearranging teaching assignments?

Once a year - No overload salary paymenets

University of Maine
School of Computing and Information Science

Course Name: Engineering Privacy in Software Systems **Number:** COS435/535 **Semester:** Fall 2021
Classroom: Boardman Hall136 **Class Hours:** 8:00 AM – 9:15 PM (TT)

Instructor: Sepideh Ghanavati **Office:** Boardman Hall234 **Email:** sepidch.ghanavati@maine.edu
Instructor Office Hours: Tuesdays 12:30 – 1:30 PM or by appointments.

Catalogue Listing: Overview of the current privacy (and security) regulations across the world and the associated privacy (and security) challenges, methodologies and algorithms for applications ranging from Cyber-Physical Systems, the Internet of Things, Android/iOS applications, and machine learning models.

Reading Materials: A reading list is provided in another document. The instructor will include the required reading material from the list, at the end of each lecture slides. The reading materials will be divided into mandatory and optional readings.

Textbook: Information Privacy Engineering and Privacy by Design, By William Stallings, 2020

Course Prerequisites: COS420 or by permission.

Expected prior knowledge and skills in: The successful student should have introductory knowledge of software engineering including requirements, design, and testing, introductory knowledge of software security and proficiency in programming.

Course objectives:

This course covers the methods and tools needed to learn privacy concepts as well as to design and develop privacy-protecting applications.

Learning objectives:

- Learn the details of privacy concepts and challenges in privacy compliance.
- Integrate privacy into the software engineering lifecycle phases.
- Understand users' needs, perform user studies and design effective privacy notices.
- Evaluate software designs based on privacy principles and privacy requirements.
- Develop privacy-preserving systems.

Activities and Evaluation:

Students' performance will be evaluated based on class participation/discussions, assignments, a project and three exams.

- **Lectures** - There will be 150 minutes of lectures every week, Tuesdays and Thursdays, in which students will learn about topics in privacy engineering.
- **Readings** - Students will be assigned weekly readings from the academic papers on different aspects of privacy.
- **{CP} Class Participation, Discussions and Discussion Forum (15% + 5% (Extra))** - Students will reflect on reading materials and discussions in class as well as on the discussion forum on blackboard. Students will discuss different subjects related to the course based on the reading list or case analysis in class. The participation of all students is required. In addition, students must assess and give feedback on other students' projects. Discussions are an **individual** assessment.

- (A) – Assignments (30%) – Students will submit 3 take-home assignments whereby students apply methods taught in class to sample problems. The assignments will be either **individual** or **group** efforts, depending on the nature of the assignment. The instructor will announce the type in class.
- (D) – Discussant Activity (10%) – Each student will select one of the course topics and act as a discussant on the day that the topic will be taught in class based on the syllabus. The discussant will review 2 – 4 papers related to the topic before the session and will open up the session by presenting some of the challenges identified in those papers to the class. This is an **individual** assessment. More details are given in another document on blackboard.
- (TP) – Term Project (45%) – Students will work on a project on a topic from the list given by the instructor. The detail of the topics must be approved by the instructor by the deadline specified below. The aim of these projects is to delve into one of the emerging topics related to privacy from point of view of regulations, users or developers. The details of the project are given on Blackboard.
- Attendance Policy – Students are allowed to have 4 free absences (whether excused or not). More than 4 absences will be penalized. The 5th missed class will result in 2% deduction of the overall final grade. After that, each absence, except on the days of students' presentations, will count as 1% deduction of the overall final grade. For example, if the total grade at the end of the semester is 90% and the student have missed 5 classes, the final grade will be 88%. On the days of students' presentations, each absence, unless having a valid excuse, will have 3% deduction of the overall final grade, regardless of having any free absence left. If a student comes late to their own presentation, the presentation's grade will be deducted by 20% for that specific student. Note that, if the students show up more than 10 minutes later than the start of the class (i.e. after 11:10AM), they will also be marked as absent.
- Note that, the total of possible grade in this class is 105% which includes 5% bonus mark.

Grading Policy:

The grading scale for the final mark is as follows:

| Letter Grades | Numerical Range |
|---------------|-----------------|
| A | 94 - 100 |
| A- | 90 - 93.99 |
| B+ | 87 - 89.99 |
| B | 84 - 86.99 |
| B- | 80 - 83.99 |
| C+ | 77 - 79.99 |
| C | 74 - 76.99 |
| C- | 70 - 73.99 |
| D+ | 67 - 69.99 |
| D | 64 - 66.99 |
| D- | 60 - 63.99 |
| F | 0 - 59.99 |

This scale may be curved to raise student grades at the instructor's discretion.

- Submitted work is due when specified. **With the instructor's permission and only in special cases**, you may be able to submit 1-3 days late (with a penalty). For every 12 hours of late submission, 5% marks will be deducted. That is, if you are late by 3 full days, 30% mark will be deducted. After the 3rd full day, your assignment, project and reports will be marked as 0, **with no exception.**
- Every submission has to be done through Blackboard in a digital format. Submissions via email or in person will be marked as 0. If you encounter any problems with Blackboard, it is your own duty to inform the instructor **in a timely manner, before the due date.** Blackboard problems can't be used as an excuse for late submission.

Course Schedule: The table (below) provides the initial distribution of topics discussed over the weeks in the semester. This schedule is tentative and **subject to change during the semester at the instruction discretion**. All changes will be announced in class or on the course website (Blackboard). Students are responsible for making sure they are informed about announcements.

| Week | Class (TT) | Activity | Material |
|------|------------|----------|--|
| 1 | 09/03 | L0 | Syllabus, Introduction and Academic Paper Writing |
| | 09/05 | L1 | Introduction to Information Privacy & Privacy Engineering |
| 2 | 09/10 | L2 | Introduction to Privacy Laws |
| | 09/12 | L3 | Conceptual Frameworks for Privacy – Topic Selection (Due Date) |
| 3 | 09/17 | L4 | Privacy and Regulatory Compliance – Assignment 1 (Posted) |
| | 09/19 | L5 | Privacy Engineering Lifecycle Methodology – Architecture |
| 4 | 09/23 | - | Project Deliverable 0 (Due Date) |
| | 09/24 | L6 | Privacy Engineering Lifecycle Methodology – Stage 1 and 2 |
| | 09/26 | L7 | Privacy Engineering Lifecycle Methodology – Stage 3 – 6 |
| 5 | 10/01 | L8 | Introduction to Privacy by Design |
| | 10/03 | L9 | Introduction to Privacy by Design |
| 6 | 10/08 | L10 | Usable Privacy – Notice & Choice – Assignment 1 (Due Date) |
| | 10/10 | L11 | Guest Lecture – Assignment 2 (Posted) |
| 7 | 10/14 | - | Project Deliverable 1 (Due Date) |
| | 10/15 | - | Fall Break |
| | 10/17 | L12 | Usable Privacy – Design and Development of Privacy Policies |
| 8 | 10/22 | L13 | Usable Privacy – Usability Studies and IRB |
| | 10/24 | L14 | Usable Privacy – Overview of Applied Statistics |
| 9 | 10/29 | L15 | Privacy and Social Network |
| | 10/31 | L16 | Internet Monitoring and Web Tracking |
| | 11/03 | - | Assignment 2 (Due Date) |
| 10 | 11/05 | L17 | Anonymity and Identity – Onion Routing, etc. – Assignment 3 (Posted) |
| | 11/07 | L18 | Anonymity and Identity – Anonymization Techniques |
| | 11/10 | - | Project Deliverable 2 (Due Date) |
| 11 | 11/12 | L19 | Anonymity and Identity – Differential Privacy - Introduction |
| | 11/14 | L20 | Anonymity and Identity – Differential Privacy and AI |
| 12 | 11/19 | L21 | Privacy and Emerging Technologies – Smartphones |
| | 11/21 | L22 | Privacy and Emerging Technologies – IoT |
| 13 | 11/26 | - | No Class |
| | 11/28 | - | Thanksgiving Break |
| 14 | 12/03 | L23 | Privacy and Emerging Technologies – Cloud |
| | 12/05 | - | TBD - Project Deliverable 3 (Due Date) |
| 15 | 12/10 | P2 | Project's Presentations – Posters |
| | 12/12 | P3 | Project's Presentations – Posters |
| | 12/14 | - | Assignment 3 (Due Date) |

Academic Honesty Statement:

Academic honesty is very important. It is dishonest to cheat on exams, to copy term papers, to submit papers written by another person, to fake experimental results, or to copy or reword parts of books or articles into your own papers without appropriately citing the source. Students committing or aiding in any of these violations may be given failing grades for an assignment or for an entire course, at the discretion of the instructor. In addition to any academic action taken by an instructor, these violations are also subject to action under the University of Maine Student Conduct Code. The maximum possible sanction under the student conduct code is dismissal from the University. Please see the University of Maine System's Academic Integrity Policy listed in the Board Policy Manual as Policy 314: <https://www.maine.edu/board-of-trustees/policy-manual/section-314/>

Students Accessibility Services Statement:

If you have a disability for which you may be requesting an accommodation, please contact Student Accessibility Services, 121 East Annex, 581.2319, as early as possible in the term. Students who have already been approved for accommodations by SAS and have a current accommodation letter should meet with me, Dr. Sepideh Ghanavati, privately as soon as possible.

Course Schedule Disclaimer (Disruption Clause):

In the event of an extended disruption of normal classroom activities (due to COVID-19 or other long-term disruptions), the format for this course may be modified to enable its completion within its programmed time frame. In that event, you will be provided an addendum to the syllabus that will supersede this version.

UMaine Student Code of Conduct:

All students are expected to conform to the UMaine Student Code of Conduct.

Classroom Civility:

Civility should be conveyed to all others through courteous expression, politeness, esteem and regard for others, and a general respect for others, regardless of differences from self.

Inclusive and Non-Sexist Language:

The University of Maine, as an equal opportunity educational institution, is committed to both academic freedom and the fair treatment of all individuals. It therefore discourages the use of sexist language. Language that reinforces sexism can arise from imprecise word choices that may be interpreted as biased, discriminatory, or demeaning even if they are not intended to be. Accordingly, all University communications, whether delivered orally or in writing, shall be free of sexist language.

This policy shall apply to all future University publications, whether produced through Public Affairs or elsewhere, that are intended for distribution to students, parents, faculty, staff, or other people interested in the University of Maine. University publications shall include, but not necessarily be limited to: University printing office publications; promotional materials distributed by all units of the University both academic and nonacademic; and policy booklets prepared for students and faculty. Inventory on hand of existing publications may be used until exhausted or a publication is revised.

Each member of the University community is urged to be sensitive to the impact of language and to make a personal commitment to eliminate sexist language. Supervisory personnel have a particular responsibility to discuss this policy with faculty and staff and to make available to them guidelines on nonsexist language. Guidelines of the American Psychological Association on the use of nonsexist language provide direction and are recommended because they are brief and list examples, but others may be used. Consult the Communications and Marketing Department or Women's Gender and Sexuality Studies Program for alternatives (<https://umaine.edu/womensgenderandsexualitystudies/>)

Observance of Religious Holidays/Events:

The University of Maine recognizes that when students are observing significant religious holidays, some may be unable to attend classes or labs, study, take tests, or work on other assignments. If they provide adequate notice (at least one week and longer if at all possible), these students are allowed to make up course requirements as long as this effort does not create an unreasonable burden upon the instructor, department or University. At the discretion of the instructor, such coursework could be due before or after the examination or assignment. No adverse or prejudicial effects shall result to a student's grade for the examination, study, or course requirement on the day of religious observance. The student shall not be marked absent from the class due to observing a significant religious holiday. In the case of an internship or clinical, students should refer to the applicable policy in place by the employer or site.

Sexual Discrimination Reporting:

The University of Maine is committed to making campus a safe place for students. Because of this commitment, if you tell a teacher about an experience of **sexual assault, sexual harassment, stalking, relationship abuse (dating violence and domestic violence), sexual misconduct or any form of gender discrimination** involving members of the campus, **your teacher is required to report** this information to the campus Office of Sexual Assault & Violence Prevention or the Office of Equal Opportunity.

If you want to talk in confidence to someone about an experience of sexual discrimination, please contact these resources:

For confidential resources on campus: **Counseling Center: 207-581-1392** or **Cutler Health Center: at 207-581-4000.**

For confidential resources off campus: **Rape Response Services: 1-800-310-0000** or **Partners for Peace: 1-800-863-9909.**

Other resources: The resources listed below can offer support but may have to report the incident to others who can help:

For support services on campus: **Office of Sexual Assault & Violence Prevention: 207-581-1406, Office of Community Standards: 207-581-1409, University of Maine Police: 207-581-4040 or 911.** Or see the OSAVP website for a complete list of services at <http://www.umaine.edu/osavp/>

Copyright Notice for Materials Accessible through this Website

Most materials accessible through this site, such as linked articles, should be assumed to be copyright protected.

1. Unless the "fair use" provisions of copyright law apply or language is contained in a work permitting its use, permission should be obtained from the copyright holder for copying the work.
2. Use of the instructor prepared web pages and the slides affiliated with each lecture on the syllabus may be assumed to be controlled by the University of Maine System Broad Application Copyleft License (proposed, current, or future) or through a similar license that may be posted at the bottom of each web page.
3. All class videos (lectures) should be assumed to be copyright protected in accordance with the University of Maine System Statement of Policy Governing Patents and Copyrights.

Contingency Plans in the Event of an Epidemic:

In the event of an influenza or similar epidemic that precludes the ability to meet in face-to-face sessions, assume that the instructor will either (1) host the course on our usual ConnectPro url for the class at the normal time and everyone will participate at a distance or (2) record a video of the lecture I would have otherwise presented in person and post it for viewing by downloading from the syllabus and/or from a web streaming

video site (example: recorded on ConnectPro or recorded and then posted on the Spatial Information Science and Engineering YouTube Channel). All other reading and module assignments should proceed as usual. If you yourself become sick, simply inform the instructor and the instructor will arrange appropriate extensions based on your particular circumstances.



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

Graduate course proposals, modifications, or eliminations must be submitted to the Graduate School no later than the 3rd of each month. Please refer to the Graduate School website for the Curriculum Committee meetings schedule. Electronic signatures and submission is required.

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT Engineering

COURSE DESIGNATOR ENM COURSE NUMBER 586 EFFECTIVE SEMESTER Fall'21

COURSE TITLE Advanced Project Management

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change


ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

 11/30/20

College(s) Curriculum Committee Chair(s) (if applicable)

Mohamd Musavi

Digitally signed by Mohamd Musavi
DN: cn=Mohamd Musavi, o=University of Maine,
ou=College of Engineering, email=musavi@maine.edu,
c=US
Date: 2020.11.19 20:33:51 -0500'

College Dean(s)

 11/30/20

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 1 (FOR NEW COURSE PROPOSALS)

Propose: Catalog Description (include designator, number, title, prerequisites, credit hours):

ENM 586 - Advanced Project Management
Course covers a wide range of project management topics including project planning, controlling, scheduling, and risk analysis. Through lecture and case studies, students will be prepared to become project management professionals and will learn to bring projects to successful completion. The course also emphasizes the human relations aspects of project management such as team theory and personnel conflict. Prerequisites: Senior standing, graduate standing, or permission of instructor. 3 credits.

Components (type of course/used by Student Records for MaineStreet) - Multiple selections are possible for courses with multiple non-graded components:

- Applied Music Clinical Field Experience/Internship Research Studio
 Laboratory Lecture/Seminar Recitation Independent Study Thesis

Text(s) referred to:

Project Management: A Systems Approach to Planning, Scheduling, and Controlling, 12th Edition, Harold Kerzner, Wiley & Sons, Hoboken, NJ, 2001.

Course will also use material from (but not required): A Guide to the Project Management Body of Knowledge, 4th Edition, Project Management Institute, Newton Square PA, 2008

Course instructor (include name, position, teaching load):

Jude Pearse, Professor of Electrical Engineering Technology. 100% teaching appointment - typically 6 courses per year. This course will generally be taught as an overload.

Reason for course:

This is a required course for a new Certificate in Engineering Management. This course will replace GEE 486 Advanced Project Management, which is a required course for the existing Professional Science Masters in Engineering and Business. Replacing GEE 486 with ENM 586 better reflects the intended graduate student audience for this course. It uses a new designator, ENM (engineering management). In the future, additional course will be added under this designator. ENM 586 will be taught online to meet the need of working professionals.

Does the course addition require additional department or institutional facilities, support and/or resources, e.g. new lab facilities, computer support and services, staffing (including graduate teaching assistants), or library subscriptions and resources?

- No. The department will not request additional resources for this course.
 Yes. Please list additional resources required and note how they will be funded or supported.

The course will generally be taught as an overload through the Division of Life Long Learning.

What other department(s)/program(s) are affected (e.g. course overlap, prerequisites)? Have affected departments/programs been consulted? Any concerns expressed? Please explain.

The Interim Dean of the Graduate School of Business, Faye Gilbert, has been a partner in developing the new Certificate in Engineering Management. Dr. Gilbert was consulted on eliminating GEE 486 and replacing with ENM 586.

How often will this course be offered? Will offering this course result in overload salary payments, either through the college or CEO, either to the instructor on this course or to anyone else as a result of rearranging teaching assignments?

The course will be taught every other fall. The course will generally be taught as an overload through the Division of Life Long Learning.

ENM586
Advanced Project Management
Credit Hours: 3

| | |
|------------------|---|
| Course Schedule: | To be determined |
| Online Delivery: | Brightspace Zoom (meeting invitation to be sent via @maine.edu email) Discord (server link to be provided by instructor) |
| Instructor: | Professor Jude Pearse 9 Barrows Hall Email: jpearse@maine.edu Cell: 207-542-5523 |
| Prerequisite(s): | Senior Standing, earned BS degree, or permission of instructor |
| Office Hours: | TBD |
| Text: | <u>Project Management: A Systems Approach to Planning, Scheduling, and Controlling, 12th Edition. Harold Kerzner, Wiley& Sons, Hoboken, NJ. 2001 (should rent)</u> Course will also use material from (but not required): <u>A Guide to the Project Management Body of Knowledge, 6th Edition. Project Management Institute, Newton Square, PA.2008</u> – But this is not a required text. |
| Software: | Microsoft Project (provided by instructor); Microsoft Excel |

Course Outcomes:

By the course completion, students participating in ENM586 should be able to:

- ◆ Utilize personnel management skills to facilitate discussions, build effective teams, and evaluate other project personnel
- ◆ Identify and resolve potential obstacles encountered during a project life cycle
- ◆ Implement a project plan and perform all project reporting necessary
- ◆ Analyze project risk factors and develop contingency plans
- ◆ Demonstrate how to bring a successful project plan to completion

ENM Course Policies

Homework

Homework will generally be assigned, via Brightspace,, on a weekly basis and will be collected and graded. No late homework will be accepted unless prior arrangements (24 hours' notice, minimum) have been made with the professor. Students should be prepared to perform homework solutions during class as requested. Homework assignments completed by individuals (vs. Team Projects, see below) will comprise 25% of the final grade.

Exams

Exams will be conducted online, and will require an approved proctor. A period of time will be allotted for each exam to better accommodate varying student schedules. Students should be aware that taking an exam is an INDIVIDUAL, not group, effort. Any collaboration on an exam will result in an automatic zero for that exam and probable expulsion from the course. Prelims will account for 30% of each student's final grade.

Team Projects/Reports

Students will often be asked to perform homework (such as analyzing risk in a given project plan) in a team situation. As Team Projects will require more thought and collaboration than standard homework assignments, each team will have two weeks to complete the Team Project or Report. Each member of the team will share the grade received on the report unless Team Evaluations indicate a lower grade should be assigned. It is the responsibility of the entire team to ensure that the work is completed. Note that Group Assignments will include anonymous team evaluation forms by which students will rank other team members on quantity and quality of their work on the homework assignment. Team Projects/Reports will account for 20% of each student's final grade.

Final Project/Final Exam

At the end of the semester, a Final Project or Final Exam, culminating in the use of all information learned in the semester, will be required. The final project will involve a thorough analysis and term paper covering aspects of a project chosen by the student and/or professor; a final exam will be a composite of all material learned throughout the semester. This element will account for 25% of each student's grade.

Grading Policy

Each student's final grade will be calculated using the formula:

Final Grade = .20 x Team Projects + .25 x Individual IIW Assignments + .30 x Prelim Avg. + .25 x Final Project/Exam

% to Letter Grade Scale

| | |
|-------|------|
| ≥93 | = A |
| 90-92 | = A- |
| 87-89 | = B+ |
| 83-86 | = B |
| 80-82 | = B- |
| 77-79 | = C+ |
| 73-76 | = C |
| 70-72 | = C- |
| 67-69 | = D+ |
| 63-66 | = D |
| 60-62 | = D- |
| ≤59 | = F |

Academic Honesty Statement:

Academic honesty is very important. It is dishonest to cheat on exams, to copy term papers, to submit papers written by another person, to fake experimental results, or to copy or reword parts of books or articles into your own papers without appropriately citing the source. Students committing or aiding in

any of these violations may be given failing grades for an assignment or for an entire course, at the discretion of the instructor. In addition to any academic action taken by an instructor, these violations are also subject to action under the University of Maine Student Conduct Code. The maximum possible sanction under the student conduct code is dismissal from the University.

Additional Academic Integrity Policies Specific to This Course:

The homework assignments in this class are designed to help you learn the material, and each is to be completed on an individual, not partner or group, basis. As such, plagiarism in any form will not be tolerated. If the instructor suspects any person(s) of cheating and/or plagiarizing - which includes, but is not limited to - copying homework problems, cheating on exams or quizzes, etc. - the following steps will be taken:

- The instructor will speak to any person(s) involved. If deemed appropriate, all person(s) involved will receive a grade of zero for that project, homework assignment, or exam.
- Each person involved will sign a statement verifying that the actions stated above were performed. This document will go into each person's student file until he or she graduates from the program.
- If the plagiarism/cheating occurs on an exam, all person(s) involved will be immediately referred to Student Judicial Services at UMaine. Actions that may be possible at that time include: Immediate failure of the course, temporary suspension or possible expulsion from the University system.
- If the plagiarism/cheating occurs on a homework assignment, the following two statements apply:
 - If any such statement is currently in the student's file, that student will immediately be referred to Student Judicial Services at UMaine. Actions that may be possible at that time include: Immediate failure of the course, temporary suspension or possible expulsion from the University system.
 - If no other statement is in the student's file, the student may not be referred to Student Judicial Services unless another infraction occurs during any other UMaine class taken by that student.

Sexual Discrimination Reporting

The University of Maine is committed to making campus a safe place for students. Because of this commitment, if you tell a teacher about an experience of **sexual assault, sexual harassment, stalking, relationship abuse (dating violence and domestic violence), sexual misconduct or any form of gender discrimination** involving members of the campus, **your teacher is required to report** this information to Title IX Student Services or the Office of Equal Opportunity.

If you want to talk in confidence to someone about an experience of sexual discrimination, please contact these resources:

For *confidential resources on campus*: **Counseling Center: 207-581-1392** or **Cutler Health Center: at 207-581-4000**.

For *confidential resources off campus*: **Rape Response Services: 1-800-871-7741** or **Partners for Peace: 1-800-863-9909**.

Other resources: The resources listed below can offer support but may have to report the incident to others who can help:

For *support services on campus*: **Title IX Student Services: 207-581-1406, Office of Community Standards: 207-581-1409, University of Maine Police: 207-581-4040 or 911. Or**

Students Needing Disability Accommodations

If you have a disability for which you may be requesting an accommodation, please contact Student Accessibility Services, 121 East Annex, 581.2319, as early as possible in the term. Students who have already been approved for accommodations by SAS and have a current accommodation letter should meet with me (the instructor of the course) privately as soon as possible.

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In the event of an extended disruption of normal classroom activities (due to COVID-19 or other long-term disruptions), the format for this course may be modified to enable its completion within its programmed time frame. In that event, you will be provided an addendum to the syllabus that will supersede this version.

Updated language for the required statements can be found at:

<https://umaine.edu/citl/teaching-resources-2/required-syllabus-information/>

ENM586: Advanced Project Management Tentative Syllabus

| Week | Topics | Reading (unless noted otherwise, all reading from Kerzner) |
|------|--|---|
| 1 | Syllabus Review An Overview of Project Management: Key Terms and Definitions Project Life Cycles | Sections 1.1 – 1.5, 1.10 – 1.15 |
| 2 | Organizational Structures Selecting the Project Manager | 3.0 – 3.8, 3.11, 4.0 – 4.3 |
| 3 | The PM's Roles and Responsibilities Effective Persuasion The Project Team | Section 4.8 |
| 4 | PRELIM#1 Negotiation | No additional reading |
| 5 | Time & Stress Management for the PM Conflict Resolution | 6.0 – 6.4, 7.0 – 7.6 |
| 6 | Communication Project Planning | 11.0 – 11.9 |
| 7 | Project Planning, Continued Network Scheduling Tools | 11.10 – 11.11, 11.17, 11.22 – 11.24, 12.0 – 12.3 |
| 8 | Prelim 2 Review Network Scheduling Techniques MSProject Introduction | 12.4 – 12.9, 12.12 – 12.15 |
| 9 | Chapter 10 – Working With Executives | 10.0 – 10.7 Case Study: The Prioritization of Projects (page 499 in text) Case Study: Selling Executives on Project Management (page 502 in text) |
| 10 | Leadership- MSProject PRELIM #2 | 5.5-5.9, 5.11, 5.13-5.15, 5.17, 5.19, 5.24-5.26 |
| 11 | Pricing and Estimating | 14.1 – 14.2, 14.6, 14.13 – 14.17, 14.20 – 14.27 |
| 12 | Cost Control Managing Project Quality | 15.1, 15.4 – 15.7, 20.0 – 20.1, 20.6 – 20.7, 20.9, 20.13 – 20.14, 20.18 |
| 13 | Risk Analysis PRELIM #3 | 17.1 – 17.10, 17.12 – 17.13, 17.15 |
| 14 | Alleviating Scope Creep The Variables for Success | 22.0 – 22.4, 9.0 – 9.5 |
| 15 | Final Exams Week: FINAL EXAM | No further reading - just study for the exam! |



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

Graduate course proposals, modifications, or eliminations must be submitted to the Graduate School no later than the 3rd of each month. Please refer to the Graduate School website for the Curriculum Committee meetings schedule. Electronic signatures and submission is required.

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT Food Science and Human Nutrition
COURSE DESIGNATOR FSN COURSE NUMBER 543 EFFECTIVE SEMESTER Spring 2022
COURSE TITLE Communication in Nutrition and Food Technology

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

Robert Causey

Digitally signed by Robert Causey
Date: 2020.10.13 16:20:43 -04'00'

College(s) Curriculum Committee Chair(s) [if applicable]

College Dean(s)

Christopher Gerbi

Digitally signed by Christopher Gerbi
Date: 2020.10.16 05:45:58 -04'00'

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 1 (FOR NEW COURSE PROPOSALS)

Proposed Catalog Description (include designator, number, title, prerequisites, credit hours):

FSN 543 Communication in Nutrition and Food Technology is designed to provide preparation for effective delivery of oral and written presentations in the fields of Nutrition and Food Technology. The course will also explore the differences and similarities in presenting to the scientific community and lay audiences and finally, the course will study other forms of communication including blogs, podcasts, social media. 3 credits

Components (type of course/used by Student Records for MaineStreet) – Multiple selections are possible for courses with multiple non-graded components:

- Applied Music Clinical Field Experience/Internship Research Studio
 Laboratory Lecture/Seminar Recitation Independent Study Thesis

Text(s) planned for use:

Mayfield, B. Communicating nutrition. The authoritative guide. ISBN 978-0-88091-017-0. Academy of Nutrition and Dietetics, Chicago IL 60606.
Hofmann, A. Scientific Writing and Communication. 4th edition. Oxford University Press.

Course Instructor (include name, position, teaching load):

Mona Therrien, Lecturer, 100 % teaching is primarily responsible for the course, however this will be team-taught

Reason for new course:

This course fills a gap in our UMaineGOLD MS in Human Nutrition and Food Technology. This course will be required by all MS UMaineGOLD students.

Does the course addition require additional department or institutional facilities, support and/or resources, e.g. new lab facilities, computer support and services, staffing (including graduate teaching assistants), or library subscriptions and resources?

- No. The department will not request additional resources for this course.
 Yes. Please list additional resources required and note how they will be funded or supported.

What other departments/programs are affected (e.g. course overlap, prerequisites)? Have affected departments/programs been consulted? Any concerns expressed? Please explain.

There are no prerequisites. The class is meant to offer an online version of some of the material covered in FSN 571 Technical presentations and FSN 671 Graduate Seminar. FSN 571 and FSN 671 are F2F courses and are not structured for online or for the GOLD program criteria.

How often will this course be offered? Will offering this course result in overload salary payments, either through the college or CED, either to the instructor of this course or to anyone else as a result of rearranging teaching assignments?

We have just submitted a faculty position proposal. This course would eventually be part of the regular load for the new proposed faculty, therefore no overload salary payments would be required.

Course Description and Syllabus

FSN 543 Communication in Nutrition and Food Technology

Prerequisites: None

Faculty Information: Modules will be co-taught by FSN faculty.

Primary Instructor: Dr. Mona Therrien

Phone: 581-3130

Email: mona.therrien@maine.edu

Office: 120 Hitchner Hall

Office hours: virtual M 1-3

Instructional Materials: Lectures for this class have been recorded and placed on Brightspace

Textbook and other materials (optional):

Mayfield, B. Communicating nutrition. The authoritative guide. ISBN 978-0-88091-017-0. Academy of Nutrition and Dietetics, Chicago IL 60606.

Hofmann, A. Scientific Writing and Communication. 4th edition. Oxford University Press.

Course Description: 3 credit course designed to provide preparation for effective delivery of oral and written presentations. The course will also explore the differences and similarities in presenting to the scientific community and lay audiences and finally, the course will study other forms of communication including blogs, podcasts, social media.

Prerequisites: None

Student Learning Outcomes

By the end of the course, students will be able to

- Describe the components of successful science communication.
- Modify science communication for a variety of audiences.
- Present scientific information using a variety of professional platforms.
- Disseminate scientific information using social media.
- Critically evaluate scientific presentations.
- Describe the publication process including preparing a manuscript for publication and the journal submission process.
- Create a professional resume and describe the basic components of a successful interview.

| Week of | Topic | Instructor and Readings |
|----------------|--|--|
| Week 1 | Introduction to science communication: scientific writing | Mona Therrien Hoffman Chapters 1-8 |
| Week 2 | Writing a scientific proposal | Dorothy Klimis-Zacas Hoffman Chapters 20-28 |
| Week 3 | Exploring the components of a journal article, evaluating scientific literature Assignment: Critical analysis of journal article | Mona Therrien Mayfield Chapter 4, 5, 6 |
| Week 4 | Writing a manuscript and the publication process | Denise Skonberg Mayfield Chapter 41 Hoffman Chapters 11-18 |
| Week 5 | Reporting statistics/preparing graphs and tables Assignment: Initial proposal outline and bibliography | Mary Ellen Camire Hoffman Chapters 9 & 10 |
| Week 6 | Preparing poster presentations and conference abstracts | Jen Perry Hoffman Chapter 29 |
| Week 7 | Preparing oral presentations Assignment: Revised outline and bibliography | Jade McNamara Mayfield Chapters 16-21 Hoffman Chapter 30 |
| Week 8 | Ethics in scientific communications | Mona Therrien Mayfield Chapter 9 |
| Week 9 | Scientific communication using newsletters, blogs, podcasts and social media Assignment: Assessing the credibility of blogs | Kathryn Yerxa Mayfield Chapters 22-26 |
| Week 10 | Publication in popular media (newspapers & magazines) Assignment: Final proposal submitted | Mona Therrien Mayfield Chapters 27-31 |

| | | |
|---------|---|---|
| Week 11 | Preparing oral presentations for a lay audience | Jade McNamara Mayfield Chapters 10-15 |
| Week 12 | Preparing for job applications and interviews | Mona Therrien Hoffman Chapter 31 |
| Week 13 | Poster presentations | |
| Week 14 | Scientific oral presentations | |

Grading

Course requirements

| | |
|--------------------------------------|------------|
| Critical analysis of journal article | 50 points |
| Initial proposal outline | 50 points |
| Revised proposal outline | 50 points |
| Blog assignment | 50 points |
| Final proposal | 100 points |
| Poster presentation | 100 points |
| Oral presentation | 100 points |

| | |
|--------------|------------|
| Total points | 500 points |
|--------------|------------|

| <u>Total points</u> | <u>Grade</u> |
|---------------------|--------------|
| 465-500 | A |
| 450-464 | A- |
| 435-449 | B+ |
| 415-434 | B |
| 400-414 | B- |
| 385-389 | C+ |
| 365-384 | C |
| 350-364 | C- |
| 335-349 | D+ |
| 315-334 | D |
| 300-314 | D- |
| < 300 | F |

Critical Analysis of a Journal Article: students will be responsible for identifying a primary research article related to their proposal subject, analyzing the article using an approved model, and presenting their article at the scheduled journal club.

Initial proposal outline: students will be responsible for presentation of project outline and will engage in informal discussions with classmates to obtain feedback on proposal topics. Students will submit proposal outline to instructor along with draft of bibliography

Revised outline and bibliography: students will revise outline and bibliography based on instructor edits.

Final Proposal: students will be responsible for identifying a research question or problem in human nutrition or food technology, performing a thorough literature review, and outlining possible solutions or research projects after analysis of the literature.

Poster presentation: students will be responsible for creating a poster presentation on their research topic. Posters presentations will be recorded and placed in the My Media. All students will be expected to view and conduct peer-review evaluations of poster sessions.

Oral presentation: students will be responsible for presenting their research topic in a scientific oral presentation. Oral presentations will be recorded and placed in My Media. All students will be expected to view and critique oral sessions.

Analysis of Nutrition, Health and Fitness Blogs: students will be responsible for identifying one current human nutrition or food technology blogger and critically assess the accuracy of the content that was created for the lay audience. Assignment will be posted as a discussion post and students will be expected to review all submission.

Academic honesty is very important. It is dishonest to cheat on exams, to copy term papers, to submit papers written by another person, to fake experimental results, or to copy or reword parts of books or articles into your own papers without appropriately citing the source. Students committing or aiding in any of these violations may be given failing grades for an assignment or for an entire course, at the discretion of the instructor. In addition to any academic action taken by an instructor, these violations are also subject to action under the University of Maine Student Conduct Code. The maximum possible sanction under the student conduct code is dismissal from the University.

If you have a disability for which you may be requesting an accommodation, please contact Student Accessibility Services, 121 East Annex, 581.2319, as early as possible in the term. Students who have already been approved for accommodations by SAS and have a current accommodation letter should meet with me (the instructor of the course) privately as soon as possible.

In the event of an extended disruption of normal classroom activities (due to COVID-19 or other long-term disruptions), the format for this course may be modified to enable its completion within its programmed time frame. In that event, you will be provided an addendum to the syllabus that will supersede this version.

The University of Maine recognizes that when students are observing significant religious holidays, some may be unable to attend classes or labs, study, take tests, or work on other assignments. If they provide adequate notice (at least one week and longer if at all possible), these students are allowed to make up course requirements as long as this effort does not create an unreasonable burden upon the instructor, department or University. At the discretion of the instructor, such coursework could be due before or after the examination or assignment. No adverse or prejudicial effects shall result to a student's grade for the examination, study, or course requirement on the day of religious observance. The student shall not be marked absent from the class due to observing a significant religious holiday. In the case of an internship or clinical, students should refer to the applicable policy in place by the employer or site.

The University of Maine is committed to making campus a safe place for students. Because of this commitment, if you tell a teacher about an experience of **sexual assault, sexual harassment, stalking, relationship abuse (dating violence and domestic violence), sexual misconduct or any form of gender discrimination** involving members of the campus, **your teacher is required to report** this information to the campus Office of Sexual Assault & Violence Prevention or the Office of Equal Opportunity.

If you want to talk in confidence to someone about an experience of sexual discrimination, please contact these resources:

For *confidential resources on campus*: **Counseling Center: 207-581-1392** or **Cutler Health Center: at 207-581-4000**.

For *confidential resources off campus*: **Rape Response Services: 1-800-310-0000** or **Spruce Run: 1-800-863-9909**.

Other resources: The resources listed below can offer support but may have to report the incident to others who can help:

For *support services on campus*: **Office of Sexual Assault & Violence Prevention: 207-581-1406**, **Office of Community Standards: 207-581-1409**, **University of Maine Police: 207-581-4040 or 911**. Or see the OSAVP website for a complete list of services at <http://www.umaine.edu/osavp/>



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

Graduate course proposals, modifications, or eliminations must be submitted to the Graduate School no later than the 3rd of each month. Please refer to the Graduate School website for the Curriculum Committee meetings schedule. Electronic signatures and submission is required.

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT School of Policy and International Affairs

COURSE DESIGNATOR SPI COURSE NUMBER 576 EFFECTIVE SEMESTER Fall 2021

COURSE TITLE The U.S. Intelligence Community and National Security

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

James Settele

Digitally signed by James Settele
Date: 2020.11.13 14:56:16 -05'00'

College(s) Curriculum Committee Chair(s) (if applicable)

College Dean(s)

Graduate School (sign and date)

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 1 (FOR NEW COURSE PROPOSALS)

Proposed Catalog Description (include designator, number, title, prerequisites, credit hours):

SPI 576, The U.S. Intelligence Community and National Security
Prerequisites: SPIA student or permission of instructor
Credit Hours: 3
Description: This seminar provides a graduate level introduction to the organization and the mission of the different parts of the Intelligence Community (IC), the IC's interaction with the Executive Branch, and the historical development of U.S. intelligence agencies. Students will examine the different kinds of intelligence, how it is collected and classified, and especially the role it plays in formulating foreign and defense policy.

Components (type of course/used by Student Records for MaineStreet) – Multiple selections are possible for courses with multiple non-graded components:

- Applied Music Clinical Field Experience/Internship Research Studio
 Laboratory Lecture/Seminar Recitation Independent Study Thesis

Text(s) planned for use:

See attached syllabus.
Olson, James. Fair Play. Potomac Books, 2006.
Lowenthal, Mark. Intelligence: From Secrets to Policy. Sage Publications, 2015.
Bamford, James. The Shadow Factory. Anchor Books, 2009.

Course Instructor (include name, position, teaching load):

Kenneth Hillas, Lecturer I, part-time faculty

Reason for new course:

This course supplements the offerings for those enrolled in the MA Global Policy program, particularly those following the International Security & Foreign Policy track. It is being taught for the second time in Spring 2021. It was previously offered under a section of SPI 590 - Advanced Topics in Policy and International Affairs.

Does the course addition require additional department or institutional facilities, support and/or resources, e.g. new lab facilities, computer support and services, staffing (including graduate teaching assistants), or library subscriptions and resources?

- No. The department will not request additional resources for this course.
 Yes. Please list additional resources required and note how they will be funded or supported.

What other departments/programs are affected (e.g. course overlap, prerequisites)? Have affected departments/programs been consulted? Any concerns expressed? Please explain.

None

How often will this course be offered? Will offering this course result in overload salary payments, either through the college or CED, either to the instructor of this course or to anyone else as a result of rearranging teaching assignments?

This course will be typically offered every other spring. Funds from SPIA's endowment will be used to pay for the part-time instructor salary.

SPI 590
The U.S. Intelligence Community and National Security
Spring 2021

Course Description

Students will examine the organization and the mission of the different parts of the Intelligence Community (IC), the IC's interaction with the Executive Branch, and the historical development of U.S. intelligence agencies. They will examine the different kinds of intelligence, how it is collected and classified, and especially the role it plays in formulating foreign and defense policy. Particular attention is given to Congressional oversight, budgeting for the two principal intelligence programs (NIP and MIP), ethical and legal guidelines that apply to intelligence operations, and the role of judicial review/approval (FISA Court). Case studies of covert actions from recently declassified documents will also be studied. Technological innovations and the emerging field of cyber intelligence will be examined, as well as future challenges, such as the use of Outer Space for intelligence collection. Counter-intelligence and the threat from hostile intelligence services is also a focus, along with the cooperative arrangements with allied intelligence services, especially the so-called "Five Eyes" group. Much of the seminar readings are primary source materials. Prerequisites: SPIA student or permission of instructor

Credit Hours: 3

The course meets Wednesdays from 12:00pm to 2:50pm in 201 Shibles Hall, and is designed for aspiring foreign policy/national security professionals as well as those with a general interest in the U.S. Intelligence Community. Undergraduate seniors with relevant preparation may enroll with permission of the instructor.

Students should have a general knowledge of world affairs and an understanding of the U.S. Government. The course is conducted as a seminar, involving class discussions and debates. To help students prepare for each week's seminar, the professor will post a variety of questions on the course's Brightspace Discussion page, to which each student must provide at least two responses. On occasion, guest speakers will talk to the class via skype.

Housekeeping

Prof Hillas' office: 227 North Stevens, across the hall from the SPIA office. Office hours are: Wednesday 11am to 12pm, or by appointment.

Email: kenneth.hillas@maine.edu

Learning Objectives:

Students will gain an understanding of the historical development of U.S. intelligence agencies and how they interact with one another and other parts of the federal government, including the Executive Branch, Congress, and the Judiciary. In addition, they will learn how intelligence is used to formulate national security policy. Students will translate concepts, information and

knowledge from the seminar into analytical assessments of case studies and make recommendations to policymakers based on their findings.

Texts and materials

Fair Play by James Olson, Potomac Books, 2006

Intelligence: From Secrets to Policy, by Mark Lowenthal, Sage Publications, 2015

Center for the Study of Intelligence, CIA website

The Shadow Factory, by James Bamford, Anchor Books July 2009 On reserve in Fogler Library

Assignments and Grades

Participation in seminar discussion, including weekly responses to questions posted by the professor on Brightspace -- 25% of course grade.

Classroom Presentation on reading topics -- 25%

Analytical Paper max of 4 pages, double spaced - first draft due Oct 16; final version on Oct 30) -- 25%

Final Conversation -- 25%

COURSE Requirements:

| | |
|------------------------------|-----|
| Attendance and Participation | 25% |
| Classroom Presentation | 25% |
| Analytical Paper | 25% |
| Final Conversation | 25% |

| | |
|--------------|-------------|
| TOTAL | 100% |
|--------------|-------------|

Course policies

Each student is expected to participate in weekly seminar discussion, which includes answering on Brightspace at least two of the weekly questions posted by the professor.

Sept 4 - Historical Context

Readings:

Olson, Preface (pp. ix-x), and pp. 1-31

From DNI.gov website, Historical Overview of the IC
<https://www.dni.gov/index.php/who-we-are/history>

From dni.gov website, Members of the IC
<https://www.dni.gov/index.php/what-we-do/members-of-the-ic#top>

From Federal Register E.O. 12333 (orig. Dec 1981, revised in 2017)
<https://www.archives.gov/federal-register/codification/executive-order/12333.html#1.2>

Bamford, pp. 1-96. On Electronic Reserve in Fogler Library (These chapters relate the story of how the perpetrators of the 9/11 attack were able to elude detection by U.S. intelligence and law enforcement.)

From Global.oup.com website 1947 National Security Act: Title 1 on the CIA and Coordination of National Security
<https://global.oup.com/us/companion.websites/9780195385168/resources/chapter10/nsa/nsa.pdf>

Sept 11 - Impact of 9/11 - Growth in Size and Capabilities of the IC

Readings:

Olson, pp. 33-44

From ODNI website, "The National Intelligence Strategy," issued by Dan Coats, Dir. of National Intelligence, Jan 22, 2019, pp. 3-5; 7-11
https://www.dni.gov/files/ODNI/documents/National_Intelligence_Strategy_2019.pdf

From ODNI website, ODNI History and Current Mission
https://www.dni.gov/files/documents/FACTSHEET_ODNI_History_and_Background_2_24-17.pdf

Patriot Act
<https://www.justice.gov/archive/ll/highlights.htm>

Background on Patriot Act https://en.wikipedia.org/wiki/Patriot_Act

From The Washington Post, "Top Secret America: A Hidden World Growing Beyond Control," by Dana Priest and William Arkin <http://projects.washingtonpost.com/top-secret-america/articles/a-hidden-world-growing-beyond-control/>

9/11 Commission Report, Chapter 13 on the Intelligence Community (July 2004)
http://govinfo.library.unt.edu/911/report/911Report_Ch13.htm

From ODNI website, Fact Sheet on 2004 Intelligence Reform and Terrorist Prevention Act (IRTPA)
https://www.odni.gov/files/documents/FACTSHEET_ODNI_History_and_Background_2_24-17.pdf

Sept 18 - Intelligence, the Presidency, and Foreign/National Security Policy

Readings:

Olson, pp.239-241

Lowenthal, pp. 70-85

Studies in Intelligence, Dec 2017 (Vol 61, no 4), "The Intersection of Intelligence and Policy," by William Tobey, (<https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/csi-studies/studies/vol-61-no-4/libya-nuclear-deal.html>)

Types of Intelligence and IC Missions

<https://www.dni.gov/index.php/what-we-do/what-is-intelligence>

From The Atlantic, Feb 21, 2019, "The Impossible Job of Speaking Truth to Trump," by Kathy Gilsinan <https://www.theatlantic.com/politics/archive/2019/02/dan-coats-tells-trump-truth-what-cost/583198/>

From Foreign Affairs (May/June 2017), "Intelligence and the Presidency: How to Get It Right," by Jami Miscik, pp. 57-64

From The NYT, Feb 19,2020, "Trump Names Richard Grenell as Acting Head of Intelligence," by Julian E. Barnes and Maggie Haberman

Optional Readings:

From Politico, (Dec 19, 2017), "The Secret Backstory of How Obama Let Hezbollah Off the Hook," by Josh Meyer <https://www.politico.com/interactives/2017/obama-hezbollah-drug-trafficking-investigation/>

From Foreign Policy, Dec 21, 2017, "Beijing Builds Its Influence in American Media." by Bethany Allen-Ebrahimian

Sept 25 - The Intelligence Process and the Analyst-Policymaker Relationship

Sherman Kent Center for Intelligence Analysis Occasional Papers: Volume 1, Number 2, "Improving CIA Analytic Performance: Analysts and the Policymaking Process" by Jack Davis. (See - <https://www.cia.gov/library/kent-center-occasional-papers>)

Studies in Intelligence, June 2018, (vol 62, No 2), "Intelligence and Policy: A Case for Thin Walls as by a Veteran of INR, by Bowman Miller (<https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/csi-studies/studies/vol-62-no-2/miller-inr-intel-policy.html>)

From Washington Post, February 9, 2018, "Breaking with Tradition, Trump Skips President's Written Intelligence Report," by Carol D. Leonig, Shane Harris and Greg Jaffe, (https://www.washingtonpost.com/politics/breaking-with-tradition-trump-skips-presidents-written-intelligence-report-for-oral-briefings/2018/02/09/b7ba569e-0c52-11e8-95a5-c396801049ef_story.html?utm_term=.8233e064e2ef)

The Sherman Kent Center for Intelligence Analysis, Occasional Papers: Volume 1, Number 1, Sept 2002, "Improving CIA Analytic Performance: Strategic Warning," by Jack Davis,

<https://www.cia.gov/library/kent-center-occasional-papers/vol1no1.htm>

Global Trends: Paradox of Progress, Chapters on "*Future Summarized*," "*The Maps of the Future*" and "*Trends Transforming the Global Landscape*"

<https://www.dni.gov/index.php/global-trends/the-future-summarized>

From The Washington Examiner, Feb 6, 2020, "CIA Director Rattles Spy Predecessors with State of the Union Appearance," by Caitlin Yilek

Optional Readings:

Studies in Intelligence, Vol 60, No 4, "How Good Is Your Batting Average? Early IC Efforts to Assess the Accuracy of Estimates," by Jim Marchio

Oct 2 - Intelligence Collection and Covert Action

Readings:

Lowenthal, pp. 87-148; 229-251

From [CIA website](#), [National Security Decision Directive 286](#) (Oct 1987), Covert Action Policy Approval and Coordination Procedures <https://fas.org/irp/offdocs/nsdd286.htm>

From Lawfare blog, July 17, 2019, "What Does Collection Mean? Discretion and Confusion in the Intelligence Community," by Diana Lee and Paulina Perlin <https://www.lawfareblog.com/what-does-collection-mean-discretion-and-confusion-intelligence-community>

From [The Shadow Factory: The Ultra-Secret NSA from 9/11 to Eavesdropping on America](#), by James Bamford, pp. 341-345

From the [National Security Archive](#), Feb 7, 2019, "[What the CIA Tells Congress \(or Doesn't\) about Covert Operations: The Barr/Cheney/Bush Turning Point](#)," by John Prados and Arturo Jimenez-Bacardi

Three Case Studies - [From Foreign Affairs](#), Vol 93, No. 4, © copyright Council on Foreign Relations:

- 1) "What Really Happened in Iran: The CIA, the Ouster of Mossadeq and the Restoration of the Shah," by Ray Tayek, pp. 2-13
- 2) "What Really Happened in Congo: The CIA the Murder of Lumumba, and the Rise of Mobutu," by Stephen Weissman, pp 14-25
- 3) "What Really Happened in Chile: The CIA, the Coup Against Allende and the Rise of Pinochet," by Jack Devine, pp. 26-35

Oct 9 - Judicial Oversight: FISA, Court Challenges, Protect America Act

From ODNI, [Statistical Transparency Report](#) Regarding the Use of National Security Authorities (calendar year 2018), pp. 4-12

From The FBI, Dec 20, 2019, [Review of Four FISA Applications and Other Aspects of the FBI's Crossfire Hurricane Investigation](#)

From NYT, Sept 5, 2020, "[Court Approves Warrantless Surveillance Rules while Scolding FBI](#)," by Charlie Savage

From Cato Institute, "[The Need for Judicial Oversight of Domestic Intelligence Gathering](https://www.cato.org/blog/need-judicial-oversight-domestic-intelligence-gathering)," by Timothy Lee, Jan 29, 2008, (acquired March 10, 2018)
<https://www.cato.org/blog/need-judicial-oversight-domestic-intelligence-gathering>

From [LawFare Blog](https://www.lawfareblog.com/summary-fisa-amendments-reauthorization-act-2017), (Jan 18, 2018), "[Summary: The FISA Amendments Reauthorization Act of 2017](https://www.lawfareblog.com/summary-fisa-amendments-reauthorization-act-2017)," by Emma Kohse
<https://www.lawfareblog.com/summary-fisa-amendments-reauthorization-act-2017>

ADD DOJ IG REPORT ON SURVEILLANCE OF TRUMP CAMPAIGN

Optional Readings:

From [CRS](https://fas.org/sqp/crs/intel/IN10400.pdf), Nov 19, 2015), "[Paris Attacks and 'Going Dark:' Intelligence Related Issues to Consider](https://fas.org/sqp/crs/intel/IN10400.pdf)," by Anne Dougherty Miles, pp. 1-2
<https://fas.org/sqp/crs/intel/IN10400.pdf>

From [The Shadow Factory: The Ultra-Secret NSA from 9/11 to Eavesdropping on America](https://www.shadowfactory.com/), by James Bamford, pp. 271-308

Oct 16 - Congressional Oversight and Budgeting (Video with Rep. Mac Thornberry)

From [CRS](https://fas.org/sqp/crs/intel/R44681.pdf), "[Intelligence Community Programs, Management, and Enduring Issues](https://fas.org/sqp/crs/intel/R44681.pdf)," Nov 8, 2016, by Anne Daugherty Miles, pp. 38-46
<https://fas.org/sqp/crs/intel/R44681.pdf>

From [CRS](https://fas.org/sqp/crs/intel/R45175.pdf), May 15, 2018, "[Covert Action and Clandestine Activities of the Intelligence Community](https://fas.org/sqp/crs/intel/R45175.pdf)," by Heidi Peters and Michael DeVine, pp. 1-8
<https://fas.org/sqp/crs/intel/R45175.pdf>

From [CRS](https://fas.org/sqp/crs/intel/R40691.pdf), "[Sensitive Covert Action Notifications: Oversight Options for Congress](https://fas.org/sqp/crs/intel/R40691.pdf)," by Marshall Curtis Erwin, April 10, 2013, pp. 1-7
<https://fas.org/sqp/crs/intel/R40691.pdf>

Senate Select Committee on Intelligence, (December 2014), [Study on CIA Detention and Interrogation Programs](https://www.feinstein.senate.gov/public/index.cfm/senate-intelligence-committee-study-on-cia-detention-and-interrogation-program), Findings and Conclusions, pp. 9-24
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[ICD 112](#), June 29, 2017, on Notifications to Congress
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<https://www.cia.gov/library/readingroom/docs/CIA-RDP95M00249R000801120004-6.pdf>

Oct 23 - *The Gray Area Between Intelligence and Military Special Operations* (DIA, JSOC)

Lowenthal, pp. 127-137;

From CRS, Ann Miles, Nov. 8, 2016, "The Intelligence Community Programs, Management and Enduring Issues," pp.1-6. <https://fas.org/sgp/crs/intel/R44681.pdf>

From WarontheRocks, Explaining the CIA's Critical Role in National Security, Jan 11, 2019, by Derek Grossman, <https://warontherocks.com/2019/01/explaining-the-dias-critical-role-in-national-security/>

From Lawfareblog, DIA Scales Back Expanded Defense Clandestine Service, Nov 5, 2014, by Rober Chesney <https://www.lawfareblog.com/dia-scales-back-plans-expanded-defense-clandestine-servicesort>

Oct 30 - *Technical Intelligence: Big Data, Imagery, OSINT, Signals Intelligence* (NSA NGA, NRO)

From Foreign Policy, (Sept/Oct 2016), "Every Move You Make," by James Bamford, pp. 56-63.

Bamford, pp. 161-199; 311-340 (On electronic reserve, Fogler Library)

About the National Geospatial-Intelligence Agency (Click on the "About" Tab and then access three links on the right side (Hlstory, Leadership and Strategy)

<https://www.nga.mil/About/Pages/Default.aspx>

The National Reconnaissance Office: Who We Are <https://www.nro.gov/About-NRO/The-National-Reconnaissance-Office/Who-We-Are/>

(Make sure to also click on the NRO Facty Sheet at the bottom of the page, as well as the tab on History and Studies so you can peruse some of the links under that heading.)

NRO, What We Do

<https://www.nro.gov/About-NRO/The-National-Reconnaissance-Office/What-We-Do/>

From Foreign Policy, (March/April 2017), The Multibillion Dollar U.S. Spy Agency You Haven't Heard of," by James Bamford

From Foreign Policy, (Jan/Feb 2015), "The Black and White Security Question: How Washington Can Use Surveillance to Save Lives -- not Target Them," by James Bamford

See NRO Video on SPI 590 Blackboard site under "My Media"

Nov 6 - New Frontiers: Cyber and Outer Space

From Foreign Affairs, May/June 2019, "Spies, Lies and Algorithms," by Amy Zegart and Michael Morrell, pp. 85-96

<https://www.foreignaffairs.com/articles/2019-04-16/spies-lies-and-algorithms>

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<https://2009-2017.state.gov/t/isn/5181.htm>

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<https://www.c4isrnet.com/battlefield-tech/space/2019/07/22/4-almost-invisible-threats-to-keep-us-intel-officials-on-edge/#.XTb9xnAolNo.email>

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<https://www.fifthdomain.com/international/2018/12/04/in-rare-speech-mi6-chief-says-cyber-brings-potentially-existential-challenge/>

From FedScoop, Aug 21, 2019, "AI Is Breathing New Life into the Intelligence Community," by Jackson Barnett

<https://www.fedscoop.com/artificial-intelligence-in-the-spying/>

From IFLScience, Aug 1, 2019, "U.S. Intelligence Agency is Developing a Spying Artificial Brain Called Sentient," by Tom Hale

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From Foreign Policy, (Nov/Dec 2016), "Spooks in Space," by James Bamford, pp. 96-97

From Technode.com, Sept 6, 2019, "China Hackers Reverse-Engineered NSA Spy Tools," by Chris Udemans

<https://technode.com/2019/09/06/china-hackers-nsa/>

Bamford, pp. 254-268

Nov 13 - Intelligence-Industrial Complex, Keeping Up and Advancing Technological Innovation in Intelligence Collection/Analysis, Organizational Reform

From In-Q-Tel website (read tabs on “Our History,” Insights and Access,” and “How We Work”
<https://www.iqt.org/>

Bamford, pp. 197-211.

CRS (Aug 18, 2015), “The Intelligence Community and Its Use of Contractors.” by Elaine Halchin, p. 1-20
<https://fas.org/sgp/crs/intel/R44157.pdf>

From Politico, (July 2, 2019) “Spies Fear a Consulting Firm Helped Hobble U.S Intelligence, by Natasha Bertrand and Daniel Lippman, <https://www.politico.com/story/2019/07/02/spies-intelligence-community-mckinsey-1390863>

Nov 20 - Allies and Adversaries: Intelligence Services of Partners and Critical Threat States

Lowenthal, pp. 455-494

Bamford, pp. 212-253

Olson, scenarios 6, 22, 36 — respectively pp. 67-70; 120-123; 168-171

From The NY Times, February 24, 2019, “Putin’s One Weapon: The Intelligence State.” by John Sipher
<https://www.nytimes.com/2019/02/24/opinion/putin-russia-security-services.html?action=click&module=RelatedLinks&pgtype=Article>

From The Washington Post, Feb 11, 2020, “The Intelligence Coup of the Century,” by Greg Miller

From Foreign Policy, (Issue 232/MARCH 2019), The Spies Who Came In From the Continent: How Brexit Could Spell the End of Britain’s Famed Advantage in Intelligence, by Calder Walton
https://go-gale-com.prxy4.ursus.maine.edu/ps/retrieve.do?tabID=T003&resultListType=RESULT_LIST&searchResultsType=SingleTab&searchType=AdvancedSearchForm¤tPosition=11&docId=GALE%7CA586240516&docType=Article&sort=Relevance&contentSegment=ZONE-Exclude-FT&prodId=AONE&contentSet=GALE%7CA586240516&searchId=R3&userGroupName=maine-orono&inPS=true

From The Economist, (Nov 12, 2016), “Special Report on Espionage,” pp. 8-9

From de Volkskrant, Jan 25, 2018, [dutch-agencies-provide-crucial-intel-about-russia-s-interference-in-us-elections](#)

Dec 4 - CounterIntelligence and Defectors

Olson, case 35, pp. 166-168

From The Smithsonian, (Nov 2015), ["Thirty Years Later, We Still Don't Truly Know Who Betrayed These Spies,"](#) by David Wise

From Lawfare blog, Aug 15, 2018, ["Artificial Intelligence - A Counter-Intelligence Perspective: Part I,"](#) by Jim Baker <https://www.lawfareblog.com/artificial-intelligence-counterintelligence-perspective-part-1>

From Lawfare blog, September 5, 2018, ["Artificial Intelligence - A Counter-Intelligence Perspective: Part II,"](#) by Jim Baker <https://www.lawfareblog.com/artificial-intelligence-counterintelligence-perspective-part-ii>

From Department of Justice Inspector General, ["A Review of the FBI's Performance in Detering, Detecting and Investigating the Espionage Activities of Robert Philip Hanssen,"](#) Aug. 14, 2003 <https://oig.justice.gov/special/0308/index.htm>

From The Week, ["What Edward Snowden Didn't Disclose,"](#) May 4, 2014 , <http://theweek.com/articles/447319/what-edward-snowden-didnt-disclose>

From Washington Post, Jan 26, 2018, ["Rick is a Goddamn Russian Spy,"](#) by Ian Shapira <https://www.washingtonpost.com/>

Dec 11 - Ethics and Espionage

Olson, scenarios 2,3, 11, 25, 26, 33, 41, (pp. 49-52; 52-56; 85-87; 131-135; 160-163; 185-190)

Lowenthal, Chapter 13 (pp. 399-422)

From DNI.gov, Intelligence Community Directive (ICD) 191 - Duty to Warn

December 18 - Final Conversation

Notes

Academic Integrity

I have zero tolerance for any instances of cheating on exams, plagiarism on papers, or other academic misconduct. Information on the University of Maine academic integrity policy, and on what constitutes academic misconduct, can be found at:

<http://unmaine.edu/judicialaffairs/academic-integrity/academic-dishonest-policy/>

Expect violations of these rules to result in consequences on the more severe end of the scale.

Academic honesty is very important. It is dishonest to cheat on exams, to copy term papers, to submit papers written by another person, to fake experimental results, or to copy or reword parts of books or articles into your own papers without appropriately citing the source. Students committing or aiding in any of these violations may be given failing grades for an assignment or for an entire course, at the discretion of the instructor. In addition to any academic action taken by an instructor, these violations are also subject to action under the University of Maine Student Conduct Code. The maximum possible sanction under the student conduct code is dismissal from the University. Please see the University of Maine System's Academic Integrity Policy listed in the Board Policy Manual as Policy 314: <https://www.maine.edu/board-of-trustees/policy-manual/section-314/>

Course Schedule Disclaimer (Disruption Clause): In the event of an extended disruption of normal classroom activities (due to COVID-19 or other long-term disruptions), the format for this course may be modified to enable its completion within its programmed time frame. In that event, you will be provided an addendum to the syllabus that will supersede this version.

Inclusiveness

I will make every effort to enable full participation in this course by all students. Students needing special accommodations should contact me as early as possible (within the first three weeks of the semester, or as soon as those needs arise) to discuss how they can be met within the structure of the course. Every effort will be made to maintain the confidentiality of personal information.

If you have a disability for which you may be requesting an accommodation, please contact Student Accessibility Services, 121 East Annex, 581.2319, as early as possible in the term. Students who have already been approved for accommodations by SAS and have a current accommodation letter should meet with me privately as soon as possible.

Observance of Religious Holidays/Events

The University of Maine recognizes that when students are observing significant religious holidays, some may be unable to attend classes or labs, study, take tests, or work on other assignments. If they provide adequate notice (at least one week and longer if at all possible), these students are allowed to make up course requirements as long as this effort does not create an unreasonable burden upon the instructor, department or University. At the discretion of the instructor, such coursework could be due before or after the examination or assignment. No adverse or prejudicial effects shall result to a student's grade for the examination, study, or course requirement on the day of religious observance. The student shall not be marked absent from the class due to observing a significant religious holiday. In the case of an internship or clinical, students should refer to the applicable policy in place by the employer or site.

Sexual Discrimination Reporting

The University of Maine is committed to making campus a safe place for students. Because of this commitment, if you tell a teacher about an experience of sexual assault, sexual harassment, stalking, relationship abuse (dating violence and domestic violence), sexual misconduct or any

form of gender discrimination involving members of the campus, your teacher is required to report this information to the campus Office of Sexual Assault & Violence Prevention or the Office of Equal Opportunity.

If you want to talk in confidence to someone about an experience of sexual discrimination, please contact these resources:

- For confidential resources on campus: Counseling Center: 207-581-1392 or Cutler Health Center: at 207-581-4000.
- For confidential resources off campus: Rape Response Services: 1-800-310-0000 or Partners for Peace: 1-800-863-9909.

Other resources: The resources listed below can offer support but may have to report the incident to others who can help:

For support services on campus: Office of Sexual Assault & Violence Prevention: 207-581-1406, Office of Community Standards: 207-581-1409, University of Maine Police: 207-581-4040 or 911. Or see the OSAVP website for a complete list of services at <http://www.umaine.edu/osavp/>



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

Graduate course proposals, modifications, or eliminations must be submitted to the Graduate School no later than the 3rd of each month. Please refer to the Graduate School website for the Curriculum Committee meetings schedule. Electronic signatures and submission is required.

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT Electrical and Computer Engineering

COURSE DESIGNATOR ECE COURSE NUMBER 585 EFFECTIVE SEMESTER Spring 2021

COURSE TITLE Fundamentals of Wireless Communication

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

David J. Neivandt Digitally signed by David J. Neivandt
Date: 2020.11.19 12:16:17 -05'00'

College(s) Curriculum Committee Chair(s) (if applicable)

Mohamd Musavi Digitally signed by Mohamd Musavi
DN: cn=Mohamd Musavi, o=University of Maine, ou=College of Engineering, email=musavi@maine.edu, c=US
Date: 2020.11.19 20:23:34 -05'00'

College Dean(s)

 11/30/20

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

ECE 585 - Fundamentals of Wireless Communication
Aims to present the modern wireless communication concepts in a coherent and unified manner and to illustrate the concepts in the broader context of the wireless systems on which they have been applied. Recent wireless standards will be studied in depth and emphasized through a course project.

Prerequisites & Notes

CHB 350 or ECE 383 or ECE 515 or MAT 332 or instructor permission.

Credits: 3

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

ECE 585 - Fundamentals of Wireless Communication
Aims to present the modern wireless communication concepts in a coherent and unified manner and to illustrate the concepts in the broader context of the wireless systems on which they have been applied. Recent wireless standards will be studied in depth and emphasized through a course project.

Prerequisites & Notes

ECE 484 or ECE 515 or ECE 316 or instructor's permission.

Credits: 3

Reason for course modification:

ECE 383 course does not exist anymore and is replaced by ECE 484.

ECE 316 is a more appropriate prereq than currently listed MAT 332 and CHB 350.

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

Graduate course proposals, modifications, or eliminations must be submitted to the Graduate School no later than the 3rd of each month. Please refer to the Graduate School website for the Curriculum Committee meetings schedule. Electronic signatures and submission is required.

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT O-GSBS

COURSE DESIGNATOR BMS COURSE NUMBER 605 EFFECTIVE SEMESTER Spring 2021

COURSE TITLE Responsible Conduct of Research in Biomedical Science and Engineering

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

Digitally signed by Clarissa Henry
Date: 2021.01.28 12:57:50 -05'00'

College(s) Curriculum Committee Chair(s) [if applicable]

GSBSE reports to Graduate School

College Dean(s)

28 January 2021

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

BMS 605-5000 (Class #: 70551)
Title: Professionalism and Responsible Conduct of Research in Biomedical Science & Engineering
Prerequisites: None
Credit Hours: 2

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

BMS 605-5000 (Class #: 70551)
Title: Professionalism and Responsible Conduct of Research in Biomedical Science & Engineering
Prerequisites: None
Credit Hours: 1-3

Reason for course modification:

Variable credit needed based on content and scope of the course.

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

CURRICULUM COMMITTEE REPORT

The Curriculum Committee met on February 9th, 2021 and, is recommending the following courses to the Graduate Board for approval at its February 25th meeting.

New Courses:

ESC 555 Engineering Design Process for K-12 Educators

SED 625 Sp. Education Internship for Maine's Alternative Certification and Mentoring

Modifications:

CHY 661 Topics in Advanced Inorganic Chemistry

EHD 571 Qualitative Research: Theory, Design and Practice

EHD 572 Advanced Qualitative Research

SED 513 Early Childhood/Special Education Practicum

SED 520 Law and Policy Affecting Individuals with Disabilities

SED 532 Behavior management and Intervention

SED 544 Mathematical Methods in Special Education

SED 545 Intervention for Reading Difficulties

SED 553 Assessment in Special Education I

SED 556 Assessment of Students with Autism Spectrum Disorders and Disabilities



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

Graduate course proposals, modifications, or eliminations must be submitted to the Graduate School no later than the 3rd of each month. Please refer to the Graduate School website for the Curriculum Committee meetings schedule. Electronic signatures and submission is required.

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT School of Learning and Teaching

COURSE DESIGNATOR ESC COURSE NUMBER 555 EFFECTIVE SEMESTER Fall 2021

COURSE TITLE Engineering Design Process for K-12 Educators

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

 12/18/2020

College(s) Curriculum Committee Chair(s) [if applicable]

 12/23/2020

College Dean(s)

 1/22/21

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 1 (FOR NEW COURSE PROPOSALS)

Proposed Catalog Description (include designator, number, title, prerequisites, credit hours):

ESC555: Engineering Design Process for K-12 Educators. Prerequisites: Permission of Instructor, 3 credits
This course will provide students an opportunity to learn insights about engineering concepts and practices while focusing on their implications for K-12 learning settings. These learning setting can be formal classrooms and informal learning environments such as museums, science, technology, or innovation centers. While deepening our understanding of integrating engineering to K-12 learning settings, we will utilize successful engineering activities to look at how teachers and students can engage in Engineering Design Process (EDP). We will question how teachers and K-12 students conceptualize engineering and the role of engineers and how K-12 students construct engineering identities while engaged in EDP. Finally, this course will draw from national policy documents to discuss how understanding of EDP can enhance K-12 students' learning of other STEM subject areas of science, mathematics, and technology.

Course Note: Course may have some synchronous meetings.

Components (type of course/used by Student Records for MaineStreet) – *Multiple selections are possible for courses with multiple non-graded components:*

- Applied Music Clinical Field Experience/Internship Research Studio
 Laboratory Lecture/Seminar Recitation Independent Study Thesis

Text(s) planned for use:

1. Helen Meyer, Anant R. Kukreti, Debora Liberi, and Julie Steimle (2020). *Creating Engineering Design Challenges: Success Stories from Teachers*. NSTA Press.
2. National Academies of Sciences, Engineering, and Medicine. (2019). *Science and Engineering for Grades 6–12: Investigation and Design at the Center*. Washington, DC: The National Academies Press. doi: <https://doi.org/10.17226/25216>

Course Instructor (include name, position, teaching load):

Asli Sezen-Barrie, Associate Professor, 50% (2/2) teaching load

Reason for new course:

This course is designed to meet the need for practicing teachers to learn about how to integrate engineering into their science courses to meet the requirements of the most recent science education standards (Next Generation Science Standards, 2013). The course will also serve as an elective for graduate students in the Curriculum, Assessment, and Instruction program to improve their practices and understanding of research and policy in relation to engineering education.

Does the course addition require additional department or institutional facilities, support and/or resources, e.g. new lab facilities, computer support and services, staffing (including graduate teaching assistants), or library subscriptions and resources?

- No. The department will not request additional resources for this course.
 Yes. Please list additional resources required and note how they will be funded or supported.

What other departments/programs are affected (e.g. course overlap, prerequisites)? Have affected departments/programs been consulted? Any concerns expressed? Please explain.

How often will this course be offered? Will offering this course result in overload salary payments, either through the college or CED, either to the instructor of this course or to anyone else as a result of rearranging teaching assignments?

The course will be offered once in every two years. It will not result in overload of salary payments.



Mission Statement: Drawing on a rich tradition of excellence, the College of Education and Human Development at Maine's flagship university is committed to leading innovation in Maine's PK-12 schools, higher education institutions, and agencies that support academic, cognitive, physical, social and emotional development. We promote effective teaching and learning, identify critical issues, conduct research, and disseminate findings. Collaboration with external partners and experts across the University of Maine, we prepare our graduates to engage in ethical conduct, reflective practice, meaningful inquiry, and data-driven decision making in order to meet the increasingly diverse needs of our state and the world in which we live.

ESC555 – Engineering Design Process for K-12 Educators

Instructor: Asli Sezen-Barrie, Ph.D.
Address: 331 Shibles Hall- Mailbox
E-mail: asli.sezenbarrie@maine.edu
Phone: 207 581 2413

Credits: 3
Primary Delivery Format: Online
Class Location: Online (BrightSpace)
Office Hours: By appointment
IT Help Center: <https://umaine.edu/it/who-to-contact/>

Communication with Instructor: Students are encouraged to contact the instructor with their individual questions or concerns via email. Students may request to meet with the instructor by appointment, in person or via Zoom platform.

INSTRUCTIONAL MATERIALS AND METHODS

Required Textbook

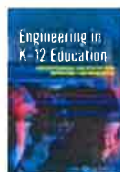
1. Helen Meyer, Anant R. Kukreti, Debora Liberi, and Julie Steimle (2020). *Creating Engineering Design Challenges: Success Stories from Teachers*. NSTA Press.

Optional Textbook

1. National Academies of Sciences, Engineering, and Medicine. (2019). *Science and Engineering for Grades 6–12: Investigation and Design at the Center*. Washington, DC: The National Academies Press. doi: <https://doi.org/10.17226/25216>
2. National Academy of Engineering and National Research Council. (2009). *Engineering in K-12 Education: Understanding the Status and Improving the Prospects*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/12635>

Other Required Resources:

1. Your UMaine account for BrightSpace, Kaltura, and Zoom: We will be utilizing all these three platforms for our course and they are all supported by UMaine. If you need support on learning how to use these platforms or face challenges, please go to the <https://online.umaine.edu/tech-support/> This link provides self-guided help, tutorial videos as well as contact information of the support team
2. Your UMaine GMail account: available at <https://gmail.maine.edu> You will need this account to be able to share documents with classmates and me through Google Docs
3. Articles, podcasts and materials that will be made available on BrightSpace



COURSE OVERVIEW AND GOALS

Course Overview

This course will provide students an opportunity to learn insights about engineering concepts and practices while focusing on their implications for K-12 learning settings. These learning setting can be formal classrooms and informal learning environments such as museums, science, technology, or innovation centers. While deepening our understanding of integrating engineering to K-12 learning settings, we will utilize successful engineering activities to look at how teachers and students can engage in Engineering Design Process (EDP). We will question how teachers and K-12 students conceptualize engineering and the role of engineers and how K-12 students construct engineering identities while engaged in EDP. Finally, this course will draw from national policy documents to discuss how understanding of EDP can enhance K-12 students' learning of other STEM subject areas of science, mathematics, and technology.

Course Goals

- ✓ Explain what engineering is and why we teach engineering
- ✓ Examine Effective Engineering Design Process Implementations from Teacher Success Stories
- ✓ Experience and Analyze Engineering Education Units
- ✓ Discuss assessment methods for Engineering Design Process (EDP)
- ✓ Make sense of how engineering identity develops through life stories
- ✓ Reflect on equity practices in teaching engineering
- ✓ Improve familiarity with engineering education resources available to educators

PROFESSIONAL LEARNING COMMUNITIES (PLCs)

What are PLCs and why do

The term *professional learning community* has become quite commonplace in education circles. The term describes a collegial group who are united in their commitment to an outcome. In the case of education, the commitment would be to student learning.

The community engages in a variety of activities including sharing a vision, working, and learning collaboratively, visiting, and observing other classrooms, and participating in shared decision making. The benefits of professional learning community to educators and students include reduced isolation of teachers, better informed and committed teachers, and academic gains for students.

Retrieved: <http://www.dpi.state.nc.us/profdev/resources/proflearn/>

PLCs for Our Class

- ✓ In this class, we will work as a PLC and get to know each other, our intentions for teaching and researching engineering for education. We will share our ideas through discussion boards, panels on zoom, and recorded presentations. We will together reflect on what we know on engineering, how engineers work, and why is it crucial for future generations to learn about engineering design.

ASSIGNMENTS AND GRADING

| | |
|--|-----------|
| All assignments must be submitted to BrightSpace and will be accepted as Microsoft Word docs <i>only</i>. For every day the assignment is late after due date, 25% of the maximum will be deducted from the assignment score. No assignments will be accepted once they are three or more days late. | |
| #1: Brief Tasks: Periodically, you will complete a brief task to help build a stronger community in our classroom and to make sense of basic activities. | 5 points |
| #2: Engineering Education Story Recording: For this assignment, you will analyze a video of a teacher who describes his experiences of teaching engineering and then you will record a short video (~5mins) about your experiences about engineering and engineering education. | 6 points |
| #3: Discussion Forum (Reading Reflections, Analysis of Videos, and Interactive Activities): You will participate in discussion forums by posting your reflections on assigned readings and videos that show examples of engineering activities in K-12 classrooms. Your reflections should respond to the questions that are posted for the readings and might relate your experiences to the concepts and strategies discussed in the readings. Most of the discussion forums will have a collaborative nature, and in that, you will also be responsible for leaving threads to other students' posts (at least 2 different classmates). To respond to discussion forums: <ol style="list-style-type: none"> 1. You will need to submit your individual response by creating a thread. 2. Once your thread is submitted, you will be able to see your classmates' threads 3. You will then read and leave response to at least 2 other classmates' thread | 25 points |
| #4: Experience and Analyze Two Engineering Units: You will go through and analyze two engineering units prepared by a team of experts. You will integrate ideas from the readings and will comment on how the ideas in the units can help with planning of your lessons in the future. | 24 points |
| #5: Interview with an Engineer: To help our students develop a sense of engineering and understand what engineers do, it is important to have a closer look at engineers' life stories. You will interview a professional engineer and record the interview. The interview can be done via zoom. Our goal with this assignment is to make sense of their life stories and reveal their identities on the way to becoming an engineer. Your instructor will provide an interview protocol for this assessment. Once you complete the interview, you will write a 5-page report that includes quotes from your interview. If you don't know an engineer, contact your instructor. | 15 points |
| #6: Professional Learning Communities: For this assignment, you will participate in two zoom meeting with several classmates. The date and time will be arranged by your instructor via quick survey on your available times. In this panel, you will each present how your views of engineering change after your interviews with engineers and what implications these ideas have for planning engineering lessons. You can share excerpts or videos during the Zoom meeting. You are also expected to raise 1 or 2 questions for your colleagues. The meeting will automatically be recorded on Zoom Cloud. | 15 points |
| #7: Engineering Education Resource Fair: For this assignment, you will each prepare a presentation on a low cost or free resource for designing engineering activities. The presentation will provide information about 1) the background of the resource, 2) how to access the resource, 3) example materials, 4) benefits of the resource, and 4) weaknesses or challenges to using the resource. You will then record your presentation on Kaltura and reply on two other presentation posted on BrightSpace by your classmates. | 10 points |
| #8: Online Course Evaluation: Access the online course evaluations here: http://www.maine.edu/crseval . You will enter your UMS ID and password (<i>identical to the login information used to access your MaineStreet & BrightSpace accounts.</i>) This information is used solely to make sure that you have access to the correct course(s), and that only one form per student, per class, is completed. Please contact University College Learning Services at 1-800-868-7000 with questions. | |

Course Grades

- ✓ For an A: 94% or higher. Work at the "A" level reflects a high level of scholarly engagement with the course material, evidence of deeper learning, exceptional quality in work, and effort beyond the minimum course requirements.
- ✓ For a B: 84% or higher. Work at the "B" level reflects satisfactory understanding of the material and work quality, and completion of all course requirements.
- ✓ I will assign grades of + or - in cases where achievement levels are near the designated cut points.

UNIVERSITY POLICIES

Academic Honesty:

Academic honesty is very important. It is dishonest to cheat on exams, to copy term papers, to submit papers written by another person, to fake experimental results, or to copy or reword parts of books or articles into your own papers without appropriately citing the source. Students committing or aiding in any of these violations may be given failing grades for an assignment or for an entire course, at the discretion of the instructor. In addition to any academic action taken by an instructor, these violations are also subject to action under the University of Maine Student Conduct Code. The maximum possible sanction under the student conduct code is dismissal from the University. (Last copied July 2020)

✓ For authoritative source see: <https://umaine.edu/citl/teaching-resources-2/required-syllabus-information/#Academic>

Students Accessibility Services Statement

If you have a disability for which you may be requesting an accommodation, please contact Student Accessibility Services, 121 East Annex, 581.2319, as early as possible in the term. Students who have already been approved for accommodations by SAS and have a current accommodation letter should meet with me (the instructor of the course) privately as soon as possible. (Last copied July 2020)

✓ For authoritative source see: <https://umaine.edu/citl/teaching-resources-2/required-syllabus-information/#Accessibility>

Course Schedule Disclaimer (disruption clause):

In the event of an extended disruption of normal classroom activities (due to COVID-19 or other long-term disruptions), the format for this course may be modified to enable its completion within its programmed time frame. In that event, you will be provided an addendum to the syllabus that will supersede this version. (Last copied July 2020)

For authoritative source see: <https://umaine.edu/citl/teaching-resources-2/required-syllabus-information/#Schedule>

Observance of Religious Holidays/Events:

The University of Maine recognizes that when students are observing significant religious holidays, some may be unable to attend classes or labs, study, take tests, or work on other assignments. If they provide adequate notice (at least one week and longer if at all possible), these students are allowed to make up course requirements as long as this effort does not create an unreasonable burden upon the instructor, department or University. At the discretion of the instructor, such coursework could be due before or after the examination or assignment. No adverse or prejudicial effects shall result to a student's grade for the examination, study, or course requirement on the day of religious observance. The student shall not be marked absent from the class due to observing a significant religious holiday. In the case of an internship or clinical, students should refer to the applicable policy in place by the employer or site. (Last copied July 2020)

For authoritative source see: <https://umaine.edu/citl/teaching-resources-2/required-syllabus-information/#Observance>

UMaine Student Conduct:

All students are expected to conform to numerous conduct policies and regulations as set forth in the [UMaine Student Handbook](#).

✓ For authoritative source see: <https://umaine.edu/studentlife/student-handbook/>

Classroom Civility:

Civility should be conveyed to all others through courteous expression, politeness, esteem and regard for others, and a general respect for others, regardless of differences from self.

Inclusive and Non-Sexist Language:

The use of sexist language is highly discouraged in this course. Language that reinforces sexism can arise from imprecise word choices that may be interpreted as biased, discriminatory, or demeaning even if they are not intended to be. Accordingly, communications in this course, whether delivered orally or in writing, shall be free of sexist language.

For UMaine authoritative source see p. 53 at: <https://umaine.edu/studentlife/student-handbook/>

Sexual Violence Policy:**Sexual Discrimination Reporting**

The University of Maine is committed to making campus a safe place for students. Because of this commitment, if you tell a teacher about an experience of **sexual assault, sexual harassment, stalking, relationship abuse (dating violence and domestic violence), sexual misconduct or any form of gender discrimination** involving members of the campus, **your teacher is required to report** this information to Title IX Student Services or the Office of Equal Opportunity.

If you want to talk in confidence to someone about an experience of sexual discrimination, please contact these resources:

- ✓ For *confidential resources on campus*: **Counseling Center: 207-581-1392** or **Cutler Health Center: at 207-581-4000**.
- ✓ For *confidential resources off campus*: **Rape Response Services: 1-800-871-7741** or **Partners for Peace: 1-800-863-9909**.

Other resources: The resources listed below can offer support but may have to report the incident to others who can help:

- ✓ For *support services on campus*: **Title IX Student Services: 207-581-1406, Office of Community Standards: 207-581-1409, University of Maine Police: 207-581-4040 or 911**. Or [see the OSAVP website for a complete list of services](#). (Last copied July 2020)
- ✓ For authoritative source, see https://umaine.edu/citl/teaching-resources-2/required-syllabus-information/#Reporting_Short

Copyright Notice for Materials Accessible through this Course Website

Most materials accessible through this site, such as linked articles, should be assumed to be copyright protected.

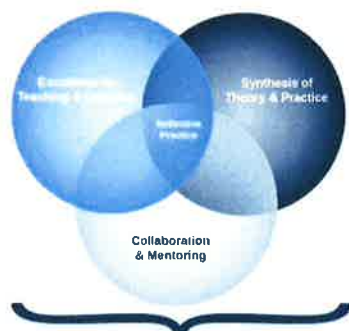
1. Unless the “fair use” provisions of copyright law apply or language is contained in a work permitting its use, permission should be obtained from the copyright holder for copying the work.
2. Use of the instructor prepared web pages and the slides affiliated with each lecture on the syllabus may be assumed to be controlled by the University of Maine System Broad Application Copyleft License (proposed, current, or future) or through any similar open access license that may be posted at the bottom of each web page.
3. All class videos (lectures) should be assumed to be copyright protected in accordance with the University of Maine System Statement of Policy Governing Patents and Copyrights. (See <https://www.maine.edu/board-of-trustees/policy-manual/section-209/> with full policy last downloaded July 2020 at <https://www.maine.edu/board-of-trustees/wp-content/uploads/sites/12/2019/12/intprop.pdf?0fa197>)

Contingency Plans in the Event of an Epidemic

In the event of an influenza or similar epidemic that precludes the ability to meet in face-to-face sessions, assume that the instructor will either (1) host the course on the usual URL for the class at the normal time and everyone will participate at a distance or (2) record a video of the lecture the instructor would have otherwise presented in person and post it for viewing by downloading from the syllabus and/or from a web streaming video site. All other reading and module assignments should proceed as usual. If you yourself become sick, simply inform the instructor and the instructor will arrange appropriate extensions based on your particular circumstances.

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT GUIDELINES**Conceptual Framework**

The University of Maine’s College of Education and Human Development (COEHD) seeks to prepare professionals who value and demonstrate reflective practice, a dedication to teaching and learning, an understanding of the synthesis of theory and practice, and an awareness of the value of collaborating and mentoring. Embedded in all of our work within COEHD we seek to respect diversity, honor difference, and promote social justice. For further information on our college’s mission and conceptual framework, please see <http://umaine.edu/edhd/academic-programs/college-conceptual-framework/>

**OUTCOME:**

Educational practices that are *equitable, meaningful, and relevant*

Reflective Practice serves as the centerpiece of the conceptual framework and one of the COEHD's Core Principles for teacher preparation at the University of Maine. The reflective teacher is one who seriously acknowledges the complexity of the classroom learning environment and seeks to understand how certain interrelated variables in their particular classroom setting affects student learning. The reflective teacher does this by analyzing and evaluating the effect specific curriculum, instruction, and assessment practices will have on their students. Through such analysis the teacher will be able to create a learning environment that is most appropriate for their group of students.

Commitment

- To children and adolescents, developmentally responsive teaching, evidence-based instructional methods, social equity, and challenging curriculum
- Displays enthusiasm for learning and teaching
- Demonstrates ongoing commitment to working with students from diverse backgrounds, ethnicities, and cultures

Responsible Behavior

- Regular class attendance
- Punctuality for classes
- Assignments completed on time
- Use of technology during class for topic-related purposes only
- Turns off cell phones during class
- Uses appropriate language (not profanity or inappropriate gestures)
- Identifies and initiates efforts to facilitate own learning
- Responds to novel problems and situations in creative and responsible ways

Professional Communication/Collaboration

- Cooperates with peers
- Receptive to feedback
- Articulates perspectives clearly
- Differentiates between factual information and personal opinion
- Seeks input from peers and instructors
- Listens to the perspectives of others
- Responds to others (including those with differing perspectives) in a manner that is nonthreatening and promotes dialogue.
- Communicates in a positive manner that promotes collaboration with peers as well as instructor
- Uses Standard English in all communication (oral or written)
- Writes legibly and spells correctly

Confidentiality

- Is discrete in sharing personal information with or about students, parents, and colleagues
- Adheres to professional standards and legal statutes pertaining to confidentiality

Professional Appearance

- Maintains appropriate dress consistent with a professional educational environment.
- Maintains acceptable hygiene that does not distract from the educational experience of peers and/or social interactions with peers.

Integrity/Honesty (The College of Education and Human Development adheres to the University of Maine's Policy on Academic Honesty and Dishonesty.)

- Engages in behaviors and actions that reflect positively on the teaching profession.
- Seeks constructive resolutions to problems.
- Completes his or her own work (does not cheat, plagiarize, lie, etc.)
- Shows respect for self and others

Sample Schedule / ESC555 – Engineering Design Process for K-12 Educators

This schedule is tentative and may change in response to students' feedback and extreme weather events. Please make sure to listen to [weekly announcements](#) on BrightSpace for any changes or additional resources.

| DATES | TOPICS | ASSESSMENTS & DUE DATES |
|--------|--|---|
| Week 1 | Introductions – Quick Survey Review of Syllabus & Schedule Why Engineering Education at K-12 Level? | Brief Task #1: Introductions Quick Survey <i>Due ____ on BrightSpace</i> Brief Task #2: Syllabus Scavenger Hunt <i>Due ____ on BrightSpace</i> My Engineering Education Story Recoding <i>Due ____ on BrightSpace</i> |
| Week 2 | Engineering Design Challenges in Secondary Science Classrooms <u>Reading:</u> Chapter 4: “Setting the Stage: Create Hooks to Secure Student Buy In” by Cooper et al. (2020) <u>Reading:</u> Chapter 5: “Focusing on the Engineering Design Process” by Stewart et al. (2020) | Discussion Forum 1 <ul style="list-style-type: none"> • Your personal thread in response to the questions in the discussion forum <i>Due ____ on BrightSpace</i> • Reply to two different threads <i>Due ____ on BrightSpace</i> |
| Week 3 | Engineering Design Process Bridge Design Activity – Revisiting a Classic Engineering Activity | Brief Task #3: Engineering Design Brief Report - Conquering a traditional activity <i>Due ____ on BrightSpace</i> **This activity requires an advanced preparation for household materials** |
| Week 4 | Engineering Practices for Educators/Habits of Mind <u>Reading:</u> Thinking Like an Engineer: Using Engineering Habits of Mind and Signature Pedagogies to Redesign Engineering Education by B. Lucas and J. Hanson (2016) | Discussion Forum 2 <ul style="list-style-type: none"> • Your personal thread in response to the questions in the discussion forum <i>Due ____ on BrightSpace</i> • Reply to two different threads <i>Due ____ on BrightSpace</i> |
| Week 5 | Analysis of an Engineering Activity 1: “Testing the Waters” Part 1 by Museum of Science Prep Activities 1&2, Activities 1, 2 & 3 | Unit Plan 1 Analysis Part 1 <ul style="list-style-type: none"> • Your personal thread in response to the questions in the discussion forum <i>Due ____ on BrightSpace</i> • Reply to two different threads <i>Due ____ on BrightSpace</i> |
| Week 6 | Analysis of an Engineering Activity 1: “Testing the Waters” Part 2 Activities 4,5,& 6 | Unit Plan 1 Analysis Part 2 <ul style="list-style-type: none"> • Your personal thread in response to the questions in the discussion forum <i>Due ____ on BrightSpace</i> • Reply to two different threads <i>Due ____ on BrightSpace</i> |

| | | |
|----------------------------|---|---|
| Week 7 | <p>Assessment of Engineering Design Process</p> <p><u>Reading:</u> Chapter 6: “Integrating Assessment into Design Challenge Units” by <i>Jameson et al. (2020)</i></p> | <p>Discussion Forum 3</p> <ul style="list-style-type: none"> Your personal thread in response to the questions in the discussion forum Due ____ on BrightSpace Reply to two different threads Due ____ on BrightSpace |
| Week 8 | <p>Engineering at Informal Learning Centers and After School Programs</p> <p>Informal Learning Centers with Engineering Education Resources in New England</p> | <p>Brief Task# 4: Mid Semester Evaluation</p> <p>Discussion Forum 4</p> <ul style="list-style-type: none"> Your personal thread in response to the questions in the discussion forum Due ____ on BrightSpace Reply to two different threads Due ____ on BrightSpace |
| UMaine Spring Break | | |
| Week 9 | <p>Engineering Identity</p> <p>An example interview with an engineer</p> <p><u>Reading:</u> Chapter 2: “What is Engineering?” by National Academy of Sciences (2009)</p> | <p>Interview an Engineer – Recording and Report Due ____ on BrightSpace</p> |
| Week 10 | <p>Teachers’ Conceptions of Engineering</p> <p><u>Reading:</u> Chapter 5: “How Teachers Support Investigation and Design” by <i>National Academy of Sciences (2019)</i></p> | <p>Teachers vs. Engineers Panels</p> <ul style="list-style-type: none"> Group Recording Due ____ on Zoom Individual Reflections on the Meeting Due ____ on BrightSpace |
| Week 11 | <p>Equity in Learning Engineering and Becoming an Engineer</p> <p><u>Reading:</u> “Can I drop it this time?” Gender and Collaborative Group Dynamics in an Engineering Design-Based Afterschool Program by <i>Schnittka (2016)</i></p> <p><u>Reading:</u> “Engineering Education in the Science Classroom: A Case Study of One Teacher’s Disparate Approach with Ability-Tracked Classrooms” by <i>Schnittka (2012)</i></p> | <p>Discussion Forum 5</p> <ul style="list-style-type: none"> Your personal thread in response to the questions in the discussion forum Due ____ on BrightSpace Reply to two different threads Due ____ on BrightSpace |
| Week 12 | <p>Analysis of an Engineering Activity 2: “Worlds Apart” Part 1 by Museum of Science in Boston</p> <p>Prep Activities 1&2, Activities 1, 2 & 3</p> | <p>Unit Plan 2 Analysis Part 1</p> <ul style="list-style-type: none"> Your personal thread in response to the questions in the discussion forum Due ____ on BrightSpace Reply to two different threads Due ____ on BrightSpace |

| | | |
|---|--|--|
| <p>Week 13</p> | <p>Analysis of an Engineering Activity 2: “Worlds Apart” Part 2 by Museum of Science in Boston</p> <p>Activities 4,5, & 6</p> | <p>Unit Plan 2 Analysis Part 2</p> <ul style="list-style-type: none"> Your personal thread in response to the questions in the discussion forum <i>Due ____ on BrightSpace</i> Reply to two different threads <i>Due ____ on BrightSpace</i> |
| <p>Week 14</p> | <p>Engineering Education Resources Expo</p> <p><u>Reading:</u> Chapter 4: The Current State of K–12 Engineering Education by <i>National Academies of Science (2009)</i></p> | <p>Engineering Education Resource Presentation Recording</p> <ul style="list-style-type: none"> Your personal thread in response to the questions in the discussion forum <i>Due _____ on BrightSpace</i> Reply to two different threads <i>Due _____ on BrightSpace</i> |
| <p style="text-align: center;">Last Day of Classes at UMaine</p> | | |



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

Graduate course proposals, modifications, or eliminations must be submitted to the Graduate School no later than the 3rd of each month. Please refer to the Graduate School website for the Curriculum Committee meetings schedule. Electronic signatures and submission is required.

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT COEHD/ SLT/ Graduate Special Education Program

COURSE DESIGNATOR SED COURSE NUMBER 625 EFFECTIVE SEMESTER Summer 2021

COURSE TITLE Sp Education Internship for Maine's Alternative Certification and Mentoring

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
 New Course with Electronic Learning
 Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change Description Change Cross Listing (must be at least 400-level)¹
 Number Change Prerequisite Change Other (specify) _____
 Title Change Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

12/17/2020

College(s) Curriculum Committee Chair(s) [if applicable]

12/23/2020

College Dean(s)

1/22/21

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 1 (FOR NEW COURSE PROPOSALS)

Proposed Catalog Description (include designator, number, title, prerequisites, credit hours):

SED 625 Special Education Internship for MACM 3 credit hours
Prerequisite: Permission of instructor.

This course orients conditionally certified special educators to the practice of special education during their first year teaching. It provides practical, applicable information and experiences encountered by special educators during the course of a school year. Course note: Course may have bimonthly synchronous meetings.

Components (type of course/used by Student Records for MaineStreet) – Multiple selections are possible for courses with multiple non-graded components:

- Applied Music Clinical Field Experience/Internship Research Studio
 Laboratory Lecture/Seminar Recitation Independent Study Thesis

Text(s) planned for use:

Martin, C., & Hauth, C. (2015). *The Survival Guide for New Special Educators* 2nd ed. Arlington, VA: Council for Exceptional Children. ISBN 978-0-86586-506-8 (soft cover); 978-0-86586-507-5 (eBook).

Course Instructor (include name, position, teaching load):

Dr. Karen Kusiak teaches this course as external faculty. Valerie Smith is the coordinator of Maine's Alternative Certification and Mentoring.

Reason for new course:

Maine DOE Rule Chapter 180 requires completion of "an alternative certification and mentoring program designated by the Department specifically for all conditionally certified special education teachers." (071Ch 180, Sec 11 sub 5) MACM is the designated program and is funded through an MOU with Maine Department of Education, and a key component of MACM is successful completion of SED 625 Special Education Internship for MACM. Maine experiences a shortage of qualified special education teachers, requiring that School Administrative Units and Special Purpose Private Schools hire conditionally certified special education teachers.

Does the course addition require additional department or institutional facilities, support and/or resources, e.g. new lab facilities, computer support and services, staffing (including graduate teaching assistants), or library subscriptions and resources?

- No. The department will not request additional resources for this course.
 Yes. Please list additional resources required and note how they will be funded or supported.

What other departments/programs are affected (e.g. course overlap, prerequisites)? Have affected departments/programs been consulted? Any concerns expressed? Please explain.

None.

How often will this course be offered? Will offering this course result in overload salary payments, either through the college or CED, either to the instructor of this course or to anyone else as a result of rearranging teaching assignments?

This course will be offered fall and spring semesters. There are no overload payments nor impact on current teaching assignments. This course is currently being taught by external faculty.



Mission Statement: Drawing on a rich tradition of excellence, the College of Education and Human Development at Maine's flagship university is committed to leading innovation in Maine's Pre-K-12 schools, higher education institutions, and agencies that support academic, cognitive, physical, social and emotional development. We promote effective teaching and learning, identify critical issues, conduct research, and disseminate findings. Collaborating with external partners and experts across the University of Maine, we prepare our graduates to engage in ethical conduct, reflective practice, meaningful inquiry, and data-driven decision making in order to meet the increasingly diverse needs of our state and the world in which we live.



OUTCOME:
Educational practices that are *equitable, meaningful, and relevant*

Conceptual Framework

Reflective Practice serves as the centerpiece of the conceptual framework and one of the COEHD's core principles for teacher preparation at the University of Maine. The reflective teacher is one who seriously acknowledges the complexity of the classroom-learning environment and seeks to understand how certain interrelated variable in their particular classroom setting affects student learning. The reflective teacher does this by analyzing and evaluating the effect specific curriculum, instruction, and assessment practices will have on their students. Through such analysis the teacher will be able to create a learning environment that is most appropriate

for their group of students.

Reflective practice, as one of the core principles, serves as an overarching theme for the COEHD's teacher education preparation program. The other core principles, "Dedication to Teaching and Learning", "Synthesis of Theory and Practice", and "Collaboration and Mentoring", are developed in the COEHD's required professional courses through curriculum, political beliefs, personality styles, interests, and abilities. Schooling, especially public schooling, continues to have a central role in educating our nation's citizens for life in this diverse and pluralistic society.

**SED 598 Special Education Internship for
Maine's Alternative Certification and Mentoring Program (MACM)
Fall 2020**

Brightspace: <https://courses.maine.edu/d2l/home>

IT Help Center: <https://umaine.edu/it/>

| | |
|--|---|
| <p>Instructor: Karen Kuslak, Ed.D.</p> <p>Office: virtual: Zoom or phone Zoom 445 023 3470</p> <p>Email: karen.kusiak@maine.edu</p> <p>Phone: 207-441-2048</p> | <p>Primary Delivery Format: Online with synchronous seminars on the following Tuesday evenings: Sept 8 & 22, Oct 6 & 27, Nov 10, Dec 1 & 8</p> <p>Class Location: Online (Brightspace) with Zoom ID: 910-7833-5822 SED598</p> <p>Office hours: By appointment, schedule via email – either Zoom or phone</p> |
|--|---|

Preferred method of communication with instructor: Students are encouraged to first contact Dr. Kusiak via umaine email. Emails will be responded to within 24 hours on weekdays and 48 hours on weekends and university holidays. Students may also to request to meet by appointment in person, or via phone or Zoom.

Course Information

Course Description

This course orients conditionally certified special educators to the practice of special education during their first year teaching. It provides practical, applicable information and experiences encountered by special educators during the course of a school year. Course topics include special education law, application of IDEA from initial referral to IEP implementation, adapting instruction, promoting self-advocacy and social inclusion, peer and parent collaboration, and supervision of educational technicians. *3 credit hours. Prerequisites: Enrolled in the MACM program.*

Course Delivery Method

Teaching Methods

Course content is accessed through a variety of channels including assigned readings, online course modules, videos, case studies, written and oral group discussions, and synchronous presentations, among others. Assignments are designed to provide direct experiences with course content and to extend learning about concepts and issues addressed in this course for working in special education programs. Course participants are encouraged to reflect on the course content and to relate and apply new learning to their own experiences in prek-12 classrooms.

Mode of Instruction

This is an asynchronous online course with regular synchronous (live) components. Course participants will complete assignments with due dates between scheduled Zoom seminar meetings, and will have other assignments – or preparation – that will be due for the scheduled synchronous Zoom seminar meetings. Viewing recorded sessions of Zoom meetings will not substitute for presence during a synchronous Zoom seminar.

Time

This is an asynchronous and synchronous online course with scheduled live seminars via Zoom from 6:30pm until *8:00/8:30 pm on September 8 & 22, October 6 & 27, November 10, and December 1 & 8.

Typically, weekly assignments will be due on Monday evenings at midnight whether the week's learning mode is asynchronous or synchronous. Some assignments will need to be completed prior to Monday evenings so that members of the class can respond to written discussion of other members.

Live seminar schedule:

September 8

September 22

October 6

(Fall Break – Indigenous Peoples Day – October 12 & 13 – asynchronous work load adjusted accordingly)

October 27

November 10

(Thanksgiving Week – individual synchronous check-ins in preparation for final presentations in December as needed Monday & Tuesday, November 23 & 24)

December 1 – First set of in-class presentations

December 8 – Second set of in-class presentations

* Typically, the seminars will end close to 8:00 pm, however some evenings we may run over if we view a video or if course participants are making presentations. Furthermore, some course members may want to remain in the Zoom space for one-on-one conversation with the faculty member after the formal Zoom session.

Digital Services Required

- Learning Management System: Brightspace <https://courses.maine.edu>
- Web Conferencing Service: Zoom
- Video recording/sharing service: Kaltura
- Library: <https://library.umaine.edu/>
- Computer requirements: Access to a computer with high speed internet
- Other:
 - [Adobe Acrobat Reader](#) or compatible program (ex. Preview on a Mac computer)
 - [Microsoft Office for completing assignments or compatible software](#); this can be downloaded for free from the University of Maine Information Technology Software website (*Note: You must be able to export the file to a Word document or PDF, per the instructor's directions—Pages files cannot be accessed*)
 - [APA Style website](#) or [APA manual \(7th edition\)](#)
 - Access to My Campus portal for all things related to the University system, including UMaine email: <https://umaine.edu/portal/>
 - All communication and Brightspace announcements are sent to your [maine.edu](#) email address
 - *Webcam, microphone, and Microsoft Word software. (Built-in camera and microphone are usually suitable. A headset or earphones may be needed to avoid other members households overhearing seminar discussions. Microsoft software is available to you as University students at no cost.)*

Technical Assistance

If you are unfamiliar with the Brightspace Platform, you are encouraged to take the self-guided tutorial, Brightspace, available at <https://courses.maine.edu/d2l/le/discovery/view/home>

If you need assistance with technology, please contact the UMaine IT Help Desk: <https://umaine.edu/it/>, 800-696-4357, or help@maine.edu

Quick Contact Information for UMaine Online Students (Brightspace, Kaltura, Zoom)

Phone: 1-877-947-4357

Email: dlltechhelp@maine.edu

- Fall and Spring semesters: 8 am to 5 pm (Monday-Friday)
- Summer, Winter, and Breaks: 8 am to 4:30 pm (Monday-Friday)
- Limited email support nights, weekends, school breaks, and holidays

For Software, Hardware, and UMS Account Support, contact IT Support Services

Phone: 207-581-2506 or 800-696-4357

Email: techsupport@maine.edu

- Academic year support hours: 7:30 am to 7 pm (Monday-Thursday), 7:30 am to 5 pm (Friday), and 2 pm to 8 pm (Sunday)

Required Texts

Golden, C. (2018). *The Data Collection Toolkit*. Baltimore, MD: Paul Brookes

Martin, C., & Hauth, C. (2015). *The Survival Guide for New Special Educators* 2nd ed. Arlington, VA: Council for Exceptional Children

Winterman, K. G.; & Rosas, C. E. (2014). *The IEP Checklist*. Baltimore: Paul H. Brookes

Other articles, chapters, videos, or recordings as assigned and provided by the Instructor

Course Goals and Objectives

Course Goal:

SED 598 is designed to support conditionally certified special educators in their first year of practice by familiarizing them with special education-specific information, requirements, strategies, leadership, and advocacy. Participants will understand and examine the information, requirements, strategies, and will practice leadership and advocacy.

Student Learning Outcomes:

By the end of this course, participants will

- Apply provisions of IDEA from initial referral to completion and application of the individualized education plan (IEP) to support their students;
- Design strategies to adapt instruction for students with disabilities;
- Apply specific strategies for classroom management and individual behavior support;
- Use reliable and valid sources of information to evaluate instructional and assessment materials;
- Understand family perspectives and use techniques to develop and maintain strong family/teacher collaborative relationships;
- Understand how structures outside of schools influence outcomes for students, and identify ways to influence outside structures;
- Apply strategies to enhance collaboration with other educators and related service personnel;
- Consider and select strategies for using remote learning modes, as needed, this school year;
- Use various assessments and data collection methods to chart student baseline and to monitor student progress;
- Apply techniques to orient and supervise educational technicians;
- Explore factors related to the role of special education teacher;
- Prepare effective transition plans;
- Review Assistive Technology;
- Communicate effectively in both written and spoken modalities about topics related to the field of special education;
- Craft thoughtful responses that reveal careful thinking about dilemmas, issues, and unresolved questions related to public education in 2020.

Grading and Course Expectations

Expectations for Student Engagement

This course is designed to promote a learning community in which student participation is critical for individual development and the development of colleagues/classmates. Course members are expected to contribute to seminar discussions, respond - using careful and thoughtful writing - to discussion prompt questions and to comment on the responses of colleagues/classmates when required, and to complete assigned readings and/or view other media prior to Zoom seminar sessions and oftentimes between Zoom seminar sessions.

Course Readings

Course members will be assigned readings from the required texts. Additionally, course members will read relevant research articles, book chapters, or supplemental materials and review videos and other media, all of which will be posted to the Brightspace course site.

Course Assignments

Carefully read descriptions of assignments to ensure each component of an assignment is addressed in submitted work. Note the details in the assignment prompts and ask questions if clarification is needed. Assignments may be submitted before the due date, but they will not be graded and returned until after the due date. Typically, the instructor, Karen Kusiak, will describe the assignments and preview readings during the live Zoom seminar sessions or in short recorded videos.

General Guidelines:

- All assignments should reflect professionalism in writing and use standardized English.
- Headings and page numbers should be used to organize the assignments (see APA guidelines).
- Follow all assignment-specific guidelines (e.g., specific headers, requirements, respond to all points or questions)
- Include name, project title, and date at the top of assignments.
- All assignments requiring references are to be cited and referenced in American Psychological Association (APA) style.
- Assignments are expected to be original work and not plagiarized. (See note about academic honesty below in the syllabus.) Exceptions to this guideline will be made for any assigned partner or group work.
- Assignments should be submitted as a pdf or Word.doc or .docx unless otherwise noted or by permission of the instructor. Pages documents cannot be accepted.
- Retain a personal copy of all assignments.

Course Assignments

Note: Assignment details will be posted on Brightspace.

| | | |
|--|--------------|--|
| 1. Seminar Preparation and Participation | 35% of grade | on-going via Brightspace and Zoom |
| 2. Content Checks in Brightspace | 15% of grade | on-going via Brightspace |
| 3. Case Study Components | 25% of grade | Assigned in September for the semester |
| 5. Case Study Presentation | 10% of grade | During Zoom meetings 4/28 & 5/5 |
| 6. Case Study | 15% of grade | Due 5/10 |

Grading Scale:

| | | | | |
|---------------|---------------|---------------|---------------|---------------|
| A = 95 – 100% | B+ = 86 – 89% | C+ = 76 – 79 | D+ = 66 – 69% | F = Below 59% |
| A- = 90 – 94% | B = 83 – 85% | C = 73 – 75% | D = 63 – 65% | |
| | B- = 80 – 82% | C- = 70 – 72% | D- = 60 – 62% | |

Course Policies

Attendances and Absences

This is a fast-paced and interactive on-line class with both live sessions (synchronous) and independent, but scheduled, learning (asynchronous.) Participants “attend” independent (asynchronous) class by accessing learning materials and completing activities posted on Brightspace.

Excused absences from Zoom Seminars will be permitted only for emergencies and with advance arrangement with the course instructor when possible. Since participation is measured, in part, by live responses to questions and comments from your colleagues, unexcused absences will result in a reduction in your course participation grade.

Zoom Seminar protocol

Be present at the Zoom seminar as if you were attending a face-to-face class meeting at the University. Cats are fun to see walking across the camera on fellow course participants’ devices, but persistent pet and family member interruptions at your Zoom location are distracting. Avoid multi-tasking during Zoom seminars – e.g. actively caring for a child, coaching after-school programs, cooking, folding clothes. Having your own dinner with your Zoom classmates is fine and encouraged, however!

Note for 2020 – The above protocol for Zoom seminars is standing language in the syllabus from 2018. In fall 2020, educators and their families likely experience Zoom-fatigue. A small child who has been home with a working

parent who has been on Zoom much of the day deserves a moment to sit with that parent in the evening, even if that parent is now sitting through a required Zoom seminar. Given stressful work and living conditions, for this semester, occasionally visible children, family members, and pets on Zoom will be overlooked. Furthermore, while course members will gain the most from one another when we can all see each other on camera, occasional “video off” moments will be overlooked given that any of us who have been sitting or standing in one place all day teaching via distance learning methods will need to stretch, walk around, or take a substantial bite of dinner. However, don’t expect our Zoom seminars to operate as “webinars” that you can just listen to; we will be interacting so prepare to engage. Please be mindful of confidentiality when talking about schools and students, and given that occasionally we will be talking about practices at specific schools where you work, if family members or housemates can overhear the seminars, it will be necessary for course participants to use a headset or earphones.

Late Assignments

Most course assignments build on the work done in previous assignments. This means that one late assignment is likely to impact succeeding assignments. It is easy to fall behind and feel overwhelmed; emergencies arise at times that impact our ability to work. If you cannot complete an assignment in the allotted time, please contact the course instructor, Karen Kusiak, before the assignment is due to request an extension and work out a plan to successfully finish the assignment. Any reduction of points after a week’s extension will be at your instructor’s discretion.

University Grading and Course Expectations

Expectations for Student Engagement

This is a graduate level course that recognizes that participants are required to complete the course and that each participant will have varying backgrounds in education and special education. Each participant is expected to meet due dates for assignments given that a number of assignments are dependent on the work of other participants. Participants are expected to reference course resources and connect with other course participants as appropriate before asking for individual assistance with locating assignment information

Special Education Policy on Incompletes in Graduate Classes

I, for “Incomplete:” This grade means that, in consultation with the participant, the instructor has postponed the assignment of a final grade to allow the participation to complete specific work not turned in before the end of the semester. Instructors assign the “I” grade only when they are persuaded that events beyond the participant’s control prevented the completion of assigned work on time and when the participant has successfully completed more than 50% of the class successfully. The instructor will outline the work to be completed and the due dates. If the incomplete work is not submitted within the time allotted by the faculty member, the incomplete work will earn a grade of “O” and the overall grade for the course will be recorded as the final grade. A student may not carry a combination of more than three “I” or “L” grades in all enrolled degree programs without the permission of the graduate program coordinator and the Graduate School.

Conceptual Framework for College of Education and Human Development

- Research, Innovation, Collaboration, and Engagement are four themes that guide the work of the faculty in the College of Education and Human Development at the University of Maine.
- Research is important because decisions should be made based on systematic collection and analysis of evidence. This can take many forms, including quantitative studies, qualitative studies, and action research projects. Without evidence, educators may slide into making decisions based on unexamined assumptions, pre-conceived ideas, and even stereotypes of learners.
- Innovation is important because we live in a world characterized by both continuities and changes. We need to recognize what is of value based on past experience, while at the same time being attune to changes in such areas as technology, the economy, the natural world, and human populations.
- Collaboration is critical because people with different experiences and perspectives, and from different backgrounds, have much to offer to an understanding of educational issues in relation to the larger society

in which educational institutions and practices are embedded. Prek-12 educators, educators in higher education institutions, parents, members of community organizations, and other community leaders all have important perspectives on learners and learning.

- Engagement is essential to both teaching and learning. In order to be successful, learners must be motivated to pursue knowledge and understanding, recognizing that learning is relevant and meaningful to their lives in both present and future. Educators likewise must be engaged in discovering what educational practices are most likely to motivate students. Both must become intrinsic, lifelong learners.
- Cutting across these themes is the belief that leadership in addressing contemporary and future issues and needs is a reflective process that requires thoughtful and evaluative analysis of the many forces and factors that affect teaching, learning, and schooling. The ultimate outcome of reflective practice and leadership is to be proactive in implementing educational practices that are equitable, meaningful, and relevant for student and societal welfare. Developing your capacity for reflective thought and action is a core outcome of this course.

Campus Policies

A grade of I (Incomplete) is assigned if a student has been doing work of acceptable quality but, for reasons satisfactory to the instructor, has not completed all the work required to earn credit by the end of the semester or session. The work must be completed and submitted to the instructor by the date agreed to with the instructor, but not later than one year (i.e., 12 months) from the end of the semester or session in which the incomplete was granted.

An I remains on the transcript permanently if not resolved or if a written request for an extension is not approved within the allotted time period for removing the incomplete. A request for an exception to regulation to extend an incomplete beyond one year must be approved by the instructor, the student's advisor (for degree students), Graduate Program Coordinator, and Dean. The request should note the circumstances necessitating the extension, the work that remains unfinished, and a specific deadline for completion. An extension will be granted only under unusual circumstances. For grades of I, it is the student's responsibility to reach and maintain an understanding with the instructor concerning the timely completion of the work.

<https://umaine.edu/cit/teaching-resources-2/required-syllabus-information/>

Academic Honesty Statement: Academic honesty is very important. It is dishonest to cheat on exams, to copy term papers, to submit papers written by another person, to fake experimental results, or to copy or reword parts of books or articles into your own papers without appropriately citing the source. Students committing or aiding in any of these violations may be given failing grades for an assignment or for an entire course, at the discretion of the instructor. In addition to any academic action taken by an instructor, these violations are also subject to action under the University of Maine Student Conduct Code. The maximum possible sanction under the student conduct code is dismissal from the University.

Students with disabilities statement: If you have a disability for which you may be requesting an accommodation, please contact Student Accessibility Services, 121 East Annex, 581.2319, as early as possible in the term. Students who have already been approved for accommodations by SAS and have a current accommodation letter should meet with the instructor privately as soon as possible.

Course Schedule Disclaimer (Disruption Clause): In the event of an extended disruption of normal classroom activities, the format for this course may be modified to enable its completion within its programmed time frame. In that event, you will be provided an addendum to the syllabus that will supersede this version.

Observance of Religious Holidays/Events: The University of Maine recognizes that when students are observing significant religious holidays, some may be unable to attend classes or labs, study, take tests, or work on other assignments. If they provide adequate notice (at least one week and longer if at all possible), these students are

allowed to make up course requirements as long as this effort does not create an unreasonable burden upon the instructor, department or University. At the discretion of the instructor, such coursework could be due before or after the examination or assignment. No adverse or prejudicial effects shall result to a student's grade for the examination, study, or course requirement on the day of religious observance. The student shall not be marked absent from the class due to observing a significant religious holiday. In the case of an internship or clinical, students should refer to the applicable policy in place by the employer or site.

Sexual Discrimination Reporting

The University of Maine is committed to making campus a safe place for students. Because of this commitment, if you tell a teacher about an experience of sexual assault, sexual harassment, stalking, relationship abuse (dating violence and domestic violence), sexual misconduct or any form of gender discrimination involving members of the campus, your teacher is required to report this information to the campus Office of Sexual Assault & Violence Prevention or the Office of Equal Opportunity.

If you want to talk in confidence to someone about an experience of sexual discrimination, please contact these resources:

For confidential resources on campus: Counseling Center: 207-581-1392 or Cutler Health Center: at 207-581-4000. *For confidential resources off campus:* Rape Response Services: 1-800-871-7741 or Partners for Peace: 1-800-863-9909.

Other resources: The resources listed below can offer support but may have to report the incident to others who can help:

For support services on campus: Office of Sexual Assault & Violence Prevention: 207-581-1406, Office of Community Standards: 207-581-1409, University of Maine Police: 207-581-4040 or 911. Or see the OSAVP website for a complete list of services at <http://www.umaine.edu/osavp/>

Diversity

Ours is a diverse nation founded upon the protection of rights and liberties regardless of race, ethnicity, socio-economic status, gender, religion, exceptionalities, language, and sexual orientation. The Council for the Accreditation of Educator Preparation (CAEP), identifies diversity as two groups: one being individual differences (e.g., personality, interests, learning modalities, and life experiences), and the other being group differences (e.g., race, ethnicity, ability, gender identity, gender expression, sexual orientation, nationality, language, religion, political affiliation, and socio-economic backgrounds) and expects that diversity will be a pervasive characteristic of any quality preparation program. Other identity groups include, but are not limited to, age, community, family status, institutional affiliations. Schooling, especially public schooling, continues to have a central role in educating our nation's citizens for life in this diverse and pluralistic society. Choosing to teach in public schools means accepting the moral and ethical responsibilities inherent in building a strong democratic republic. In this course you will have many opportunities to examine your beliefs regarding diversity and the challenges of providing equitable and fair educational opportunities for all.

Confidentiality Statement

All academic records of students are maintained in the highest of confidence as directed by FERPA (Family Educational Rights and Privacy Act). For more information on the University of Maine FERPA Policy, please click on the following link <http://catalog.umaine.edu/content.php?catoid=50&navoid=1001>

Use of Electronic Communications

All users at the University of Maine are expected to use network systems with proper regard for the rights of others and the University. For more information on the University of Maine Electronic Communications Policy, please click on the following link <http://www.umaine.edu/it/policies/communication.php>

Non-Discrimination and Non-Sexist Language

The University of Maine does not discriminate on the grounds of race, color, religion, sex, sexual orientation, national origin or citizenship status, age, disability, or veteran status. Questions and complaints about discrimination should be directed to the Director of Equal Opportunity, 101 North Stevens Hall, 581-1226.

The University of Maine has made a firm public commitment to non-sexist language in all its classrooms and communications. This course will put that policy into practice by using both masculine and feminine terms, where both genders are intended, rather than so-called generic masculine terms. For further information, see <http://www.umaine.edu/womensstudies/home/non-sexist-language-policy/>

Faculty member's statement on Anti-Oppressive Language

The course instructor is committed to preparing educators for Maine's public schools who are equipped to practice anti-racist, anti-ableist, and generally anti-oppressive educational strategies both with their students, with educators in their school, and with fellow course participants. On-going oppression of marginalized groups in the United States is more visible to many of us, perhaps, in the face of a global pandemic, this summer's (and the last decade of) murders and injuries to people who are BIPOC, and the financial crisis. Anti-oppressive language, threads, and topics will be braided into the course work this semester much more intentionally than in other semesters. Course participants will be urged to think critically about their work and actions in schools and in the graduate school classroom, and encouraged to develop facility with anti-oppressive language through their completion of oral and written work for the course.



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

Graduate course proposals, modifications, or eliminations must be submitted to the Graduate School no later than the 3rd of each month. Please refer to the Graduate School website for the Curriculum Committee meetings schedule. Electronic signatures and submission is required.

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT Chemistry
COURSE DESIGNATOR CHY COURSE NUMBER 661 EFFECTIVE SEMESTER Fall 2021
COURSE TITLE Topics in Advanced Inorganic Chemistry

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
 New Course with Electronic Learning
 Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change Description Change Cross Listing (must be at least 400-level)¹
 Number Change Prerequisite Change Other (specify) _____
 Title Change Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

College(s) Curriculum Committee Chair(s) (If applicable)

College Dean(s)

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

CHY 661, Topics in Advanced Inorganic Chemistry, credit hours: 2

Varies

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

CHY 661, Topics in Advanced Inorganic Chemistry, credit hours: 1-3

Topics may include advanced level subjects such as ligand field theory and other bonding theories in inorganic chemistry; molecular symmetry and group theory; electronic, infrared and NMR spectroscopic properties of transition metal compounds; organometallic and bioinorganic chemistry of transition metals; and structures and properties of inorganic solids.

Reason for course modification:

Other graduate level topics courses in our department have the option of being offered for a varying number of credit hours. The graduate catalog shows this as Credit: Ar. We expect this course to be offered most frequently as a 3 credit course, but we want to preserve the option of offering it for fewer credit hours in some semesters.

As long as we are changing the number of credit hours, it seemed appropriate to provide a more detailed course description.

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

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GRADUATE PROGRAM/UNIT School of Learning & Teaching/ COEHD

COURSE DESIGNATOR EHD COURSE NUMBER 571 EFFECTIVE SEMESTER fall 2021

COURSE TITLE Qualitative Research: Theory, Design and Practice

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

 12/17/2020

College(s) Curriculum Committee Chair(s) [if applicable]

 12/22/2020

College Dean(s)



Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

EHD 571: Qualitative Research: Theory, Design and Practice

Examination and use of phenomenological approaches to social science research, emphasizing ethnographic methods in education and human service settings. Field work required.

Prerequisites: EHD 510 or EHD 575 and permission.

Credit hours: 3

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

EHD 571: Qualitative Research: Theory, Design and Practice

The purpose of this course is to introduce graduate students to qualitative research methods in the social sciences and other disciplinary contexts. We will explore theoretical foundations, methodologies, research design, interviewing and observation methods, data analysis and interpretation of findings. The course requires fieldwork in addition to the regularly scheduled class time.

Prerequisites: EHD 510 or EHD 575 or permission by instructor. Credit hours: 3

Reason for course modification:

To update the course description which has not been updated in many years. Also to more fully describe the purpose and content of this course. This graduate research methods course attracts students from a variety of disciplines across the campus.

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

Graduate course proposals, modifications, or eliminations must be submitted to the Graduate School no later than the 3rd of each month. Please refer to the Graduate School website for the Curriculum Committee meetings schedule. Electronic signatures and submission is required.

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT School of Learning & Teaching/ COEHD

COURSE DESIGNATOR EHD COURSE NUMBER 572 EFFECTIVE SEMESTER spring 2022

COURSE TITLE Advanced Qualitative Research

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

12/17/2020

College(s) Curriculum Committee Chair(s) [if applicable]

12/22/2020

College Dean(s)

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

EHD 572: Advanced Qualitative Research

Designed for advanced graduate students, this course examines theoretical foundations, methodologies, methods, analysis, interpretation, and writing in qualitative inquiry with an emphasis in education. In-depth fieldwork is a core component of the course.

Prerequisites: EHD 571 or equivalent course

Credit hours: 3

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

EHD 572: Advanced Qualitative Research: Design, Methods and Analysis

This course is designed to help graduate students further their understanding and skills in qualitative research, related to its use in the social sciences and other disciplinary contexts. The course will extend the concepts and skills learned in the introductory course EHD 571. Students will gain in-depth experience with: qualitative research design, selection of appropriate qualitative methods for inquiry, fieldwork emphasizing interviewing methods, use of software and other tools to analyze qualitative data, and ways to communicate about qualitative research and findings.

Reason for course modification:

To update the course description which has not been updated in many years. Also to more fully describe the purpose and content of this course. This graduate research methods course attracts students from a variety of disciplines across the campus. It is part of a two-course sequence that many students take back to back in a single academic year.

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

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NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

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Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT Special Education/ School of Learning and Teaching

COURSE DESIGNATOR SED COURSE NUMBER 513 EFFECTIVE SEMESTER Fall 2021

COURSE TITLE Early Childhood/Special Education Practicum

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

[Signature] 12/17/2020
College(s) Curriculum Committee Chair(s) (if applicable)

[Signature] 12/22/2020
College Dean(s)

[Signature]
Graduate School (sign and date)

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

SED 513 Practicum in Early Intervention, prerequisites: SED 521, SED 523;
3-6 credit hours

Focuses on planning, implementing and evaluating developmentally appropriate curricula and interventions for inclusive early care and education programs. Emphasis on the design and adaptation of environments, materials and activities to promote full participation by infants and young children with developmental delays and disabilities. May be repeated for up to a total of 6 credits.

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

SED 513 Early childhood intervention/ special education individualized practicum
prerequisites: SED student or permission; 1-6 credit hours

Focuses on planning, implementing and evaluating developmentally appropriate curricula and interventions for inclusive early care and education programs. Emphasis on the design and adaptation of environments, materials and activities to promote full participation by infants and young children with developmental delays and disabilities.

Reason for course modification:

Updating to reflect the current need of the master's program to support student practicum experiences.

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

Graduate course proposals, modifications, or eliminations must be submitted to the Graduate School no later than the 3rd of each month. Please refer to the Graduate School website for the Curriculum Committee meetings schedule. Electronic signatures and submission is required.

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT COEHD/ SLT - Special Education program

COURSE DESIGNATOR SED COURSE NUMBER 520 EFFECTIVE SEMESTER Summer 2021

COURSE TITLE Law and Policy Affecting Individuals with Disabilities

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

12/17/2020

College(s) Curriculum Committee Chair(s) [if applicable]

12/22/2020

College Dean(s)

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

SED 520 Law and Policy Affecting Individuals with Disabilities (3 credits)
Prerequisite: SED 302, SED 402, or SED 500

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

SED 520 Law and Policy Affecting Individuals with Disabilities (3 credits)
Prerequisite: SED student or permission

Reason for course modification:

As a program, we have decided to eliminate the redundancy that exists in having many of our courses listed as having prerequisites that are the same as the prerequisites for admission to our graduate program. In general, we are changing all of them to have the following listed as a prerequisite: graduate standing or instructor permission. This will lighten the load for faculty and staff who otherwise would need to manually register each student who does not have SED 302, SED 402, or SED 500 on their transcripts as they may already have teaching certification.

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

NA

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

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GRADUATE PROGRAM/UNIT COEHD/ SLT - Special Education program

COURSE DESIGNATOR SED COURSE NUMBER 532 EFFECTIVE SEMESTER Summer 2021

COURSE TITLE Behavior Management and Intervention

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

 12/17/2020

College(s) Curriculum Committee Chair(s) [if applicable]

 12/22/2020

College Dean(s)



Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

SED 532 Behavior Management and Intervention (3 credits)
Prerequisite: SED 302, SED 402, or SED 500

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

SED 532 Behavior Management and Intervention (3 credits)
Prerequisite: SED student or permission

Reason for course modification:

As a program, we have decided to eliminate the redundancy that exists in having many of our courses listed as having prerequisites that are the same as the prerequisites for admission to our graduate program. In general, we are changing all of them to have the following listed as a prerequisite: graduate standing or instructor permission. This will lighten the load for faculty and staff who otherwise would need to manually register each student who does not have SED 302, SED 402, or SED 500 on their transcripts as they may already have teaching certification.

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

NA

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

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GRADUATE PROGRAM/UNIT COEHD/ SLT - Special Education program

COURSE DESIGNATOR SED COURSE NUMBER 544 EFFECTIVE SEMESTER Fall 2021

COURSE TITLE Mathematical Methods in Special Education

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

12/17/2020

College(s) Curriculum Committee Chair(s) [if applicable]

12/22/2020

College Dean(s)

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

SED 544: Mathematical Methods in Special Education; (3 credits)
Prerequisite: SED 302, SED 402, or SED 500

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

SED 544: Mathematical Methods in Special Education; (3 credits)
Prerequisite: SED student or permission

Reason for course modification:

As a program, we have decided to eliminate the redundancy that exists in having many of our courses listed as having prerequisites that are the same as the prerequisites for admission to our graduate program. In general, we are changing all of them to have the following listed as a prerequisite: graduate standing or instructor permission.

This will lighten the load for staff and faculty who otherwise would need to manually register each student who does not have SED 302, SED 402, or SED 500 on their transcripts as they may already have teaching certification.

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

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NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

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Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT COEHD/ SLT - Special Education program

COURSE DESIGNATOR SED COURSE NUMBER 545 EFFECTIVE SEMESTER Fall 2021

COURSE TITLE Intervention for Reading Difficulties

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

 12/17/2020

College(s) Curriculum Committee Chair(s) [if applicable]

 12/22/2020

College Dean(s)



Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

SED 545 Intervention for Reading Difficulties (3 credits)
Prerequisite: SED 302, SED 402, or SED 500

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

SED 545 Intervention for Reading Difficulties (3 credits)
Prerequisite: SED student or permission

Reason for course modification:

As a program, we have decided to eliminate the redundancy that exists in having many of our courses listed as having prerequisites that are the same as the prerequisites for admission to our graduate program. In general, we are changing all of them to have the following listed as a prerequisite: graduate standing or instructor permission. This will lighten the load for faculty and staff who otherwise would need to manually register each student who does not have SED 302, SED 402, or SED 500 on their transcripts as they may already have teaching certification.

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

NA

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NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

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Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT COEHD/ SLT - Special Education program

COURSE DESIGNATOR SED COURSE NUMBER 553 EFFECTIVE SEMESTER Fall 2021

COURSE TITLE Assessment in Special Education I

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

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Leader, Initiating Department/Unit(s)

12/17/2020

College(s) Curriculum Committee Chair(s) [if applicable]

12/22/2020

College Dean(s)

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

SED 553 Assessment in Special Education I (3 credits)
Prerequisite: SED 302, SED 402, or SED 500

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

SED 553 Assessment in Special Education I (3 credits)
Prerequisite: SED student or permission

Reason for course modification:

As a program, we have decided to eliminate the redundancy that exists in having many of our courses listed as having prerequisites that are the same as the prerequisites for admission to our graduate program. In general, we are changing all of them to have the following listed as a prerequisite: graduate standing or instructor permission. This will lighten the load for faculty and staff who otherwise would need to manually register each student who does not have SED 302, SED 402, or SED 500 on their transcripts as they may already have teaching certification.

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

NA

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NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

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GRADUATE PROGRAM/UNIT COEHD/ SLT - Special Education program

COURSE DESIGNATOR SED COURSE NUMBER 556 EFFECTIVE SEMESTER Spring 2022

COURSE TITLE Assessment of Students with Autism Spectrum Disorders and Severe Disab

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

12/17/2020

College(s) Curriculum Committee Chair(s) [If applicable]

12/22/2020

College Dean(s)

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

SED 556 Assessment of Students with Autism Spectrum Disorders and Severe Disabilities (3 credits)

Prerequisites: SED 302 or SED 402 or SED 500 or permission

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

SED 556 Assessment of Students with Autism Spectrum Disorders and Severe Disabilities (3 credits)

Prerequisites: SED student or permission

Reason for course modification:

As a program, we have decided to eliminate the redundancy that exists in having many of our courses listed as having prerequisites that are the same as the prerequisites for admission to our graduate program. In general, we are changing all of them to have the following listed as a prerequisite: graduate standing or instructor permission.

This will lighten the load for staff and faculty who otherwise would need to manually register each student who does not have SED 302, SED 402, or SED 500 on their transcripts as they may already have teaching certification.

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

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UNIVERSITY OF MAINE SYSTEM
Substantive Change to an Existing Program

CAMPUS: UNIVERSITY OF MAINE

DIVISION: GRADUATE SCHOOL OF BUSINESS

DATE: JANUARY 2021

- 1. Title:**
Changes to the core curriculum and required foundational courses for the Graduate School of Business Programs including:
 - a. MaineMBA
 - b. Certificate in Business Analytics
 - c. Certificate in Business Administration

- 2. Person Responsible for Planning:**
Name: Jamie Ballinger
Department: Graduate School of Business (GSB)
Address: DP Corbett
Telephone Number: 581-1973

- 3. General Objective of Proposal:** Proposal for updated FOUNDATIONS and CORE. (Note: Seven (7) course modification forms and one (1) new course proposal form are in attached Appendices.)

Part 1: GSB Foundations Requirements

The **current** GSB Foundations includes eight (8) courses:

- | | |
|----------------------------|---------------|
| 1. Accounting - Financial | 5. Finance |
| 2. Accounting - Managerial | 6. Management |
| 3. Economics - Micro | 7. Marketing |
| 4. Economics - Macro | 8. Statistics |

The **proposed** GSB Foundations include four (4) essential skills demonstrated through flexible modalities (eg. undergraduate courses, tutorials, demonstrated experience, etc.), as approved by the Graduate Coordinator:

- | | |
|------------------------------------|---|
| 1. Accounting - Introductory level | 3. Finance - Introductory level |
| 2. Economics - Introductory level | 4. Statistics - Through linear regression |

Part 2: GSB Core Requirements

The **current** GSB Core includes eight (8) courses:

- BUA 601 Data Analysis for Business
- MBA 605 Information in the Digital Age
- MBA 609 Managerial Accounting
- MBA 620 Law and Policy of Business
- MBA 626 Management of Contemporary Organizations
- MBA 649 Managerial Policy
- MBA 651 Financial Management
- MBA 670 Managerial Marketing

The **proposed** GSB Core continues with eight (8) courses:

Changes to six (6) existing core courses:

1. BUA 601 ~~Business Analysis~~ Strategic Data Analysis
 - a. Title change
 - b. Description change
 - c. Change of prereqs to align to new foundations
2. MBA 609 Financial Statement Analysis
 - a. Description change
 - b. Change of prereqs to align to new foundations
3. MBA 626 Management of Contemporary Organizations
 - a. Change of prereqs to align to new foundations
4. MBA 651 Financial Management
 - a. Description change
 - b. Change of prereqs to align to new foundations
5. MBA 670 Managerial Marketing
 - a. Change of prereqs to align to new foundations
6. MBA 649 ~~Managerial Policy~~ Strategic Decision Making
 - a. Title change
 - b. Description change
 - c. Change of prereqs to align to new foundations

Addition of two (2) courses to core:

1. BUA 680 Foundations of Business Intelligence
 - a. Existing Course being added to core - no changes needed
2. MBA 637 Global Supply Chain Management
 - a. New Course

Removal of two (2) existing courses

- ~~1. MBA 620 Law, Business and Society (Will be offered as an elective)~~
- ~~2. MBA 605 Information in the Digital Age (Discontinued in 2017)~~

4. **Documented Evidence of Need:** This is an existing program requesting substantive change to core requirements. Evidence of need is supported by 1.) alignment with AACSB accreditation, 2.) benchmark institutional best practices and 3.) improved competitive advantage.
5. **A. Which campuses, agencies, organizations, institutions or individuals have you involved in the program?**

This change is the result of a three-year redesign process which has involved the business faculty members, leadership, and staff of UMaine, USM, and Maine Center for Graduate and Professional Studies, with additional support from Maine Law and various UMaine and USM departments. Additionally, this process was initiated by the 100 member GSB advisory committee, and has continued to be externally examined by the MBS advisory committee. Most recently, the program has been vetted and approved by:

- GSB Curriculum Committee
- GSB Steering Committee
- MBS Business Faculty
- USM Business Faculty
- Joint GSB faculty

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

The MaineMBA and affiliated programs continue to be the showcase for unified interdisciplinary program offerings throughout the UMaine system, involving partnership from multiple institutions, departments, and committees throughout the system. A short list of stakeholders include:

- USM Department of Business
- Maine Law
- Maine School of Business
- USM Muskie School of Public Policy
- UMaine Department of Food Science and Human Nutrition
- UMaine School of Policy and International Affairs
- UMaine Department of Information Sciences
- UMaine Advanced Structures and Composites Center
- UMaine School of Engineering

B. How? Governance structures are in place via MOUs with affiliated institutions and departments. Additional governance is provided through an inter-institutional faculty steering committee. Additionally, dedicated staff and academic-led committees oversee daily operations.

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

- A. Personnel:** Currently a Dean, Assistant Dean, Professional Academic Advisor, Administrative Support Specialist are dedicated to the GSB. A Marketing and Communications Coordinator, Finance and Operations Coordinator and Internship Coordinator are shared between GSB and MBS. Additionally, the program is delivered by business faculty at UMaine, USM, and within partnering units.
- B. Facilities:** Space is provided for the GSB at the Law Building on the USM campus and in DP Corbett on the UMaine campus.
- C. Equipment:** No additional specialized equipment is necessary.
- D. Funding Sources:** The GSB is funded through multiple pathways, including USM and UMaine contributions, Harold Alfond funds, individual donations, and revenue sharing.
- E. Library Resources:** No additional specialized library resources are necessary.
- F. Other:** None
- G. What additional new costs are required in any or all of the above categories?** None

7. Briefly describe preliminary plans for regular program evaluations, formative and summative: The GSB, through the Maine Business School, has held AACSB accreditation for more than 40 years. AACSB accreditation requires continual improvement through internal and external audits on a 5 year review cycle.

8. Time Frame


- a. Estimated Planning Time:** Complete
- b. Estimated Implementation Time:** Fall 2021
- c. Estimate of Program Lifetime:** NA

9. **COMPLETE FOR GRADUATE PROGRAM ONLY: On what other campus, if any, will this program be available? What plans are there to insure transferability from other campuses into this program or to deliver this program to other campuses?**

This is a unified programming partnership between multiple UMS campuses, with MOUs in place with USM, UMF, UMPI, and Maine Law. Courses are offered at UMaine, USM, and 100% online.

10. **Other Pertinent Data and/or Information: NA**

Submitted By:


Jamie Ballinger (Jan 20, 2021 08:27 EST)

Jan 20, 2021

Jamie Ballinger, Assistant Dean
(Signatures of Person(s) Responsible for Program Plan)

Date

Approved By:


Faye W. Gilbert, Ph.D. (Jan 20, 2021 08:41 EST)

Jan 20, 2021

Faye Gilbert, Dean of the Maine Business School and Interim Dean of the
Graduate School of Business

Chief Academic Officer

Date

President

Date

APPENDIX A: COURSE MODIFICATION FORMS

1. BUA 601 ~~Business Analysis~~ Strategic Data Analysis
 - a. Title change
 - b. Description change
 - c. Change of prereqs to align to new foundations
2. MBA 609 Financial Statement Analysis
 - a. Description change
 - b. Change of prereqs to align to new foundations
3. MBA 626 Management of Contemporary Organizations
 - a. Change of prereqs to align to new foundations
4. MBA 651 Financial Management
 - a. Description change
 - b. Change of prereqs to align to new foundations
5. MBA 670 Managerial Marketing
 - a. Change of prereqs to align to new foundations
6. MBA 649 ~~Managerial Policy~~ Strategic Decision Making
 - a. Title change
 - b. Description change
 - c. Change of prereqs



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GRADUATE PROGRAM/UNIT Graduate School of Business

COURSE DESIGNATOR BUA COURSE NUMBER 601 EFFECTIVE SEMESTER FA21

COURSE TITLE Data Analysis for Business

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

College(s) Curriculum Committee Chair(s) (if applicable)

Faye W. Gilbert, Ph.D.
Faye W. Gilbert, Ph.D. (Jan 20, 2021 08:41 EST)

College Dean(s)

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

This course familiarizes students with how to utilize data to inform organizational decision making. In doing so students will learn to identify business problems, then learn how to differentiate types of big data, then propose a research question, think critically about which statistical processes and applications will yield insights from the data, such that students are able to inform organizational decisions. Students will be challenged to turn data into information, describe these data effectively, and generate a professional business communication using tools found in the business workplace (Microsoft Office products normally).

Prerequisites & Notes
A grade of B- or better in either an introductory statistics course or in a single variable calculus course (STS 215 or STS 232). Must be in a graduate degree or certificate program. Exceptions to any prerequisites require permission of the MBA Program Director.

Credits: 3

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

NEW TITLE: STRATEGIC DATA ANALYSIS

To inform organizational decisions, students will learn to identify business problems, differentiate types of big data, propose a research question, and think critically about which statistical processes and applications will yield insights from the data.

Prerequisites: Graduate Standing.

Credits: 3

Reason for course modification:

Aligning to new MBA core

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

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NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

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GRADUATE PROGRAM/UNIT Graduate School of Business
COURSE DESIGNATOR MBA COURSE NUMBER 609 EFFECTIVE SEMESTER FA21
COURSE TITLE Financial Statement Analysis

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

College(s) Curriculum Committee Chair(s) (if applicable)

Faye W. Gilbert, Ph.D.
Faye W. Gilbert, Ph.D. (Jan 20, 2021 08:41 EST)

College Dean(s)

Graduate School (sign and date)

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

This course is designed to help students understand how to use and analyze financial statements for making valuation and business decisions. The focus is on the use of financial statements rather than the preparation.

Prerequisites & Notes
BUA 201 and BUA 202, or BUA 400, or equivalent; MBA student or permission from Business School Office of Graduate Programs

Credits: 3

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

NO TITLE CHANGE

This course builds on foundational accounting coursework by focusing on the understanding and interpretation of corporate financial statements. Topics typically include analysis of the primary statements via horizontal, vertical, and ratio analysis, DuPont analysis, and financial statement forecasting

Prerequisites: Graduate Standing.

Credits: 3

Reason for course modification:

Aligning to new MBA core

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

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NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

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Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT Graduate School of Business
COURSE DESIGNATOR MBA COURSE NUMBER 626 EFFECTIVE SEMESTER FA21
COURSE TITLE Management of Contemporary Organizations

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

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Leader, Initiating Department/Unit(s)

College(s) Curriculum Committee Chair(s) (if applicable)

Faye W. Gilbert, Ph.D.
Faye W. Gilbert, Ph.D. (Jan 20, 2021 08:41 EST)

College Dean(s)

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

Explores analytical perspectives to understand how individuals organize themselves in accomplishing organizational goals. Applies a managerial approach with a focus on real-life contemporary organizations. Topics include organizational structure and culture, teamwork and diversity, the organization and its environment.

Prerequisites & Notes
BUA 325 or equivalent or Business School Graduate Management Tutorial; MBA student or permission from Business School Office of Graduate Programs. Must be in a graduate degree or certificate program.

Credits: 3

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

NO TITLE CHANGE
NO DESCRIPTION CHANGE

Prerequisites: Graduate Standing.

Credits: 3

Reason for course modification:

Aligning to new MBA core

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

Graduate course proposals, modifications, or eliminations must be submitted to the Graduate School no later than the 3rd of each month. Please refer to the Graduate School website for the Curriculum Committee meetings schedule. Electronic signatures and submission is required.

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT Graduate School of Business
COURSE DESIGNATOR MBA COURSE NUMBER 651 EFFECTIVE SEMESTER FA21
COURSE TITLE Financial Management

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

College(s) Curriculum Committee Chair(s) (if applicable)

Faye W. Gilbert, Ph.D.
Faye W. Gilbert, Ph.D. (Jan 20, 2021 08:41 EST)

College Dean(s)

Graduate School (sign and date)

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

Provides a foundation in financial management by integrating topics such as measurement of risk, portfolio theory, interest rate determination, valuation, capital budgeting and cost of capital. Instructional methodology may include case studies, portfolio simulation, journal articles, presentations and spreadsheet construction, in addition to lectures.

Prerequisites & Notes

BUA 350 or equivalent or Business School Graduate Finance Tutorial; MBA student or permission from Business School Office of Graduate Programs.

Credits: 3

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

NO TITLE CHANGE

Provides a foundation in financial management by integrating topics such as measurement of risk, portfolio theory, interest rate determination, valuation, capital budgeting and cost of capital.

Prerequisites: Graduate Standing.

Credits: 3

Reason for course modification:

Aligning to new MBA core

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

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GRADUATE PROGRAM/UNIT Graduate School of Business
COURSE DESIGNATOR MBA COURSE NUMBER 670 EFFECTIVE SEMESTER FA21
COURSE TITLE Managerial Marketing

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

College(s) Curriculum Committee Chair(s) [if applicable]

Faye W. Gilbert, Ph.D.
Faye W. Gilbert, Ph.D. (Jan 20, 2021 08:41 EST)

College Dean(s)

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

BUA 670 Managerial Marketing is designed to explore both the theory and application of marketing concepts from a managerial perspective. The course emphasizes marketing decision making and marketing strategy development through case studies and marketing planning activities.

Prerequisites & Notes
BUA 270 or equivalent or Business School Graduate Marketing Tutorial; MBA student or permission from Business School Office or Graduate Programs.

Credits: 3

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

NO TITLE CHANGE

This course is designed to explore both the theory and application of marketing concepts from a managerial perspective. The course emphasizes marketing decision making and marketing strategy development through case studies and marketing planning activities.

Prerequisites: Graduate Standing.

Credits: 3

Reason for course modification:

Aligning to new MBA core

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

Graduate course proposals, modifications, or eliminations must be submitted to the Graduate School no later than the 3rd of each month. Please refer to the Graduate School website for the Curriculum Committee meetings schedule. Electronic signatures and submission is required.

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT Graduate School of Business
COURSE DESIGNATOR MBA COURSE NUMBER 649 EFFECTIVE SEMESTER FA21
COURSE TITLE Managment Policy

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

College(s) Curriculum Committee Chair(s) (if applicable)

Faye W. Gilbert, Ph.D.
Faye W. Gilbert, Ph.D. (Jan 20, 2021 08:41 EST)

College Dean(s)

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 2 (FOR COURSE MODIFICATIONS)

Current catalog description (include designator, number, title, prerequisites, credit hours):

Study of administrative practices at the strategic level of business management. Develops administrative competence in the formulation of business policy at the decision-making level through case study.

Prerequisites & Notes
BUA 605, BUA 651 and one additional 600-level BUA course; MBA students only.

Credits: 3

Proposed catalog description (include designator, number, title, prerequisites, credit hours):

NEW TITLE: STRATEGIC DECISION MAKING

This castone course studies administrative practices at the strategic level of business management. Students will develop administrative competence in the fomulation of business policy at the decision-making level through case study.

Credits: 3

Prerequisites: Completion of all core MBA courses or permission, Graduate Business Students only.

Reason for course modification:

Aligning to new MBA core

SECTION 3 FOR COURSE ELIMINATIONS

Reason for Elimination

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

APPENDIX B: NEW COURSE PROPOSAL FORM

7. MBA 637 Global Supply Chain Management
 - a. New Course Proposal Form
 - b. Proposed Syllabus

PLEASE NOTE: BUA 680 Foundations of Business Intelligence is being added to the core, however, it is an existing course. No changes are needed for BUA 680 at this time.



NEW COURSE PROPOSAL/MODIFICATION/ELIMINATION FORM FOR GRADUATE COURSES

Graduate course proposals, modifications, or eliminations must be submitted to the Graduate School no later than the 3rd of each month. Please refer to the Graduate School website for the Curriculum Committee meetings schedule. Electronic signatures and submission is required.

Please return the completed e-form with appropriate signatures and documentation to the Graduate School by saving the form to your desktop and sending as an attachment to graduate@maine.edu. Please include in the subject line 'Course Proposal' and the course designator and number.

GRADUATE PROGRAM/UNIT Graduate School of Business
COURSE DESIGNATOR MBA COURSE NUMBER 637 EFFECTIVE SEMESTER FA21
COURSE TITLE Global Supply Chain Networks

REQUESTED ACTION

NEW COURSE (check all that apply, complete Section 1, and submit a complete syllabus):

- New Course
- New Course with Electronic Learning
- Experimental

MODIFICATION (Check all that apply and complete Section 2):

- Designator Change
- Description Change
- Cross Listing (must be at least 400-level)¹
- Number Change
- Prerequisite Change
- Other (specify) _____
- Title Change
- Credit Change

ELIMINATION:

- Course Elimination

ENDORSEMENTS

Please sign using electronic signatures. If you do not already have a digital signature, please click within the correct box below and follow the on-screen instructions.

Leader, Initiating Department/Unit(s)

College(s) Curriculum Committee Chair(s) [if applicable]

Faye W. Gilbert, Ph.D.
Faye W. Gilbert, Ph.D. (Jan 20, 2021 08:41 EST)

College Dean(s)

Graduate School [sign and date]

1. Courses cross-listed below 400-level require the permission of the Graduate School.

SECTION 1 (FOR NEW COURSE PROPOSALS)

Proposed Catalog Description (include designator, number, title, prerequisites, credit hours):

This course examines supply chain concepts and current practice in the context of just-in-time production, total quality management, and continuous productivity improvement. Using practical applications, the focus is on the proactive management of movement and coordination of goods and services, and information, from raw material to end user through the value chain on a global scale. Other topics include: understanding the nature of demand for goods and services within business markets and the process of building relationships with suppliers. System-oriented managerial tools, models, and techniques are considered for their value-adding potential. 3 CR. Prerequisites: Graduate standing.

Components (type of course/used by Student Records for MaineStreet) – Multiple selections are possible for courses with multiple no-n-graded components:

- Applied Music Clinical Field Experience/Internship Research Studio
- Laboratory Lecture/Seminar Recitation Independent Study Thesis

Text(s) planned for use:

TBD

Course Instructor (include name, position, teaching load):

P. Miles or A. Kohli

Reason for new course:

A foundational course in supply chains is needed to support the new MBA core.

Does the course addition require additional department or institutional facilities, support and/or resources, e.g. new lab facilities, computer support and services, staffing (including graduate teaching assistants), or library subscriptions and resources?

- No. The department will not request additional resources for this course.
- Yes. Please list additional resources required and note how they will be funded or supported.

No additional resources are needed to support this course.

What other departments/programs are affected (e.g. course overlap, prerequisites)? Have affected departments/programs been consulted? Any concerns expressed? Please explain.

This course will not affect other departments or divisions.

How often will this course be offered? Will offering this course result in overload salary payments, either through the college or CED, either to the instructor of this course or to anyone else as a result of rearranging teaching assignments?

Spring, Summer and Fall, as needed to support incoming MBA students.



SAMPLE SYLLABUS

MBA 637: Global Supply Chain Networks

Instructor: TBD

Office Location:

Office Hrs:

Course Description: This course examines supply chain concepts and current practice in the context of just-in-time production, total quality management, and continuous productivity improvement. Using practical applications, the focus is on the proactive management of movement and coordination of goods and services, and information, from raw material to end user through the value chain on a global scale. Other topics include understanding the nature of demand for goods and services within business markets and the process of building relationships with suppliers. System-oriented managerial tools, models, and techniques are considered for their value-adding potential.

Primary Textbook: TBD

Learning Goals:

1. **Problem Solving:** Students will be able to recognize, define, analyze, and offer solutions to global supply chain problems under resource constraints
2. **Knowledge:** Students will demonstrate competency in general and advanced concepts and processes in supply chain networks
3. **Communication:** Students will demonstrate effective oral and written communication through presentations and written assignments.
4. **Global:** Students will be able to conduct business in a foreign environment by understanding and appreciating differences in business practices and cultures and conducting themselves responsibly
5. **Teamwork:** Students will learn how to develop successful teams and work with and contribute to teams in this course.

Course Outcomes

1. Describe and explain fundamentals of and and best practices in supply chain management
2. Identify and analyze challenges and opportunities for managing supply chains. Apply analytical models to global supply chain design and management.
3. Analyze the supply chain strategies that have been adopted by leading companies
4. Provide a systems approach to understand supply chain management
5. Propose business solutions in written and verbal form for problems confronting supply chain managers in specific business situations
6. Identify current issues in global supply chain management such as sustainability and risk management.

Sample Schedule

Week One:

- Overview of the Course

- Introduction to Supply Chain Management

Week Two:

- Models for Inventory Management
- Risk Pooling/ Hedging

Week Three:

- Forecasting and Network Planning
- Supply Contracts

Week Four:

- Supply Chain Integration
- Global Transportation and Distribution Strategies

Week Five:

- Value of Information
- Procurement & Outsourcing/Offshoring Strategies

Week Six:

- Coordinated Product & SC Design
- Supply Chain Relationships/ Coordination: bullwhip effect

Week Seven:

- Offshoring
- Global Supply Chain Networks: buy-sell, turnkey, transfer price and tax

Week Eight:

- Presentations

UMAINE POLICIES:

- [Student Conduct Code](#)
- [Student Handbook](#)
- [Student Accessibility Services](#)
- [Inclement Weather Policy](#)

Academic Honesty Statement: It is dishonest to cheat on exams, to copy term papers, to submit papers written by another person, to fake experimental results, or to copy or reword parts of books or articles into your own papers without appropriately citing the source. Students committing or aiding in any of these violations may be given failing grades for an assignment or for an entire course, at the discretion of the instructor. In addition to any academic action taken by an instructor, these violations are also subject to action under the University of Maine Student Conduct Code. The maximum possible sanction under the student conduct code is dismissal from the University.

Students with disabilities statement: If you have a disability for which you may be requesting an accommodation, please contact Student Accessibility Services, 121 East Annex, 581.2319, as early as possible in the term. Students who have already been approved for accommodations by SAS and have a current accommodation letter should meet with me (the instructor of the course) privately as soon as possible.

Course Schedule Disclaimer: In the event of an extended disruption of normal classroom activities, the format for this course may be modified to enable its completion within its programmed time frame. In that event, you will be provided an addendum to the syllabus that will supersede this version.

Observance of Religious Holidays/Events: The University of Maine recognizes that when students are observing significant religious holidays, some may be unable to attend classes or labs, study, take tests, or work on other assignments. If they provide adequate notice (at least one week and longer if at all possible), these students are allowed to make up course requirements as long as this effort does not create an unreasonable burden upon the instructor, department or University. At the discretion of the instructor, such coursework could be due before or after the examination or assignment. No adverse or prejudicial effects shall result to a student's grade for the examination, study, or course requirement on the day of religious observance. The student shall not be marked absent from the class due to observing a significant religious holiday. In the case of an internship or clinical, students should refer to the applicable policy in place by the employer or site.

Sexual Discrimination Reporting: The University of Maine is committed to making campus a safe place for students. Because of this commitment, if you tell a teacher about an experience of sexual assault, sexual harassment, stalking, relationship abuse (dating violence and domestic violence), sexual misconduct or any form of gender discrimination involving members of the campus, your teacher is required to report this information to the campus Office of Sexual Assault & Violence Prevention or the Office of Equal Opportunity. If you want to talk in confidence to someone about an experience of sexual discrimination, please contact these resources: For confidential resources on campus: Counseling Center: 207-581-1392 or Cutler Health Center: at 207-581-4000. For confidential resources off campus: Rape Response Services: 1-800-871-7741 or Spruce Run: 1-800-863-9909. Other resources: The resources listed below can offer support but may have to report the incident to others who can help: For support services on campus: Office of Sexual Assault & Violence Prevention: 207-581-1406, Office of Community Standards: 207-581-1409, University of Maine Police: 207-581-4040 or 911. Or see the OSAVP website for a complete list of services at <http://www.umaine.edu/osavp/>

Engineering Applications of Artificial Intelligence Certificate Program

Certificate Coordinators

Mohamad Musavi, Associate Dean, College of Engineering

Yifeng Zhu, Professor of Electrical and Computer Engineering

Rationale

Driven by rapid advances in new algorithms, big data, and computational power, Artificial Intelligence (AI), especially machine learning, is revolutionizing every aspect of our daily lives with applications in engineering, medicine, business, transportation, environment, agriculture, marine technology, and many others. According to PwC Global Artificial Intelligence study, it is expected that over the next ten years AI will contribute \$15.7 trillion dollars to the global economy boosting GDP for local economies by 26%. Deloitte's study shows that 73% of 1,089 global enterprises surveyed will prioritize investment on AI tools in the post-pandemic norm. The Burning Glass Program Insights Reports for AI and Machine Learning reflect that in Maine there were 805 job postings in the last 12 months for AI and Human/Computer Interaction at the Master's degree level, and 116 job postings in machine learning, in the same time period, with an average salary of \$114,000 with 102.5% job posting growth by 2023. More than 50% of these jobs are in the manufacturing sector where engineering applications of AI can increase productivity, resilience and adaptability of processes such as those found in automotive, aerospace, shipbuilding, microelectronics, pulp and paper, energy and utilities, and many related industries. AI will play a critical role for the growth of the Maine economy.

The University of Maine has historically developed a significant presence in AI with the development of related courses in Big Data, Artificial Neural Networks, Deep Learning, Fuzzy Logic, Robotics, and Artificial Intelligence. Although UMaine students and industry professionals have access to these courses, there is no particular program and emphasis in Maine for such an important area, especially as it relates to engineering applications. The proposed certificate program will address this shortcoming for the benefit of industry professionals and students.

Requirements

The proposed free-standing certificate program requires the completion of 12 credits (4 courses) through a combination of 400- and 500-level courses as described in the proposed course sequence section below. A maximum of one course (or 3 credits) at 400 or 500 level may be transferred from outside of UMaine to the program for credit.

Undergraduate students will earn a certificate with a minimum GPA of 2.5 in courses that count toward the certificate with a minimum grade of C in each course.

Graduate students will earn a certificate with the lowest acceptable grade of C in a maximum of one course. At least three of the completed courses (9 credits) must be at 500-level.

Working professionals who participate on a part-time basis will earn a certificate by completing each course in the sequence with a grade of C or better.

The program shall be completed within 3 years from the date of acceptance into the program.

Eligibility Criteria

Undergraduate and graduate students matriculated in any major or degree program, and industry professionals are eligible to enroll in the certificate program as long as the prerequisites for each course in the sequence are met. Applicants should typically have knowledge of up to calculus III, statistics, and engineering level programming skills. Since the majority of courses in the sequence are at 400 or 500 levels, undergraduate students would be able to complete the program.

For graduate students and professionals, an earned baccalaureate degree or its equivalent from an accredited college or university is required for admission. A minimum grade point average of 2.5 applies to all candidates and minimum TOEFL score of 80 (IbT), 6.5 (IELTS) or 60 (PTE Academic) are required for international students.

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

Educational Objectives

- Introduce fundamental knowledge of artificial intelligence (AI), including artificial neural networks, machine learning, big data, and other rule-based AI methods.
- Develop skills necessary for data analysis and preparation, and designing, implementing, and testing AI methods for different engineering applications.
- Establish suitability of AI methods for various engineering applications.

Proposed Course Sequence

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

- a. Core Courses (6 credit hours)
 1. ECE 491/591¹ Deep Learning (3 credits)
 2. ECE 490²/590 Artificial Neural Networks (3 credits) or
COS 470/570 Introduction to Artificial Intelligence (3 credits)
- b. Elective Courses (6 credit hours, any two from the list below)
 1. COS 470/570 Introduction to Artificial Intelligence (3 credits) or
ECE 490/590 Artificial Neural Networks (3 credits)
 2. ECE 533 Advanced Robotics (3 credits)
 3. ECE 577 Fuzzy Logic (3 credits)
 4. COS 475/575³ Machine Learning (3 credits)

¹ ECE 491/591 are the intended designators for ECE 498/598 (Deep Learning).

² ECE 490 is the intended dual-listed course with ECE 590 (Artificial Neural Networks).

³ COS 475/575 are the intended designators for COS 598 (Machine Learning).

Evidence of Course Sequence Meeting Educational Objectives

The major areas in this certificate program are:

- 1 Data analysis and preparation,
- 2 Designing, implementing, testing, and applying AI methods, and
- 3 Determining suitability of AI methods for different applications.

The three educational objectives are covered in the two Core Courses, listed in section (a) above, as well as Elective Courses. For example, ECE 491/591 cover a modern machine learning architecture called deep neural networks, as well as the algorithms used to train them. Students learn fundamental knowledge and gain hands-on experience of building deep learning programs on cloud or local supercomputing platforms to solve practical applications. ECE 490/590 covers topics related to data preparation, design, implementation, testing, and application of different Artificial Neural Network methods. Similarly, COS 470 covers the same topics in rule-based AI. Furthermore, the Elective courses provide more depth and breadth of knowledge related to AI methods and applications.

Faculty

The following graduate faculty have taught the proposed certificate courses:

1. Core Courses: Yifeng Zhu (ECE), Mohamad Musavi (ECE), and Roy Turner (COS)
2. Elective Courses: Rick Eason (ECE), Bruce Segee (ECE), and Salimeh Yasaei Sekeh (COS)

Mode of Delivery

While the certificate consist of on-campus and online courses, it can be completed online by taking two core courses and two out of electives courses, as identified below.

- Core courses: ECE 491/591 and ECE 490/590
- Elective courses: ECE 577, ECE 533, and COS 475/575

Timeframe for Certificate Completion

The courses in the sequence will be offered on an annual or bi-annual basis. Considering the number of credits required and the frequency of offering each course in the sequence, it is anticipated that the certificate can be completed in one to two years.

Fiscal Criteria

The courses included in the sequence will be taught as part of the regular teaching assignment for the associated instructors in their respective units. An overload compensation is not required for certificate courses.

GRADUATE COMMUNICATION REPORT



THE GRADUATE SCHOOL

Crystal Burgess

Director of Graduate Communications
crystal.burgess@maine.edu

Amanda Quiring

Administrative Support
amanda.quiring@maine.edu

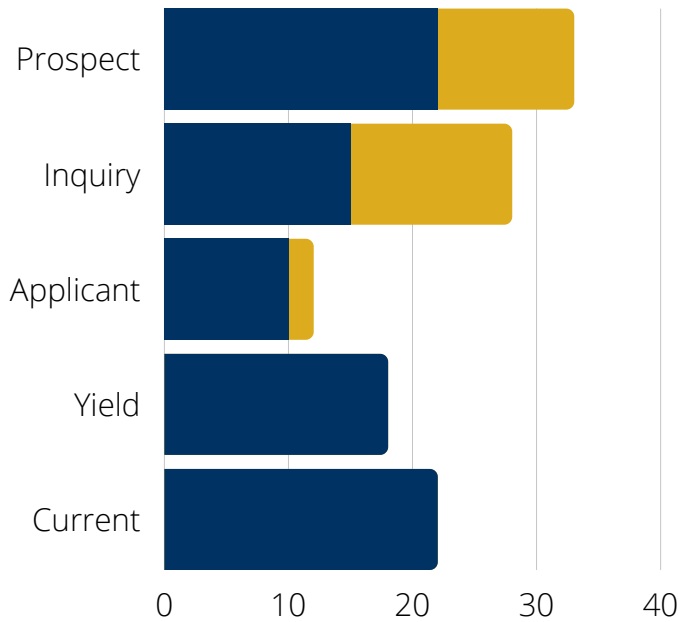
Overview

Since implementing TargetX (customer relationship management) software in 2016, the Graduate School has significantly increased the outreach to prospective students and applicants throughout the entire admission funnel. As a result, applications to the University of Maine have increased consistently for the last three years.

In 2020, the Graduate School also began implementing communications to current students and further expanded emails to non-degree students. We have already seen a direct impact to graduate students enrolling for courses earlier in fall 2020 and spring 2021 from these communications.

WE'VE SEEN GROWTH ACROSS ALL STAGES.

Our yield communications have aided in the 30% growth of first-semester graduate students in fall 2020.



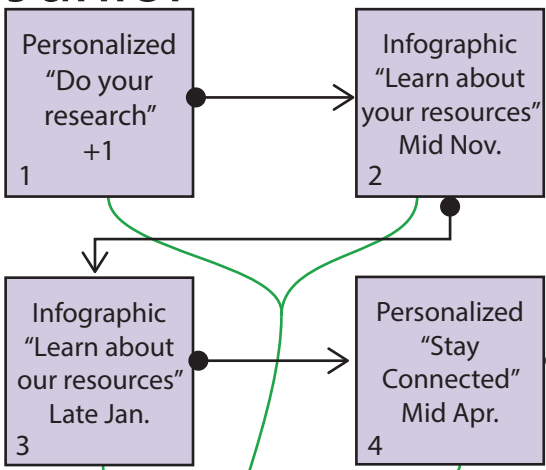
The chart at left depicts the number of email communications the Graduate School is sending out to prospective students, applicants, and current students. The section in yellow shows those being sent on behalf of academic units to grow their admission pool. In total, our CRM has more than 250 email campaigns running on a given day, some of which are from our colleagues in UMaineOnline. The flowcharts included with this report show the various campaign streams.

WHAT'S NEXT?

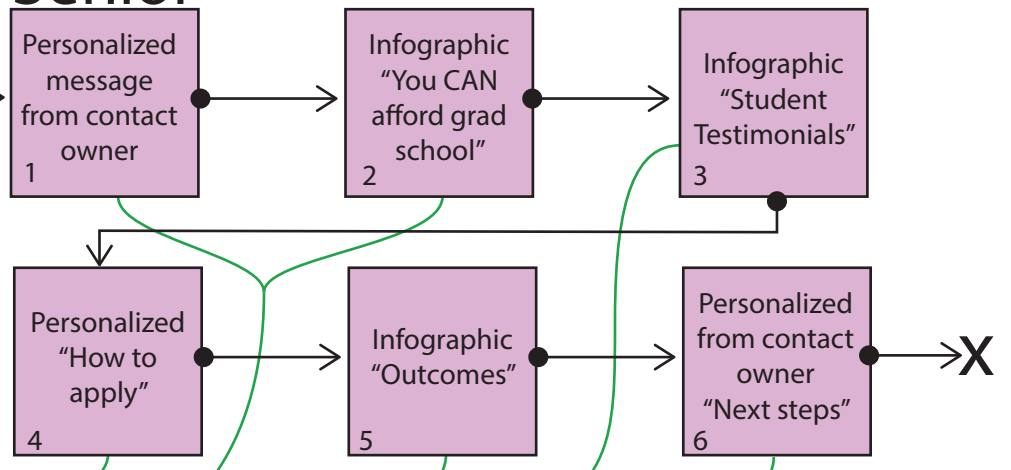
ADDITIONAL
EMAILS TO
FURTHER
REACH AND
ENGAGE OUR
STUDENT
POPULATIONS

The Graduate School plans to continue to drill down into the various student stages and develop further communications. We are also looking to continue our work with academic units interested in growing their admission pool.

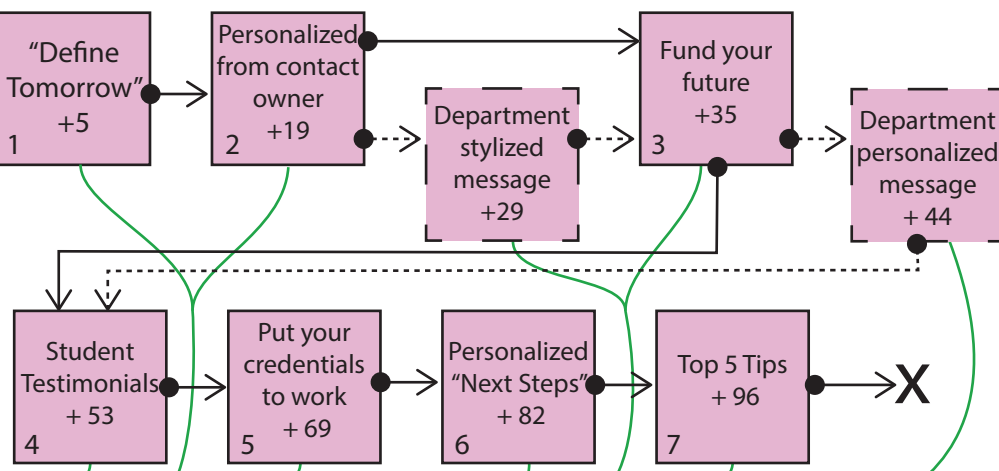
Junior



Senior



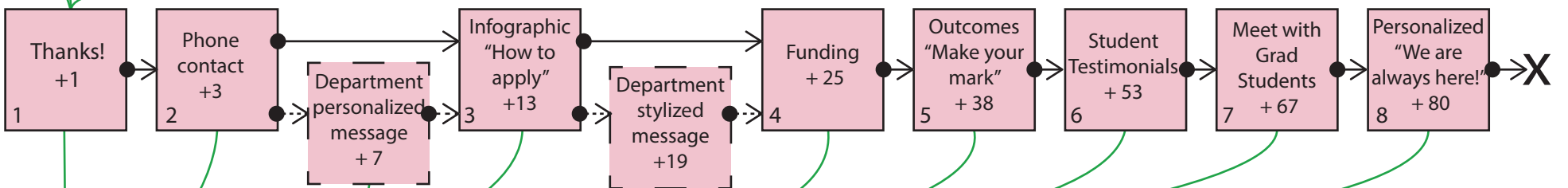
Prospect



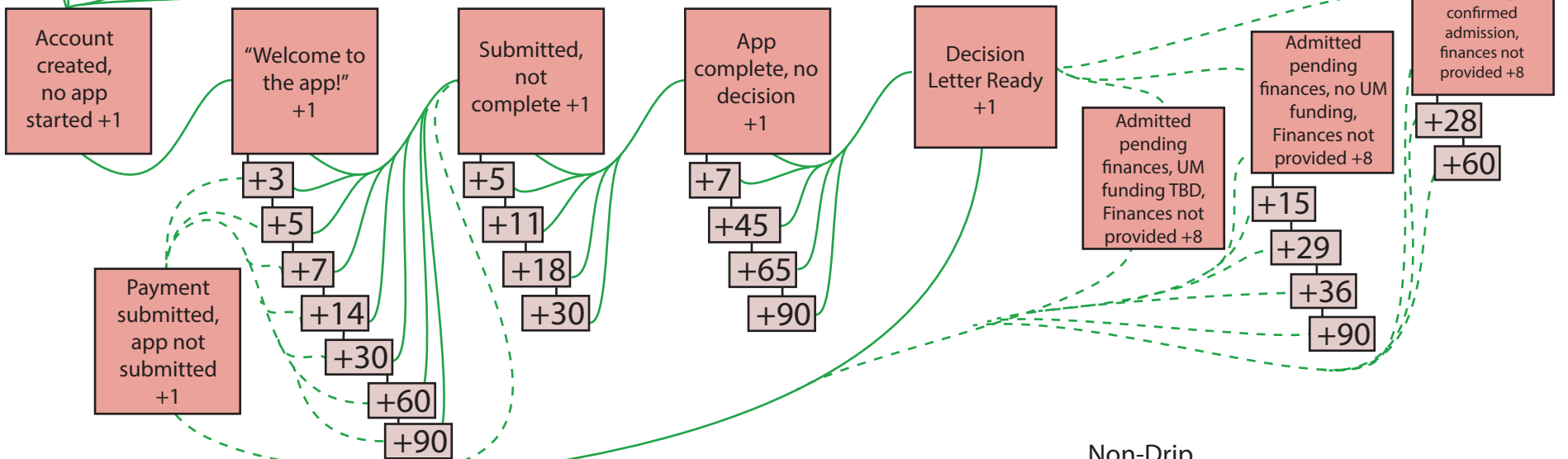
Legend

| | |
|----------|---|
| ● → or — | path of the email campaign if no action taken by recipient |
| ~ | path of the email campaign based on the organic action of the recipient |
| ● - - -> | path dependent on the existence of specific emails |
| - - - | Path less frequently traveled to existant emails |

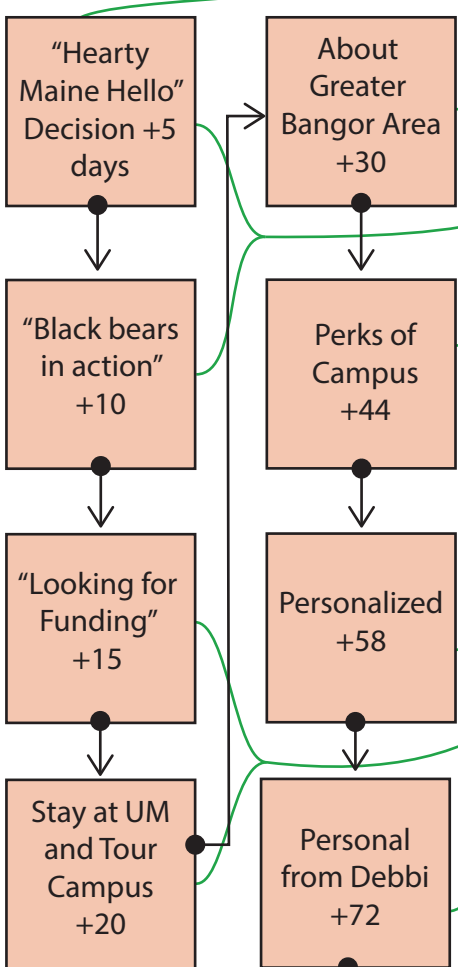
Inquiry



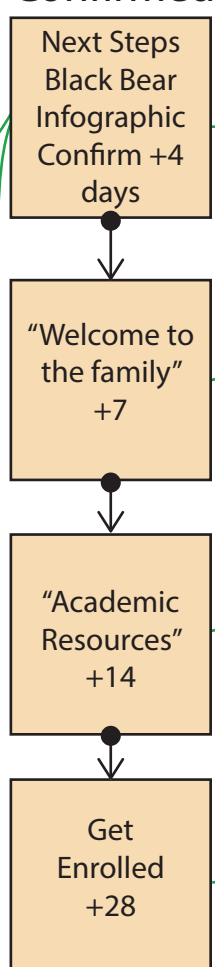
Application



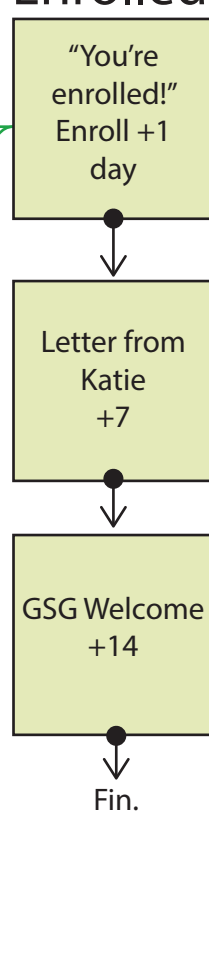
Admitted, no pending finances (Not Confirmed)



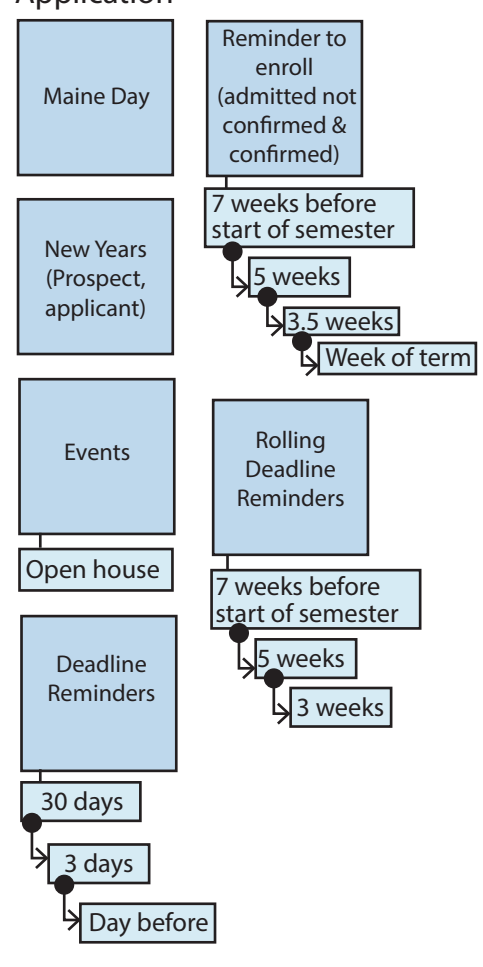
Confirmed



Enrolled



Non-Drip Application

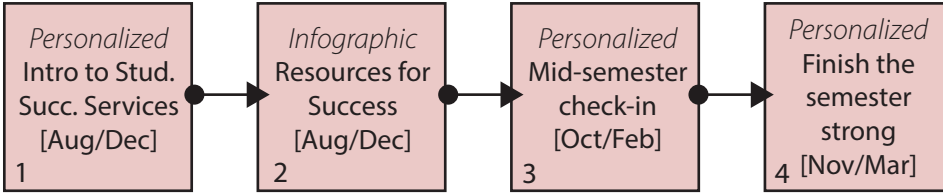


Retention Email Stream

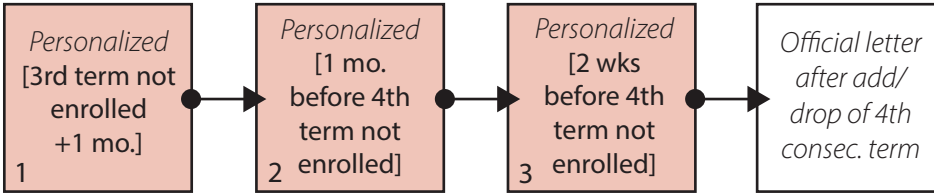
Comps Reminder

Personalized
"Must pass
within x time"
[Admit term
+4 yrs]

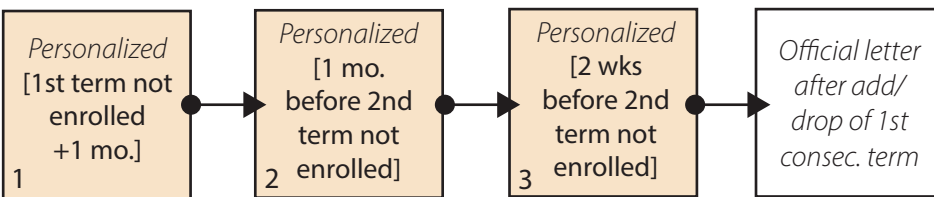
Conditional Admit Outreach



Inactive - Part Time



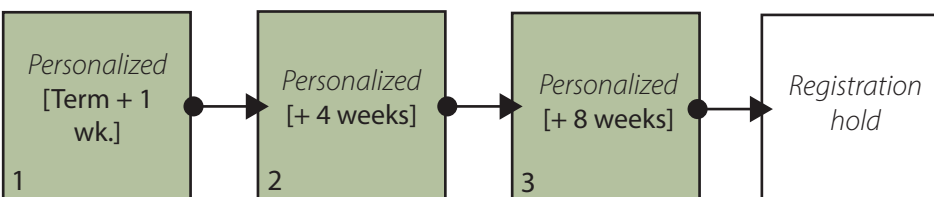
Inactive - Full Time



Leave of Absence

Personalized
[2 mos.
before sem.
start - jul,
nov, apr]

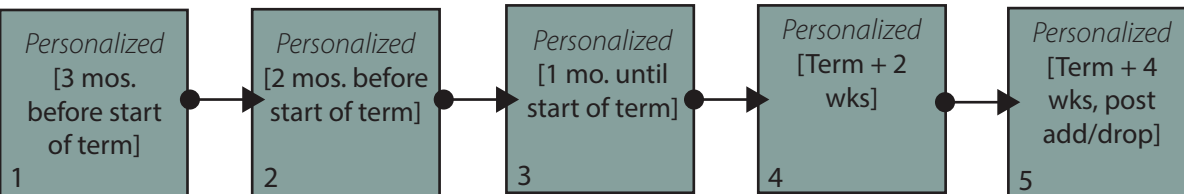
Missing Transcripts / Test Scores



Missing program of study - thesis program

Personalized
[completion
of 2nd
semester]

Registration reminders

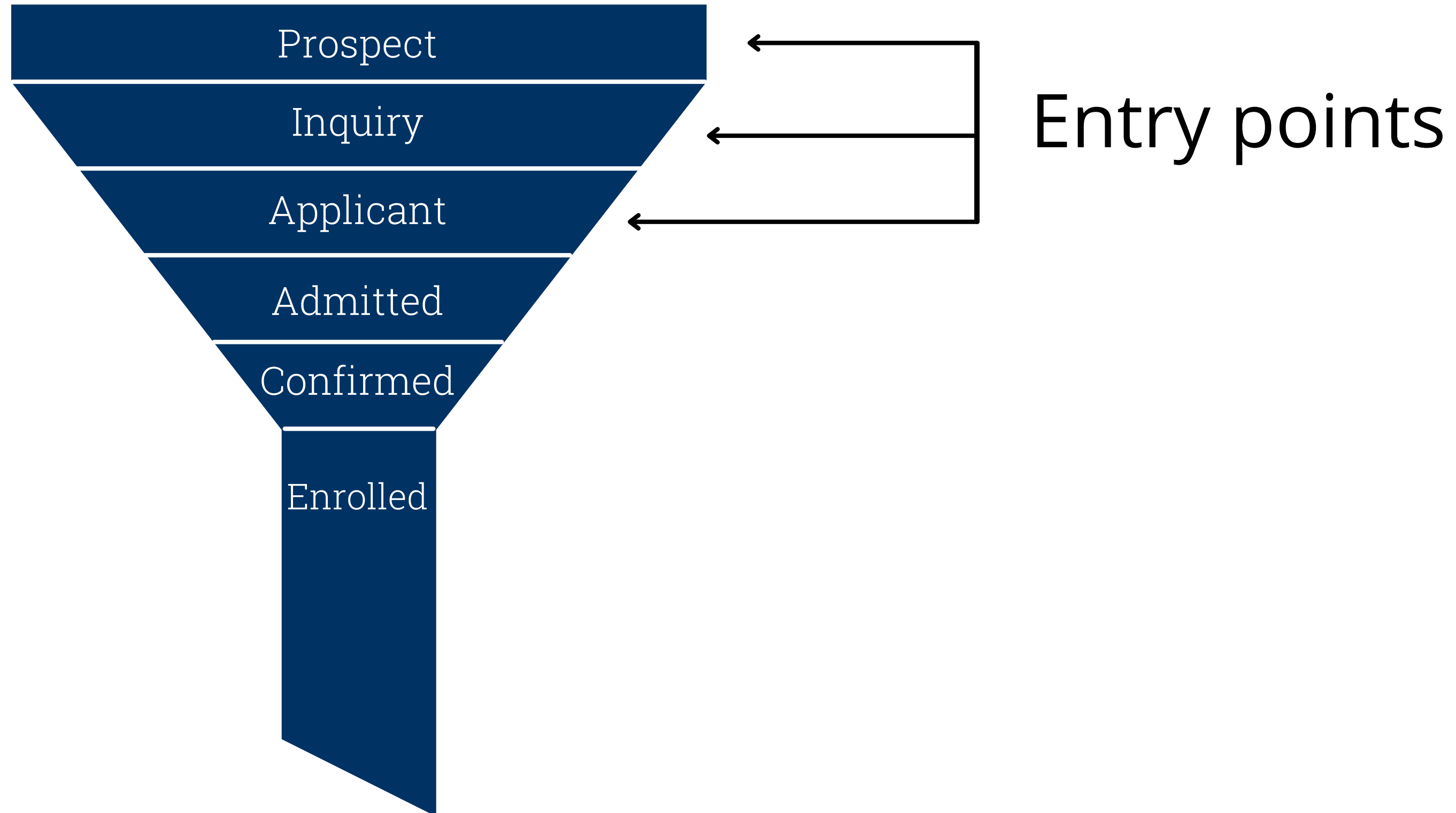




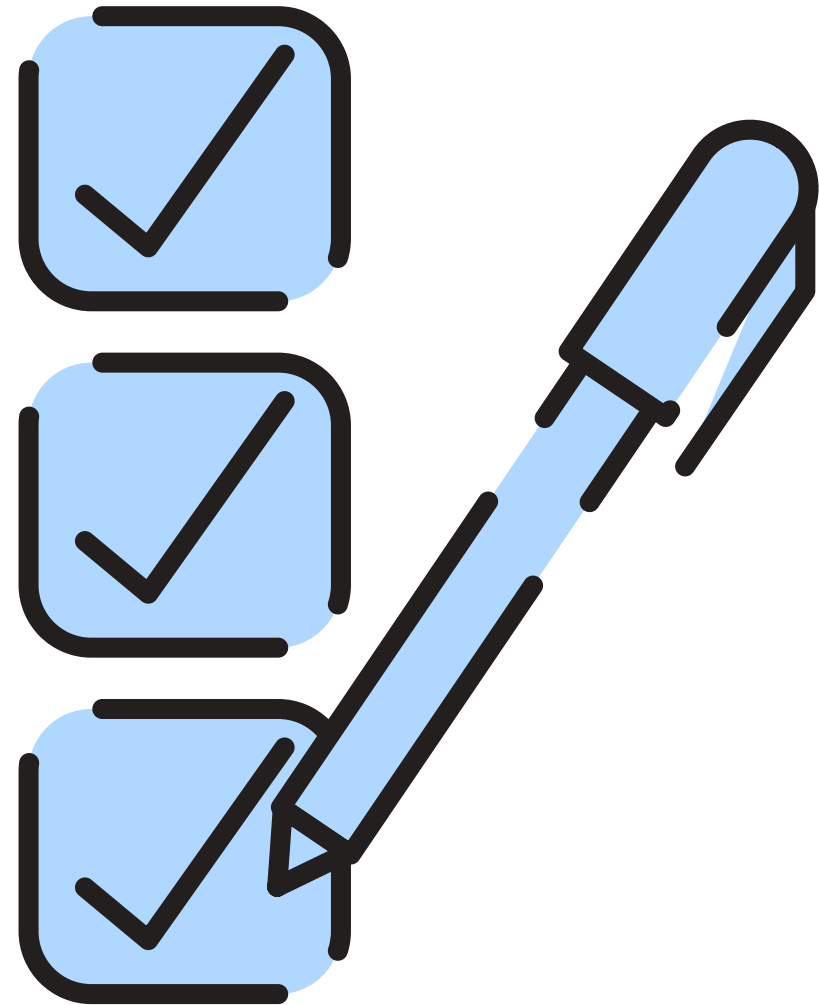
Graduate Communication Report

February 2021

Admissions Funnel



Current Students



Registration Reminders

Missing Admission Materials

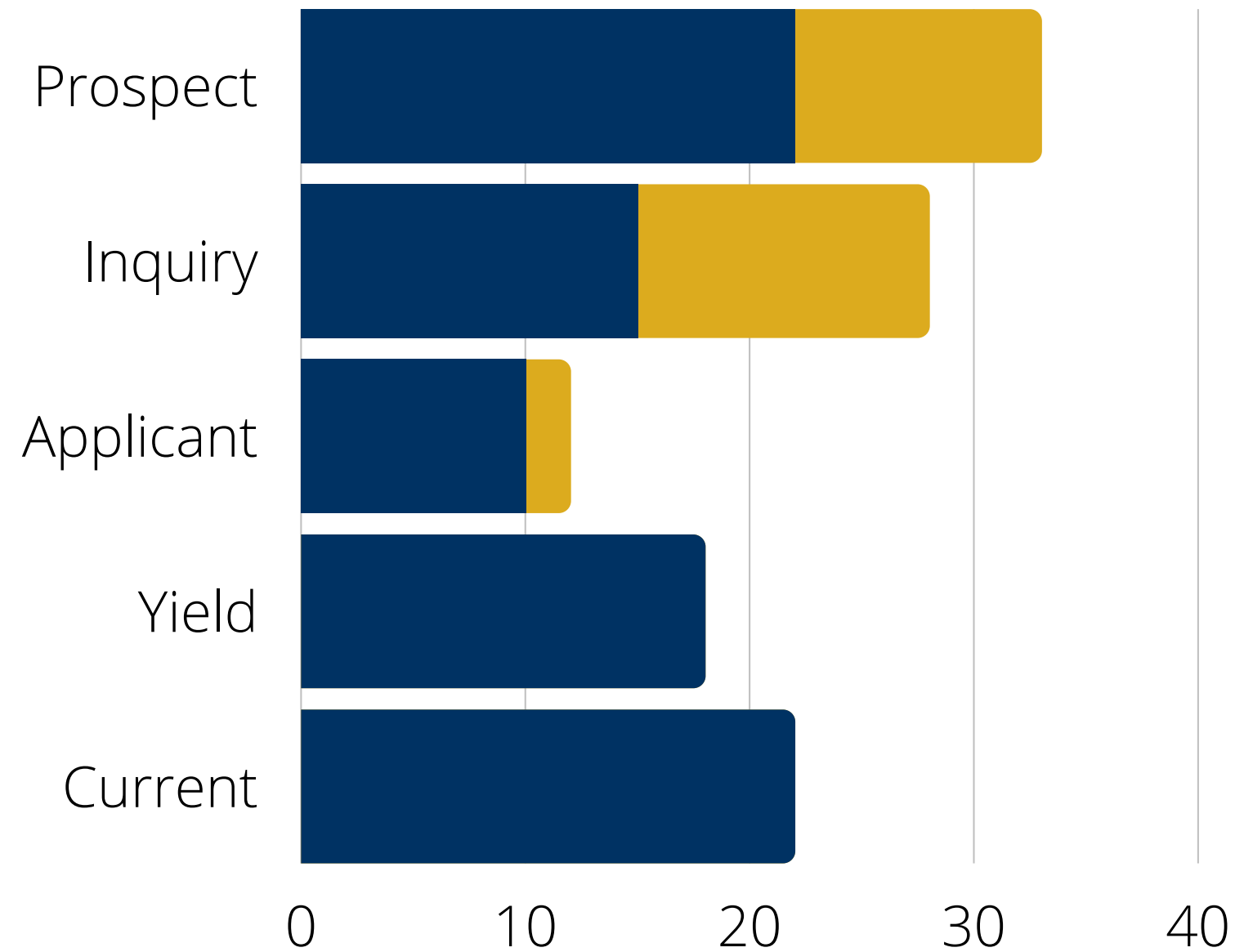
Conditional Admit Outreach

Inactive Student Warnings



By the Numbers

■
90 emails with
Graduate School
content



■
26 emails with
department specific
content

Questions?