

CURRICULUM COMMITTEE REPORT

The Curriculum Committee met on October 3rd, 2023 and is recommending the following courses to the Graduate Board for approval at its October 26th meeting.

New Courses:

DSE 503 Systems Foundations of Data Science and Engineering

MBA 654 International Finance

MBA 655 Financial Modeling

MBA 656 Financial Engineering

MEE 577 Introduction to Structural Dynamics

SFR 514 Enhanced Forest Inventory & Analysis

Modifications:

ELL 591 Multiculturalism and Diversity for English as a Second Language (ESL) Contexts

SVT 512 Survey Business Law and Policy

SWK 580 Adult and Child Psychopathology

September 27, 2023

To: Curriculum Committee:

Scott Delcourt
Will Manion
Craig Mason
Grant Miles
Josh Kelley
Deborah Rollins
Joel Anderson
Meghan Wilson Duff
Jack Campbell
Patricia Libby

Fr: Trish Perry, Administrative Specialist, Grad School

Re: Curriculum Committee, October 3rd, 2023 Via Zoom

The following courses will be presented on **Tuesday, October 3rd, 2023, at 2:00pm**

1. 2:00- 2:20 MBA 654, 655, and 656 Meghan Gardner

2. 2:20-2:30 SFR 514 Dan Hayes

3. 2:30-2:40 DSE 503 Silvia Nittel for Yifeng Zhu

4. 2:40-2:50 MEE 577 Senthil Vel

No Presentations Required

ELL 591

SVT 512

SWK 580



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207.581.3291

New Graduate Course Proposal

Academic Unit: Data Science & Engineering
Course Designator & Number: DSE 503 **Effective Semester:** Summer 2024
Course Title: Systems Foundations of Data Science and Engineering
Course Type: New Course

Proposed Catalog Description:

This course provides an introduction and overview of the underlying building blocks of big data stack architecture and infrastructure. It covers the foundational concepts and techniques of data acquisition, data storage, high-performance computing, and parallel data analysis. It provides hands-on experiments using advanced computing platforms and modern software tools to perform parallel data-intensive computing. Lec 3. (Summer.)

Course Prerequisites: DSE 502 Programming Foundations of Data Science and Engineering, or instructor's permission
Credit Hours: 3
Component: Lecture
Cross-Listed Course:

Text(s) Planned for Use:

There is no required textbook for the course. We will assign some reading papers for some topics. The following are two reference books.
1. Designing Data-Intensive Applications: The Big Ideas Behind Reliable, Scalable, and Maintainable Systems, Martin Kleppmann, Publisher: O'Reilly Media; 1st edition (April 18, 2017), ISBN-10: 1449373321
2. Data Analysis with Python and PySpark, Jonathan Rioux, Manning (March 22, 2022), ISBN-13: 978-1617297205
3. Learning spark (2nd ed.), Damji, J., Wenig, B., Das, T., Lee, D. (2020). O'Reilly Media Inc.
4. Architecting for Scale: How to Maintain High Availability and Manage Risk in the Cloud, Lee Atchison, O'Reilly Media; 2nd edition (March 24, 2020), ISBN-13: 978-1492057178
5. Hadoop: The Definitive Guide: Storage and Analysis at Internet Scale, 4th Edition by Tom White, ISBN: 978-1491901632, O'Reilly 2015

Course Instructor: Yifeng Zhu,
Libby Professor, Graduate Coordinator
Electrical and Computer Engineering

Reason for new course:

This is one of the three required courses in the data science and engineering programs.

Does this course addition require additional department or institutional facilities, support and/or resources, or library subscriptions and resources?

No. The academic unit will not request additional resources for this course. Funding will be provided through GERS.

Additional Resources:

Academic Units Affected (if any):

None

Course Frequency:

Every Summer

Can this course be repeated for credit? No

Total number of credits allowed: _____

Total number of completions allowed: _____

Can students enroll multiple times in a term? No

Mode of Instruction: Online (Asynchronous)

Endorsements

Leader: silvia.nittel@maine.edu Approved Date: 02/21/23

College CC Chair: tmcole@maine.edu Approved Date: 03/15/23

College Dean: timothy.cole@maine.edu Approved Date: 03/15/23

College Dean: _____ Date: _____

Leader: _____ Date: _____

College CC Chair: _____ Date: _____

College Dean: _____ Date: _____

DLL: patricia.libby@maine.edu Approved Date: 05/18/23

Graduate School

Date

Syllabus and Course Description
DSE 503 Systems Foundations of Data Science and Engineering
University of Maine
Summer 2023

Course Catalog Description:

This course provides an introduction and overview of the underlying building blocks of big data stack architecture and infrastructure. It covers the foundational concepts and techniques of data acquisition, data storage, high-performance computing, and parallel data analysis. It provides hands-on experiments using advanced computing platforms and modern software tools to perform parallel data-intensive computing. Lec 3. (Summer.)

Credit hours:

3

Prerequisites:

DSE 502 Programming Foundations of Data Science and Engineering or instructor's permission

Course Delivery Method:

Mode of instruction: Online

Time Options: Asynchronous

Digital Services, Hardware, Software:

- Collaboration and Communication Services: Brightspace, Google Drive and Docs
- Learning Management System: piazza
- Web or Video Conferencing Service: Slack
- Video Recording/Sharing Service: Brightspace
- Required Hardware and Software: Jupyter notebooks running in Google co-lab (which is free)

Faculty Information:

Dr. Yifeng Zhu, Libby Professor of Electrical and Computer Engineering

Office Hours: Hold online office hours through Slack.

Office Address: 271 Barrows Hall

Office Phone: 207-581-2499

Email: Yifeng.Zhu@maine.edu

Student Learning Outcomes:

Upon completing the course, students will be able to:

1. Understand the basic requirements of scalable data-intensive applications
2. Understand hierarchical stack architecture and building blocks of a data-intensive system

3. Design software applications that fully leverage modern parallel computing machines
4. Work in project teams to develop successful solutions for data-intensive applications
5. Write project reports for designing and evaluating a data-intensive system

Textbook (Optional):

There is no required textbook for the course. We will assign some reading papers for some topics. The following are two reference books.

1. ***Designing Data-Intensive Applications: The Big Ideas Behind Reliable, Scalable, and Maintainable Systems***, Martin Kleppmann, Publisher: O'Reilly Media; 1st edition (April 18, 2017), ISBN-10: 1449373321
2. ***Data Analysis with Python and PySpark***, Jonathan Rioux, Manning (March 22, 2022), ISBN-13: 978-1617297205
3. ***Learning spark (2nd ed.)***, Damji, J., Wenig, B., Das, T., Lee, D. (2020). O'Reilly Media Inc.
4. ***Architecting for Scale: How to Maintain High Availability and Manage Risk in the Cloud***, Lee Atchison, O'Reilly Media; 2nd edition (March 24, 2020), ISBN-13: 978-1492057178
5. ***Hadoop: The Definite Guide: Storage and Analysis at Internet Scale***, 4th Edition by Tom White, ISBN: 978-1491901632, O'Reilly 2015

Tentative Topics and Course Schedule (subject to change)

Week	Module	Topics
1-2	Module 1: Massive Data Storage Systems	• CPU, memory, and storage technology trends • I/O performance analysis • Storage failures and reliability • Distributed and parallel file systems • Large scale file systems
3	Module 2: Computer Performance Analysis	• Performance metrics • Measurement techniques and tools • Workload selection and benchmarking • Amdahl's law • Game of ratios
4-5	Module 3: Comparing Systems Using Sample Measurements	• Sample vs Population • Confidence interval for the mean • Approximate visual test • One-sided confidence intervals • Confidence intervals for proportions

		• Sample size for determining mean and proportions
6 - 8	Module 4: Parallel Programming	• Introduction to parallel computing • Data- vs computation-intensive applications • Multiprocessing programming • Multi-thread programming • MPI programming for Python • Point-to-point & Collective Communications, Virtual Topology • Load balancing • Synchronous and asynchronous communications
9 - 10	Module 5: Parallel Big Data Analysis	• What are the challenges of big data analysis? • Column-oriented storage systems • Hadoop • Map-reduce • Spark - Resilient Distributed Dataset (RDDs), DataFrames, Spark SQL • PySpark + Numpy + SciPy, Code optimization • Computation in large scale
11 - 12	Module 7: Large-scale ML with Keras, Pytorch, & PySpark	• Modern deep learning models • Parallel training across multiple GPUs • Model compression via distillation and quantization • Large scale distributed deep networks
13	Module 8: Architecture Design of Big Data Systems	• Designing a key-value store • Designing a news feed system • Designing a YouTube-like video system
14 - 15	Module 9: Term project presentations	

Course Grading

Quizzes for each module	20%
Class engagement via online class discussions	20%
Homework assignments	30%
Project	30%

Homework Assignments

1. Using benchmarks to measure computer, storage, and network performance.
2. Analyzing storage reliability and availability.
3. Comparing the performance of different systems.
4. Parallel computing using MPI.
5. Big data analysis based on PySpark

Project

This project topic is to design, implement, and analyze a real-world application related to data engineering and handling. The evaluation of the project consists of a proposal presentation, project presentation and/or demonstration, and a written report. It is encouraged that you will select a topic that is helpful to your current work or your current research project. You are welcome to discuss the project ideas with the instruction as early as possible.

Once you have identified your project topic, collect related research papers by searching related keywords on an academic search engine such as <http://scholar.google.com/>. Many research papers can be downloaded from <https://arxiv.org/> or IEEE and ACM digital libraries.

Project Team:

In this project, you can work in teams of up to 3 people. It is expected that a 3-person team has more impressive writeups and results than a 2-person team.

Project Parts & Milestones:

1. **Project proposal.** You are encouraged to pick your project topic as early as possible. The project proposal is a description (up to 500 words) of what you plan to do. Your proposal should include the following.
 - **Motivation:** What problem are you solving? Is this problem important?
 - **Method:** What techniques are you planning to apply or improve upon?
 - **Intended experiments and evaluations:** What datasets will you use? What experiments are you planning to run? How do you plan to evaluate your algorithms?
 - **Milestones:** What are your major tasks to accomplish this project? When is the deadline for each major task?
2. **Project presentation:** You are required to make a 20-minute offline presentation. You must record your presentation and demo and share them with the class. During the class, you are required to do a 5-minute presentation and 15 minutes of Q&A.

3. **Project report.** Your final project writeups can be at most 5 pages long (excluding appendices and references). Your project should include a section that summarizes the contributions made by each team member to the project. I will provide a guideline regarding the project report.

Project Grading Rubrics:

Requirement		Points
Design & Implementation	The difficulty level of the problem	20
	Design of the application or systems	20
	Evaluation and verification	20
	Code documentation	10
Report	Organization and logic: abstract, introduction, related work, design, evaluation and discussion, conclusion, and reference	10
	Clarity and critical thinking	10
Presentation	Appropriate use of technology during the presentation (where relevant). The presentation of the thesis/project work is clear and well-organized. Responds to questions in a poised, articulate, and professional manner.	10
Total		100

Course Policies

- This class will be taught asynchronously with pre-recorded videos.
- The courses will involve homework, exam, quizzes, and project. No make-up work is accepted.
- Students will have a total of five free late days for homeworks. After free-five late days, the penalty will be 20% per day, including the weekends.

Campus Policies

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 the instructor 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 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 faculty or staff member who is deemed a "responsible employee" about sexual discrimination, they are required to report this information to Title IX Student Services or the Office of Equal Opportunity.

Behaviors that can be "sexual discrimination" include sexual assault, sexual harassment, stalking, relationship abuse (dating violence and domestic violence), sexual misconduct, and gender discrimination. Therefore, all of these behaviors must be reported.

Why do teachers have to report sexual discrimination?

The University can better support students in trouble if we know about what is happening. Reporting also helps us to identify patterns that might arise – for example, if more than one person reports having been assaulted or harassed by the same individual.

What will happen to a student if a teacher reports?

An employee from Title IX Student Services or the Office of Equal Opportunity will reach out to you and offer support, resources, and information. You will be invited to meet with the employee to discuss the situation and the various options available to you.

If you have requested confidentiality, the University will weigh your request that no action be taken against the institution's obligation to provide a safe, nondiscriminatory environment for all students. If the University determines that it can maintain confidentiality, you must understand that the institution's ability to meaningfully investigate the incident and pursue disciplinary action, if warranted, may be limited. There are times when the University may not be able to honor a request for confidentiality because doing so would pose a risk to its ability to provide a safe, nondiscriminatory environment for everyone. If the University determines that it cannot maintain confidentiality, the University will advise you, prior to starting an investigation and, to the extent possible, will share information only with those responsible for handling the institution's response

The University is committed to the well-being of all students and will take steps to protect all involved from retaliation or harm.

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: 207-581-1406, University of Maine Police: 207-581-4040 or 911.**

[Visit the Title IX Student Services website at \[umaine.edu/titleix/\]\(http://umaine.edu/titleix/\) for more information.](http://umaine.edu/titleix/)



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New Graduate Course Proposal

Academic Unit: Business
Course Designator & Number: MBA 654
Effective Semester: Spring 2024
Course Title: International Finance
Course Type: New Course

Proposed Catalog Description:

This course provides students with a solid introduction to the very important field of international finance. It offers a rigorous examination of the financial management of multinational corporations and international financial markets. Intensive coverage of foreign exchange markets and methods of managing exchange rate risk are emphasized. Topics include currency derivative markets and risk management, arbitrage and international parity conditions, market efficiency, short- and long-term asset management, and capital budgeting.

Course Prerequisites: Prerequisites & Notes: MBA 651; Graduate School of Business degree program students, or permission from GSB.
Credit Hours: 3 Credits: 3
Component: Lecture
Cross-Listed Course:

Text(s) Planned for Use:
Various Text Required, see Syllabi attached

Course Instructor: Various Professors; see Syllabi attached

Reason for new course:

The purpose of these new courses is to bring our Finance Concentration up to the appropriate learning and rigor level to make our program competitive with other known MBA programs.

Does this course addition require additional department or institutional facilities, support and/or resources, or library subscriptions and resources?

No. The academic unit will not request additional resources for this course

Additional Resources:

Academic Units Affected (if any):

This course is part of a joint program between the Maine Business School and the University of Southern Maine's School of Business. It is all housed in the Graduate School of Business.

Course Frequency:

This course will be run one time per year, on a rotating schedule.

Can this course be repeated for credit? ^{No} _____

Total number of credits allowed: _____

Total number of completions allowed: _____

Can students enroll multiple times in a term? ^{Yes} _____

Mode of Instruction: ^{Online (Asynchronous)} _____

Endorsements

Leader: ^{patti.miles@maine.edu} _____ ^{Approved} _____ **Date:** ^{05/09/23} _____

College CC Chair: ^{pankaj.agrawal@maine.edu} _____ ^{Approved} _____ **Date:** ^{08/30/23} _____

College Dean: ^{norman.oreilly@maine.edu} _____ ^{Approved} _____ **Date:** ^{08/31/23} _____

Leader: _____ **Date:** _____

College CC Chair: _____ **Date:** _____

College Dean: _____ **Date:** _____

DLL: ^{patricia.libby@maine.edu} _____ ^{Approved} _____ **Date:** ^{08/31/23} _____

Graduate School

Date

Maine Graduate School of Business

MBA 654: International Finance

Instructor: Instructor varies

Email:

Office location and hours:

Office phone:

Modality: Online, asynchronous; 8-week session.

Prerequisites: MBA 651; Graduate School of Business degree program students, or permission from GSB.

Credits: 3

Course description: This course provides students with a solid introduction to the very important field of international finance. It offers a rigorous examination of and the financial management of the multinational corporation and of international financial markets. Intensive coverage of foreign exchange markets and methods of managing exchange rate risk are emphasized. Topics include currency derivative markets and risk management, arbitrage and international parity conditions, market efficiency, short- and long-term asset management, and capital budgeting.

The broad topics covered are:

- Overview of terminology and other requisites
- Exchange rates, arbitrage, and cross-exchange rates
- Determinants of exchange rates
- Interest rate parity, the international Fisher effect, and purchasing power parity
- Sources of exchange rate risk and methods for hedging that risk
- International stocks and American depositary receipts

Course Objectives: When this course is completed, the goal is for students to be:

- Able to define the terminology of international finance,
- Conversant in topics related to international finance,
- Able to identify the factors that influence exchange rates,
- Understand hedging techniques to mitigate exchange rate risk,
- Understand what an ADR is, why it is issued, and what determines its price, and
- Explain factors that might influence foreign stock prices.

Course materials:

The required text is Madura, Jeff (2017). *International Financial Management, 13ed*, Cengage Learning, loose-leaf with MindTap. ISBN: 9781337587211.

- Scientific calculator capable of handling exponents.
- Other materials will be available on Brightspace at appropriate times during the semester. You can access Brightspace at courses.maine.edu.

Course grades and grading criteria:

Course grades are determined by performance on homework and a quiz for each chapter and an international investing project. Late work will not be accepted. There is no final exam for this course. Course grades will be based on a weighted average of points as follows:

Course Grade = Homework average (30%) + Quiz average (35%) + Project (35%)

Your grade in this course will be assigned according to the following scale.

Weighted Average	Grade
93.5 – 100	A
89.5 – 93.4	A-
86.5 – 89.4	B+
83.5 – 86.4	B
79.5 – 83.4	B-
76.5 – 79.4	C+
73.5 – 76.4	C
69.5 – 73.4	C-
66.5 – 69.4	D+
63.5 – 66.4	D
59.5 – 63.4	D-
Below 59.4	F

Campus Policies

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, or generated by software or systems without the explicit approval of the instructor, 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 (*Date Issued: September 1, 2020): <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, um.sas@maine.edu, 581.2319, as early as possible in the term. Students may begin the accommodation process by submitting an accommodation request form online and uploading documentation at <https://umaine-accommodate.symplicity.com/public/accommodation/>. Once students meet with SAS and eligibility has been determined, students submit an online request with SAS each semester to activate their approved accommodations. SAS creates an accessibility letter each semester which informs faculty of potential course access and approved reasonable accommodations; the letter is sent directly to the course instructor. 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 (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:

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 Title IX Student Services website for a complete list of services (open in a new window) . Also, Student Wellness Resource Center (opens in a new window).



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New Graduate Course Proposal

Academic Unit: Business
Course Designator & Number: MBA 655 **Effective Semester:** Spring 2024
Course Title: Financial Modeling
Course Type: New Course

Proposed Catalog Description:

Introduces principles and techniques for building financial models in an uncertainty framework. Finance topics are drawn from a variety of areas: personal financial planning, investments, derivatives, and corporate finance. The course will integrate financial, accounting, and statistical concepts and techniques to construct financial models and to perform analyses using MS Excel. Emphasizes the application of financial modeling techniques in identifying and implementing business solutions. The course will be of special interest to students seeking more hands-on experience in constructing financial models.

Prerequisites & Notes:

Course Prerequisites: MBA 651; Graduate School of Business degree program students, or permission from GSB

Credit Hours: 3 Credits: 3

Component: Lecture

Cross-Listed Course:

Text(s) Planned for Use:

Various Text Required, see Syllabi attached

Various Professors; see Syllabi attached

Course Instructor:

Reason for new course:

The purpose of these new courses is to bring our Finance Concentration up to the appropriate learning and rigor level to make our program competitive with other known MBA programs.

Does this course addition require additional department or institutional facilities, support and/or resources, or library subscriptions and resources?

No. The academic unit will not request additional resources for this course

Additional Resources:

Academic Units Affected (if any):

This course is part of a joint program between the Maine Business School and the University of Southern Maine's School of Business. It is all housed in the Graduate School of Business.

Course Frequency:

This course will be run one time per year, on a rotating schedule.

Can this course be repeated for credit? No

Total number of credits allowed: _____

Total number of completions allowed: _____

Can students enroll multiple times in a term? Yes

Mode of Instruction: Online (Asynchronous)

Endorsements

Leader: patti.miles@maine.edu Approved 05/09/23

College CC Chair: pankaj.agrawal@maine.edu Approved 08/29/23

College Dean: norman.oreilly@maine.edu Approved 08/29/23

Leader: _____ **Date:** _____

College CC Chair: _____ **Date:** _____

College Dean: _____ **Date:** _____

DLL: patricia.libby@maine.edu Approved 08/29/23

Graduate School

Date

Maine Graduate School of Business

MBA 655: Financial Modeling

Instructor: Instructor varies

Email:

Office location and hours:

Office phone:

Modality: Online, asynchronous; 8-week session.

Prerequisites: MBA 651; Graduate School of Business degree program students, or permission from GSB.

Credits: 3

Course description: This course introduces principles and techniques for building financial models in an uncertainty framework. Finance topics are drawn from a variety of areas: personal financial planning, investments, derivatives, and corporate finance. The course will integrate financial, accounting, and statistical concepts and techniques to construct financial models and to perform analyses using MS Excel. Emphasizes the application of financial modeling techniques in identifying and implementing business solutions. The course will be of special interest to students seeking more hands-on experience in constructing financial models.

Course materials:

- The required textbooks are:
 - Craig W. Holden (2015). *Excel Modeling in Corporate Finance*, 5th ed. Pearson. ISBN: 978-0-205-98725-2.
 - Craig W. Holden (2015). *Excel Modeling in Investments*, 5th ed. Pearson. ISBN: 978-0-205-98724-5.
- Microsoft Excel 2013 (2007+ will suffice, but there are slight differences with each subsequent version. Your textbook uses 2013.)
- Other materials and/or homework answer keys will be available on Brightspace at appropriate times during the semester. You can access Brightspace at courses.maine.edu.
- A computer with broadband Internet access.

Course grades and grading criteria:

I will grade these on three criteria, unless noted otherwise: (1) completion (approx. 35%), (2) correctness (approx. 35%), and (3) formatting and presentation (approx. 30%). The grading criteria emphasize the importance of not only having the correct answer but also presenting information in a clear and concise manner.

As this is an applied finance course, there will not be any quizzes or exams.

1. Homework (70%). This will be Excel-based and may contain written components. If there is a written part, you *must* submit a separate Word document. Homework is due the Sunday following the lecture and should be emailed to me as an attachment. Your overall homework grade will be the average of individual homework assignment scores. I will drop the lowest homework grade, which allows for a missed assignment.
2. Case study (30%). This assignment will contain Excel-based *and* written components. The case study should be emailed to me, as your regular homework.

Your grade in this course will be assigned according to the following scale.

Weighted Average	Grade
93.5 – 100	A
89.5 – 93.4	A-
86.5 – 89.4	B+
83.5 – 86.4	B
79.5 – 83.4	B-
76.5 – 79.4	C+
73.5 – 76.4	C
69.5 – 73.4	C-
66.5 – 69.4	D+
63.5 – 66.4	D
59.5 – 63.4	D-
Below 59.4	F

Campus Policies

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, or generated by software or systems without the explicit approval of the instructor, 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 (*Date Issued: September 1, 2020): <https://www.maine.edu/board-of-trustees/policy-manual/section-314/>

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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.

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Sexual Discrimination Reporting:

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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 Title IX Student Services website for a complete list of services \(open in a new window\)](#). Also, [Student Wellness Resource Center \(opens in a new window\)](#).



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New Graduate Course Proposal

Academic Unit: Business
Course Designator & Number: MBA 656
Effective Semester: Spring 2024
Course Title: Financial Engineering
Course Type: New Course

Proposed Catalog Description:

This course explores the markets and valuation for options, futures, and swap contracts. Hedging and speculating strategies using derivatives are covered. Financial engineering techniques are developed that can adjust the risk and return offered by traditional assets. Topics include cash and carry, option pricing models, forward contracts, stock futures, interest rate futures, stock index futures, stock options, interest rate options, and various swap contracts.

Course Prerequisites: Prerequisites & Notes: MBA 651: Graduate School of Business degree program students, or permission from GSB
Credit Hours: 3 Credits: 3
Component: Lecture
Cross-Listed Course:
Text(s) Planned for Use:
Various Text Required, see Syllabi attached

Course Instructor: Various Professors; see Syllabi attached

Reason for new course:

The purpose of these new courses is to bring our Finance Concentration up to the appropriate learning and rigor level to make our program competitive with other known MBA programs.

Does this course addition require additional department or institutional facilities, support and/or resources, or library subscriptions and resources?

No. The academic unit will not request additional resources for this course

Additional Resources:

Academic Units Affected (if any):

This course is part of a joint program between the Maine Business School and the University of Southern Maine's School of Business. It is all housed in the Graduate School of Business.

Course Frequency:

This course will be run one time per year, on a rotating schedule.

Can this course be repeated for credit? No

Total number of credits allowed: _____

Total number of completions allowed: _____

Can students enroll multiple times in a term? Yes

Mode of Instruction: Online (Asynchronous)

Endorsements

Leader: patti.miles@maine.edu Approved 05/09/23

College CC Chair: pankaj.agrawal@maine.edu Approved 05/09/23

College Dean: norman.oreilly@maine.edu Approved 05/09/23

Leader: _____ **Date:** _____

College CC Chair: _____ **Date:** _____

College Dean: _____ **Date:** _____

DLL: patricia.libby@maine.edu Approved 05/10/23

Graduate School

Date

Maine Graduate School of Business

MBA 656 Financial Engineering

Instructor: Instructor varies

Email:

Office location and hours:

Office phone:

Modality: Online, asynchronous; 8-week session.

Prerequisites: MBA 651; Graduate School of Business degree program students, or permission from GSB.

Credits: 3

Course Description: This course explores the markets and valuation of options, futures, and swaps contracts. Hedging and speculating techniques using derivatives are covered. Financial engineering techniques are developed that can adjust the risk and return offered by traditional assets. Topics include cash and carry, option pricing models, forward contracts, stock futures, interest rate futures, stock index futures, stock options, interest rate options, and various swap contracts.

Required Material

Text: Options, Futures, and Other Derivatives, John Hull, 2022, ISBN: 978-0-13-693997-9, Pearson.

Grading Allocation

Quizzes	50%
Attendance	20
Assignments in Stocktrak using in derivatives	30 (you need an overall passing grade on the assignments to pass the course.)

Any curve, if appropriate, will be applied at the end of the semester based on overall course grades provided your attendance is good: in other words, you miss no more than two classes

during the semester. I usually drop one quiz grade in computing the course average. There are no make-up quizzes. This grading structure is designed to reward students who attend class. No phone, no communication, no notes, no books, no notes (except for a formula sheet provided by the professor are to be used during any quiz or the final exam.

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New Graduate Course Proposal

Academic Unit: Mechanical Engineering
Course Designator & Number: MEE 577 **Effective Semester:** Spring 2024
Course Title: Introduction to Structural Dynamics (Preferred/Short Title: Structural Dynamics)
Course Type: New Course

Proposed Catalog Description:

Introduction to the fundamental and applied aspects of structural dynamics. Axial, flexural and torsional vibration characteristics of continuous structural members and machine elements using analytical and numerical methods. Finite element analysis of the steady state and transient response of structural elements and systems. Application of theoretical and numerical techniques to the dynamic analysis of mechanical and aerospace structural members. This course is being cross listed with MEE 477. These course can not both be taken for degree credit.

Course Prerequisites: MEE 251, MEE 270, MAT 258 and MEE 370, or by permission
Credit Hours: 3
Component: Lecture
Cross-Listed Course: MEE 477 Introduction to Structural Dynamics (Preferred/Short Title: Structural Dynamics)
Text(s) Planned for Use:
Rao S.S., Vibration of Continuous Systems, 2nd edition, Wiley, 2019.

Course Instructor: Senthil S. Vel, Professor of Mechanical Engineering, 50% Teaching appointment, Typical teaching load is 6 credits per semester.

Reason for new course:

Continuous structural elements are used in applications such as aircraft structures and turbomachinery and it is important for engineers to understand their dynamic response. While the two existing vibrations courses MEE 471 Mechanical Vibrations and 573 Advanced Vibrations I provide students with an in-depth understanding of discrete systems, the mechanical engineering department currently does not offer a course that deals with the dynamics of continuous structural members. The proposed course is the outcome of MEE faculty discussions on the need for a graduate-level course that will introduce students to the dynamic analysis of structural elements using analytical as well as numerical techniques.

Does this course addition require additional department or institutional facilities, support and/or resources, or library subscriptions and resources?

No. The academic unit will not request additional resources for this course

Additional Resources:

Academic Units Affected (if any):

The Civil Engineering Department offers a graduate level course CIE 545 Structural Dynamics. CIE 545 covers the analysis of discrete systems of interest to civil engineers while the proposed course covers continuous structural members and focuses on applications of interest to mechanical and aerospace engineers. Furthermore, CIE 545 does not include numerical techniques which is an important part of the proposed course. As such, there is very little overlap between the two courses.

Dr. Roberto Lopez Anido, Professor of Civil Engineering, has been consulted since he teaches CIE 545 Structural Dynamics. He has reviewed the syllabus for the proposed course and has indicated that the proposed course does not overlap with CIE 545. He feels that the two courses are complimentary and could benefit students who are interested in the field of structural dynamics. Dr. Shaleen Jain, Chair of Civil Engineering, is also aware of the proposed course and has not expressed any concerns.

Course Frequency:

Typically this course will be offered annually, but the frequency will depend on student interest, research and curricular needs. This course will be part of the regular teaching load of a faculty member and overload salary payments will not be requested.

Can this course be repeated for credit? No

Total number of credits allowed: _____

Total number of completions allowed: _____

Can students enroll multiple times in a term? No

Mode of Instruction: Distance Synchronous Learning

Endorsements

masoud.raisrohani@maine.edu Approved 12/15/22
Leader: _____ Date: _____

masoud.raisrohani@maine.edu Approved 03/28/23
College CC Chair: _____ Date: _____

musavi@maine.edu Approved 03/30/23
College Dean: _____ Date: _____

Leader: _____ Date: _____

College CC Chair: _____ Date: _____

College Dean: _____ Date: _____

patricia.libby@maine.edu Approved 06/13/23
DLL: _____ Date: _____

Graduate School

Date

MEE 477/577 Introduction to Structural Dynamics

Short Title: Structural Dynamics 3 credits

Course Description	Introduction to the fundamental and applied aspects of structural dynamics. Axial, flexural and torsional vibration characteristics of continuous structural members and machine elements using analytical and numerical methods. Finite element analysis of the steady state and transient response of structural elements and systems. Application of theoretical and numerical techniques to the dynamic analysis of mechanical and aerospace structural members. This course is being cross listed with MEE 477. These course can not both be taken for degree credit.		
Prerequisites	-MEE 251, MEE 270, MAT 258 and MEE 370, or by permission		
Instructor	-Senthil Vel, Department of Mechanical Engineering		
Textbook	-Rao S.S., Vibration of Continuous Systems, 2nd edition, Wiley, 2019		
Software	-Matlab and a free student edition of a finite element package.		
Learning Outcomes	-By the end of this course, students will be able to 1. [MEE 477/577] Demonstrate proficiency with key concepts in structural dynamics 2. [MEE 577] Formulate mathematical models and solve the equations of motion for continuous systems 3. [MEE 477/577] Evaluate the vibration characteristics of structural members using analytical techniques 4. [MEE 477/577] Analyze the dynamic response of continuous structural members and machine elements using the finite element method		
Assessments [†]	Assignments and Projects (50%) Midsemester Exam (25%) Final Exam (25%)		
Letter Grades	$A \geq 94$	$90 \leq A- < 94$	$87 \leq B+ < 90$
	$83 \leq B < 87$	$80 \leq B- < 83$	$77 \leq C+ < 80$
	$73 \leq C < 77$	$70 \leq C- < 73$	$67 \leq D+ < 70$
	$63 \leq D < 67$	$60 \leq D- < 63$	$F < 60$
References	Hodges D.H., Pierce G.A., Introduction to Structural Dynamics and Aeroelasticity, 2nd edition, Cambridge University Press, 2011. Friswell M.I., Penny J.E.T., Garvey S.D., Lees A.W., Dynamics of Rotating Machines, Cambridge University Press, 2010. Steinberg D.S., Vibration Analysis for Electronic Equipment, 3rd edition, Wiley-Interscience, 2000.		

[†] Students enrolled in MEE 577 will be expected to do additional assignment problems and an advanced project that will require independent reading of the textbook and references. The exams will be different for the 400 and 500-level sections and the two sections will be graded independently. Students who have taken MEE 477 cannot take MEE 577.

Course Outline

UNIT 1. INTRODUCTION TO VIBRATION ANALYSIS

- Free and forced vibration of single degree of freedom systems
- Vibration of multi degree of freedom systems

UNIT 2. AXIAL VIBRATION

- Equation of motion for axial vibration
- Natural frequencies and mode shapes
- Free vibration response due to initial excitation
- Forced axial vibrations

UNIT 3. FLEXURAL VIBRATION

- Equation of motion: Euler-Bernoulli theory
- Solution for the free vibration of beams
- Frequencies and mode shapes for different boundary conditions
- Forced lateral vibration
- Influence of rotary inertia and transverse shear deformation

UNIT 4. TORSIONAL VIBRATION

- Equation of motion for torsional vibration
- Free vibration of uniform shafts
- Torsional vibration with external excitations
- Coupled flexure-torsion vibration

UNIT 5. FINITE ELEMENT ANALYSIS

- Finite element discretization of continuous structural members
- Element stiffness and mass matrices
- Assembly of the global stiffness and mass matrices
- Validation of numerical natural frequencies and mode shapes of bars, beams and shafts using analytical solutions
- Mode participation factors, effective mass and strain energy
- Numerical integration in time and the transient response of structural members and machine elements
- Structural dynamics of mechanical systems using a commercial finite element package

UNIT 6. APPLICATION OF STRUCTURAL DYNAMICS[§]

- Rotating machinery
- Aerospace structures
- Electronic equipment
- Experimental modal analysis

§ Two to three application areas will be selected for inclusion based on student interest

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New Graduate Course Proposal

Academic Unit: Forest Resources

Course Designator & Number: SFR 514 **Effective Semester:** Spring 2024

Course Title: Enhanced Forest Inventory & Analysis

Course Type: New Course

Proposed Catalog Description:

Provides the foundational knowledge and practical skills required to access and apply the key data streams and analysis methods to understand, quantify, and model the range of essential attributes used in enhanced forest inventory systems that inform resource management and planning. Students will work with data covering multiple scales of analysis, including from field plots, inventory plot networks, and airborne and spaceborne imagery and LiDAR.

Course Prerequisites: SFR 400 – Applied Geographic Informational Systems and SFR 406 – Remote Sensing of the Forest Environment, or equivalents, or permission.

Credit Hours: 3

Component: Lecture

Cross-Listed Course:

Text(s) Planned for Use:
on-line resources

Course Instructor: Dan Hayes, Associate Professor, School of Forest Resources. 50% teaching appointment, teaches SFR 406 – Remote Sensing 3 cr

Reason for new course:

A Graduate Certificate in Forest Resources is being proposed with the goal of providing workforce education needed by the forest resource professionals to meet evolving expectations of employers and society. Geographic Information Systems (GIS), LIDAR, Unoccupied Aerial Vehicles (UAVs), continuous data-streaming, and other emerging technologies are revolutionizing how information is developed on forests and used for making management decisions. This course will be developed to educate professionals on the latest technology and how to utilize “big data” in forestry planning and operations.

Does this course addition require additional department or institutional facilities, support and/or resources, or library subscriptions and resources?

Yes

Additional Resources:

The Maine Charitable Trust has provided a gift of \$55,500 to help develop three online courses to serve as a core for the GCFR. Courses for a GCFR will be developed for combined synchronous and asynchronous online access. The gift will fund instructor time to develop the course in collaboration with CITL, including travel for on-site recordings, expenses for guest lecturers, and technical help to complete the online format. Funding is also available to help DLL to promote the course.

Academic Units Affected (if any):

none

Course Frequency:

Every spring semester. DLL will provide a salary for the instructor if the course results in an overload, or an adjunct instructor is used.

Can this course be repeated for credit? No

Total number of credits allowed: _____

Total number of completions allowed: _____

Can students enroll multiple times in a term? No

Mode of Instruction: Distance Synchronous Learning

Endorsements

Leader: williaml@maine.edu Approved **Date:** 04/03/23

College CC Chair: susans@maine.edu Approved **Date:** 04/03/23

College Dean: susans@maine.edu Approved **Date:** 04/03/23

Leader: _____ **Date:** _____

College CC Chair: _____ **Date:** _____

College Dean: _____ **Date:** _____

DLL: patricia.libby@maine.edu Approved **Date:** 06/13/23

Graduate School

Date

SFR 514 Enhanced Forest Inventory & Analysis

School of Forest Resources, University of Maine

Course Information

SFR 514 Enhanced Forest Inventory & Analysis. Provides the foundational knowledge and practical skills required to access and apply the key data streams and analysis methods to understand, quantify, and model the range of essential attributes used in enhanced forest inventory systems that inform resource management and planning. Students will work with data covering multiple scales of analysis, including from field plots, inventory plot networks, and airborne and spaceborne imagery and LiDAR. **3-credit online course.** Prerequisites: SFR 400 – Applied Geographic Informational Systems and SFR 406 – Remote Sensing of the Forest Environment, or equivalents, or permission.

Course Delivery Method

Online

Mode of Instruction

Distance Synchronous Learning

Time Options

One meeting online per week, TBD

Digital Services, Hardware, Software

Brightspace, Kaltura videos, and Zoom Video Conferencing, GIS Software, Statistical Programming Tools

Faculty Information

Instructor: Dr. Daniel Hayes

Associate Professor of Geospatial Analysis & Remote Sensing;
Director, Barbara Wheatland Geospatial Analysis Laboratory
daniel.j.hayes@maine.edu

Instructional Materials and Methods

The format for this course is designed to emphasize the practical demonstration of the state-of-the-art tools for forest inventory, remote sensing, and geospatial analysis. Instructional material on each topic is available as pre-recorded video content that students watch and learn from with each week's module. Synchronous on-line meetings will be scheduled each week during which students connect remotely for course updates, group work, and discussion of recent lecture recordings and assignments. Course activities emphasize active learning through hands-on exercises with real-world data sets and applications. Course announcements, content, data sets, assignments, and assessments will be managed through Brightspace, the learning management system used by UMaine. There is no textbook assigned for this course, but an abundance of highly useful on-line resources are available for aiding in understanding concepts and developing the key practical skills. SFR's Wheatland Geospatial Lab (WGL) website (wheatlandlab.org) provides information about our remote sensing and geospatial program, projects, and personnel, and you can check us out on Twitter @WheatlandLab.

Course Goals:

Forests are increasingly valued for the range of services that they provide to society, including timber and non-timber resource supply, environmental provisions, recreation and cultural value, and carbon sequestration as a natural climate solution. Forest management for the sustainable provision of these services requires that scientists, practitioners, and decision-makers have accurate and timely information to understand the condition of the forest resource, what drives its dynamics, and its potential future scenarios. In the era of "big data", there is an unprecedented amount of information currently available to meet this need - along with advanced technologies to acquire and use it in forestry research and real-world applications. **This course will address the emerging and critical need for a current and future workforce that is trained in the use of these data and technologies applied to the study and management of forest resources in a rapidly changing world.**

Instructional Objectives:

In order to bring this new age of information to bear on resource management problems, practitioners and managers need to build a diverse "toolkit" that incorporates big data and emerging technologies into their workflows. This course will:

1. Provide the foundational knowledge and practical skills required to access and apply the key data streams and analysis methods to understand, quantify, and model the range of essential attributes used in enhanced forest inventory systems that inform resource management and planning.

2. Provide students with working knowledge of how to acquire, handle, interpret, and derive measurements and key forest attributes at multiple scales of analysis, including from field plots, inventory plot networks, and airborne and spaceborne imagery and LiDAR.

Student Learning Outcomes

After successful completion of the course, students will be able to:

1. Explain best practices in field data collection, the operation of ground-based plot networks, and the design of national forest inventory and analysis programs.
2. Utilize a large suite of current and emerging remote sensing technologies, and explain the scientific basis for how they work and the cutting-edge tools used to analyze the data sets derived from them.
3. Demonstrate how state-of-the-art in methods for integrating ground-based and remotely-sensed data can enhance forest inventory information.
4. Utilize data in models for upscaling, analysis, and prediction.
5. Synthesize the critical role of enhanced forest inventory and monitoring with key needs in forest resources, such as carbon market programs, state and federal greenhouse gas inventories, and international policy on climate change mitigation.

Grading and Course Expectations

This course will include various opportunities to celebrate your new knowledge of advanced technologies in forest resource analysis as you take part in class activities, including attendance and active participation, study guides, lab reports, and a semester inventory and mapping project.

Item	Qty.	Pts. / Ea.	Tl. Pts.	Pct.
Study Guides	7	25	175	35%
Lab Reports	4	30	120	24%
Term Project Abstract	1	30	30	6%
Term Project Poster	1	175	175	35%
Total			500	100%

Study guides: Students will complete work sheets to demonstrate competency of information covered in recorded lectures. Study guides are due every second week.

Lab Reports: Students will complete assignments that require solving problems and writing reports to demonstrate competencies in utilizing data and developing models. Lab reports are due approximately every 3 weeks.

Term Project: After week 2, students will submit a draft abstract for a semester project based on topics in the recorded lectures and hands-on exercises. After receiving comments on the abstract, the student will complete a semester project based on guidelines given in class. The poster needs to be completed by week 12 so that it can be printed and displayed in weeks 14 and finals week.

Grades: A >92%, A- 90-92.9, B+ 88-89.9, B 83-87.9, B- 80-82.9, C+ 78-79.9, C 73-77.9, C- 70-72.9, D+ 68-69.9, D 63-67.9, D- 60-62.9, F <60.0

Course Schedule:

Part 1. Introduction

Week 1. Assessing and monitoring the state of forests in a changing world

Week 2. Indicators of forest composition, structure, and function at multiple scales

Part 2. Forest Inventories

Week 3. Forest inventory plot network design

Week 4. Forest inventory data analysis

Week 5. Imputation and spatial modeling

Part 3. Remote Sensing

Week 6. 2-D: Forest mapping and monitoring with airborne and spaceborne imagery

Week 7. 3-D: Forest structure measurements with LiDAR

Week 8. Digital Aerial Photogrammetry

Part 4. Enhanced Forest Inventory Methods

Week 9. Tree- and area- based approaches

Week 10. Calibration plot data

Week 11. LiDAR metrics

Week 12. LiDAR models**Part 5. Synthesis****Week 13. Data products and mapping applications****Week 14. Forest carbon monitoring, reporting, and verification systems**

Course Policies

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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 the instructor of the course 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

The University of Maine is committed to making campus a safe place for students. Because of this commitment, if you tell a faculty or staff member who is deemed a "responsible employee" 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, they are 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: 207-581-1406, University of Maine Police: 207-581-4040 or 911.

[Visit the Title IX Student Services website at \[umaine.edu/titleix/\]\(http://umaine.edu/titleix/\) for more information.](http://umaine.edu/titleix/)



5775 Stodder Hall
Orono, Maine 04469-5775
umaine.edu/graduate
graduate@maine.edu
207.581.3291

Graduate Course Modification

Academic Unit: Learning & Teaching

Course Designator & Number: ELL 591 Effective Semester: Summer 2024

Course Title: Multiculturalism and Diversity for English as a Second Language (ESL) Contexts

Course Modification Type: Title Change

Other Modification: _____

Current Catalog Description:

New Course Designator & Number: _____ Credit Hours: _____

New Course Title: Multiculturalism and Multilingual Learners

New Course Prerequisites:

Current course prerequisites: _____

Cross-Listed Course: _____

Course Instructor: Michelle Gumbs Associate Professor, School of Learning and Teaching 2:2 Timothy Reagan Professor, School of Learning and Teaching 2:2

New Catalog Description:

Reason for course modification:
Clearer, updated course title.

Does this course addition require additional department or institutional facilities, support and/or resources, or library subscriptions and resources?

No. The academic unit will not request additional resources for this course

Additional Resources:

Course Frequency:

This course will be offered once a year in the Spring semester. It will be taught by either M. Gumbs or T. Reagan as part of their normal teaching load.

Can this course be repeated for credit? _____

Total number of credits allowed: _____

Total number of completions allowed: _____

Can students enroll multiple times in a term? _____

Mode of Instruction: _____

Endorsements

Leader: shihfen.tu@maine.edu Approved Date: 11/03/22

College CC Chair: tammy.mills@maine.edu Approved Date: 11/04/22

College Dean: arthur.artesani@maine.edu Approved Date: 11/05/22

Leader: _____ Date: _____

College CC Chair: _____ Date: _____

College Dean: _____ Date: _____

DLL: _____ Date: _____

Graduate School

Date

SVT - 512 - Advanced Survey Law

Graduate Course Modification Form - 2023/24 AY

General Catalog Information

Graduate Course Modification Form

****Read before you begin****

FILL IN all fields required marked with an * after importing data.

ATTACH supporting documentation.

LAUNCH proposal by clicking *Validate and Launch* at the top. Once the proposal has been launched, approve the proposal to move the proposal forward in the workflow.

For assistance in completing this form or if you have any questions,
email um.catalog@maine.edu.

*Faculty who are converting a course for online delivery, or making substantive changes to an existing course delivered online, are strongly encouraged to work with the Center for Innovation in Teaching and Learning (CITL) on those modifications: <https://umaine.edu/citl/instructional-design-2/>

REASON FOR COURSE MODIFICATION:* The course will no longer include law and rules of construction regarding boundaries and focus entirely on Surveying Business Operations.

MODIFICATION:* ☐ Designator Change ☐ Credit Change ☐ Cross Listing
☐ Number Change ☒ Title Change ☐ Description Change
☐ Prerequisite Change ☐ Addition of Electronic Learning Component*
☐ Conversion of an existing on-site Course to an online Course*

Department*

School of Engineering Technology

EFFECTIVE SEMESTER:

Semester*

Year*

CATALOG DESCRIPTION:

**Current Course
Designator*** SVT

Current Course #* 512

**Proposed Course
Designator** same

Proposed Course # same

**Current Short
Course Title (The
short course title
will reflect on the
Class Section in
MaineStreet and on
the student's
transcript. Max 30
characters).*** Advanced Survey Law

**Proposed New Short
Course Title (The
short course title
will reflect on the
Class Section in
MaineStreet and on
the student's
transcript. Max 30
characters)** Survey Business Law and Policy

**Current Long Course
Title*** Advanced Survey Law

**Proposed Long
Course Title** Survey Business Law and Policy

**Current Course
Description*** This course will cover applicable law related to surveying from the location of property boundaries to the operation of a surveying business.

**Proposed Course
Description** This course will cover applicable law and policy related to the operation of a surveying business.

**Current
Prerequisite(s)** None

**Proposed
Prerequisite(s)** None

**Current
Prerequisite(s)** None

Corequisite(s)

Proposed Corequisite(s)
None

If the Course will be N/A

cross listed, please identify below what the course listed courses are:

Definition of Credit Hours: Go to <https://umaine.edu/graduate/students/progress/enroll/#define-credit-hour> for the definition of a credit hour at UMaine.

Current Credit 3
Hours:*

Proposed Credit N/A
Change

If the course designer or course N/A

any courses for which this course is a prerequisite:
changed, please list number is being

When will this course typically be offered
☐ Fall ☐ Summer ☒ Spring ☐ Alternating ☐ Variable

Can this course be repeated for credit?
☐ Yes ☒ No

If YES, total number of credits allowed:
If YES, total number of completions allowed:

*Can students enroll multiple times in term?
☐ Yes ☒ No

Instruction Mode: ☒ Distance Synchronous Learning ☐ Hybrid/Blended ☐ Hyflex
Select the mode of instruction for this course. Review the documentation provided by UMS.
☐ In-Person ☐ Online (Asynchronous)

<https://gojira.its.maine.edu/confluence/display/DARTS/Instruction+Modes+Documentation>.

COURSE RESOURCES

Does this course
addition require ☐ Yes
additional ☒ No

department or
institutional
facilities, support
and/or resources, or
library subscriptions
and resources?

If additional
resources are
needed, outline
them below:



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Orono, Maine 04469-5775
umaine.edu/graduate
graduate@maine.edu
207.581.3291

Graduate Course Modification

Academic Unit: Social Work

Course Designator & Number: SWK 580 Effective Semester: Spring 2024

Course Title: Adult and Child Psychopathology

Course Modification Type: Description Change

Other Modification: _____

Current Catalog Description:

SWK 580, Adult and Child Psychopathology

Overview of DSMIV, gender differences in mental illness, current conceptions of serious mental illness, impact of psychiatric labeling and stigma on individuals and families.

Prerequisites & Notes
MSW student or Permission

Credits: 3

New Course Designator & Number: _____ Credit Hours: 3

New Course Title: _____

New Course Prerequisites:

MSW student or permission

Current course prerequisites: _____

Cross-Listed Course: _____

Course Instructor: _____
Dr. Judith Josiah-Martin, Principal Lecturer 3 courses per semester, and Dr. Brent Scobie, Part time instructor, 1 course per semester

New Catalog Description:

This course examines intra-psychic, constitutional, relational, and biomedical strengths, and vulnerabilities as they manifest themselves throughout the lifespan. Students will be introduced to several theoretical perspectives useful for understanding human behavior and psychopathology, and to the impact of oppression, discrimination, and trauma especially as they intersect with differences in race, culture, ethnicity, and sexual orientation. Students will become familiar with the Diagnostic and Statistical Manual of Mental Disorders classification system and its use and misuse of psychiatric labeling system.

Reason for course modification:

The current course description includes an out of date reference to the Diagnostic and Statistical Manual on Mental Disorders (DSMIV). As the DSM is updated regularly we believe the description should not include a volume number.

Does this course addition require additional department or institutional facilities, support and/or resources, or library subscriptions and resources?

No. The academic unit will not request additional resources for this course

Additional Resources:

Course Frequency:

This course is taught in person in the spring by Dr. Josiah-Martin and online in the spring and summer by Dr. Scobie

Can this course be repeated for credit? _____

Total number of credits allowed: _____

Total number of completions allowed: _____

Can students enroll multiple times in a term? _____

Mode of Instruction: _____

Endorsements

Leader: sbutler@maine.edu Approved Date: 03/13/23

College CC Chair: susans@maine.edu Approved Date: 03/13/23

College Dean: nsfadean@maine.edu Approved Date: 03/14/23

Leader: _____ Date: _____

College CC Chair: _____ Date: _____

College Dean: _____ Date: _____

DLL: _____ Date: _____

Graduate School

Date