University of Massachusetts Lowell

Undergraduate Policy Committee
UPC

Dina Bozicas, Tanya Coutu, Leslie Farris, Michael Geiger (Chair), Jennifer Gonzalez-Zugasti, Raj Kumar Gondle, Mary Kate Keyes, Elissa Magnant, Walter Toomey, Wen Zhu

Kevin Petersen, Ryan McPherson*, Julie Nash[1], Mai Nguyen[1], Yolanda Hood[1], Kieran Collins[2], Arjun Sachin Gupte[2]*

*ex-officio, [1] non-voting, [2] student-at-large

Minutes

https://uml.curriculog.com/agenda:215/form

Meeting of Undergraduate Policy Committee (UPC) of Faculty Senate

Monday March 16, 2026 at 3:30-5:00 p.m. in Alumni Hall 102

1. **REMINDER: Committee Member Intentions for 2026-2027** (*Mike Geiger, for Kerry Patenaude*)

    1. Please communicate your intention to keep or release your seat on the Undergraduate Policy Committee for the 2026-2027 academic year by written communication to Kerry Patenaude **before Friday March 20**.

    2. During April nominations for Officers, please also send nominations for Chair by written communication to Kerry Patenaude **before Friday April 17**.

    3. At the May 4 Senate meeting, Senate will elect Officers, Colleges will elect committee members for open seats, and Committees will elect Chairs.

2. **Minutes of UPC Meeting February 9, 2025** (*Mike Geiger*) https://uml.curriculog.com/proposal:3089/form Motion to approve by Elissa Magnant, seconded by Dina Bozicas. Approved: Yes 8, No 0, Abstain 0.

3. Policy Proposals

    1. **UML – Academic Integrity Policy & Practice** *(Julie Nash)* – **Change Policy (University-Level)** https://uml.curriculog.com/proposal:2901/form. This proposal

updates the academic integrity policy to better match current teaching and learning conditions, especially the widespread availability of generative AI tools. The revisions clarify expectations for students and instructors, explicitly address unauthorized AI-assisted work as academic misconduct, and provide concrete examples to reduce ambiguity. The proposal also strengthens consistency and fairness in how cases are documented and handled by standardizing reporting and reinforcing the sanctions and appeal process, including circumstances when violations are discovered after a course ends.

- Faculty Senate – Initial Discussion and vote to initiate the 2-month process was approved on 2/2/26
- Call for Comment #8 – Announced on 2/6/26
- UPC – Will review on 3/16/26 - Motion to approve by Leslie Farris, seconded by Dina Bozicas. Approved: Yes 9, No 0, Abstain 0.
- GPAC – Will review on 3/23/26
- Faculty Senate – Will review & vote on 4/6/26

2. **Requests for a New Prefix** *(Mai Nguyen)* **Discussion.** https://uml.curriculog.com/proposal:3226/form**.** Before creating a new prefix, the implications of sharing credits and/or courses with similar content need to be addressed at the committee level. Requests should include a clear justification and consideration for how the new prefix will impact other degree pathways, particularly because there are implications for course sharing, classroom assignments, and faculty workload. There is currently no official policy; the committee agreed that a request for a new policy would be beneficial.

4. Program Proposals

1. **B.S. Data Science** *(Ming Shao /David Adams /Steve Norton)* **Request for New Prefix**: AIDA. The committee asked if the new prefix would be used to change the Data Science program or for a new program; it will be used to change the existing Data Science program. The committee asked if the prefix DATA will still be used; it did not exist. Motion to approve by Wen Zhu, seconded by Leslie Farris. Approved: Yes 10, No 0, Abstain 0.

2. **B.S. Data Science** *(David Adams)* **Change Name of Plan** https://uml.curriculog.com/proposal:2965/form. Change the name of the plan to "Applied Artificial Intelligence and Data Science". This request is also included in the next proposal; see the motion below.

3. **B.S. Data Science** *(David Adams)* **Change Plan** https://uml.curriculog.com/proposal:2903/form. Change the title of the plan to "Applied Artificial Intelligence and Data Science". Change the required courses: add 12 courses and remove six courses. Change the list of approved electives: add one free elective. Change the CIP Code from 30.7001 to 11.0102. The committee held significant discussions with Ming Shao and Steve Norton. Regarding whether the proposal constituted a program change or a whole new program: clarified that several of the new courses were in the original Data Science proposal and simply carry the newly proposed AIDA prefix (and occasionally different course numbers); courses that are completely new to this curriculum only account for 20 credits. Regarding similarities in course titles of new and existing courses (e.g. "Machine Learning): argument is (1) the courses and their descriptions are actually significantly different, and (2) this already happens with titles like "Thermodynamics"; Registrar reiterated she would like different courses titled differently (e.g. "Machine Learning in Data Science"). Raised issue of how similarly named courses might transfer in; current plan is to take them on a course by course basis, despite desire for transfer students to have clear knowledge of how their credits will transfer in. Regarding lecture/lab courses (e.g. AIDA.1010/1010L) and grading scheme (1010L grade counts for 30% of the 1010 grade): Presenters clarified that both courses will actually carry same grade, using same grading formula –lab grades aren't separate. Committee requested clarifications in syllabi, which have been provided. STEM and SRE attributes needed to be fixed on pathways. Motion to approve by Dina Bozicas, seconded by Jennifer Gonzalez-Zugasti. Approved: Yes 10, No 0, Abstain 0.

4. **B.A. English – Journalism and Professional Writing** *(Katie Shrieves, Natalie Houston)* **Change Lists of Approved Electives** https://uml.curriculog.com/proposal:3015/form. Add one course to the Writing Electives requirement: ENGL.3691 History and Theory of Media. Motion to approve by Elissa Magnant, seconded by Dina Bozicas. Approved: Yes 9, No 0, Abstain 0.

5. **B.A. English – Literature** *(Katie Shrieves, Natalie Houston)* **Change Lists of Approved Electives** https://uml.curriculog.com/proposal:3013/form. Add one course to the ENGL.3/4xxx Post-1900 literature course requirement: ENGL.3375 Psychology and Stories We Tell. Motion to approve by Mary Kate Keyes, seconded by Tanya Coutu. Approved: Yes 9, No 0, Abstain 0.

6. **B.A. English – all subplans: (1) Creative Writing, (2) Journalism and Professional Writing, (3) Literature** *(Katie Shrieves, Natalie Houston)* **Change Lists of Approved Electives** https://uml.curriculog.com/proposal:3014/form. Add one course to the ENGL.3/4xxx Literature Elective requirement, and the ENGL.2/3/4xxx Literature Elective requirement: ENGL.3375 Psychology and Stories We Tell. Motion to approve by Dina Bozicas, seconded by Mary Kate Keyes. Approved: Yes 10, No 0, Abstain 0.

7. **B.A. English – two subplans: (1) Journalism and Professional Writing, (2) Literature** *(Katie Shrieves, Natalie Houston)* **Change Lists of Approved Electives** https://uml.curriculog.com/proposal:3016/form. Add one course to the Theory/Composition/Language/Methods requirement: ENGL.3885 Teaching Literature. The course proposal for ENGL.3885 Teaching Literature has not yet reached UPC. Motion to table by Jennifer Gonzalez-Zugasti, seconded by Leslie Farris. Approved: Yes 10, No 0, Abstain 0.

8. **B.S. Industrial Engineering** *(David Claudio)* **Change Plan** https://uml.curriculog.com/proposal:3064/form. Change required courses: Add MATH.3850 Applied Statistics and IENG.4025 Production and Inventory Management; Remove MATH.3860 Prob and Statistics I and IENG.4050 Production and Inventory Management. Motion to approve by Raj Gondle, seconded by Walter Toomey. Approved: Yes 10, No 0, Abstain 0.

9. **B.S. Nutritional Science – Dietetics Option** *(Mary Kate Keyes)* **Change Plan** https://uml.curriculog.com/proposal:3075/form. Change required courses: Remove MATH.1210 Management Precalculus; Add MATH.1225 Precalculus Mathematics I. MATH.1210 focuses on business applications that the students in this program do not need while MATH.1225 delivers non-field-specific fundamental mathematics education. Motion to approve by Jennifer Gonzalez-Zugasti, seconded by Dina Bozicas. Approved: Yes 10, No 0, Abstain 0.

10. **B.S. Nutritional Science – General Option** *(Mary Kate Keyes)* **Change Plan** https://uml.curriculog.com/proposal:3082/form. Change the title of the subplan to "Precision Nutrition". Change the required course list, list of approved electives, and sequence of courses. Noted that this proposal should add MATH.1225 Precalculus Mathematics I and remove MATH.1210 Management Precalculus, as done in the other Nutritional Science Option changes presented at this meeting. Motion to approve by Walter Toomey, seconded by Mary Kate Keyes. Approved: Yes 10, No 0, Abstain 0.

11. **B.S. Nutritional Science – Nutrition & Wellness Option** *(Mary Kate Keyes)* **Change Plan** https://uml.curriculog.com/proposal:3081/form. Change required courses: Add MATH.1225 Precalculus Mathematics I and EXER.1020 Exercise for Health and Wellness; Remove MATH.1210 Management Precalculus and EXER.2020 Introduction to Exercise Science. Change the sequence of courses. Ryan McPherson noted the degree pathway does not contain an SRE courses; one will be added asap. Motion to approve by Mary Kate Keyes, seconded by Walter Toomey. Approved: Yes 10, No 0, Abstain 0.

12. **B.A. Peace and Conflict Studies** *(Deina Abdelkader, Jason Carter, Ardeth Thawnghmung)* **Pause Admissions** https://uml.curriculog.com/proposal:2945/form. Faculty are considering the best pathway forward for the Peace and Conflict Studies

major after student levels fell to an unsustainable level. Several options are being considered, and this pause will allow further discussions and determinations on the best pathway forward for the program and how a viable enrollment threshold may be achieved. Motion to approve by Walter Toomey, seconded by Dina Bozicas. Approved: Yes 10, No 0, Abstain 0.

13. **B.S. Public Health – Community Health/Health Promotion** *(Karyn Heavner)* **Change Subplan** https://uml.curriculog.com/proposal:3068/form. Change the name of the subplan to "Community Health". Update the required courses and the list of approved electives, change the sequence of courses, the GPA and course grade requirements, and the courses used to fulfill SS and STEM designations. Motion to approve by Mary Kate Keyes, seconded by Leslie Farris Approved: Yes 10, No 0, Abstain 0.

14. **B.S. Public Health – Health Sciences** *(Karyn Heavner)* **Change Subplan** https://uml.curriculog.com/proposal:3050/form. Update the required courses and the list of approved electives, change the sequence of courses, the GPA and course grade requirements, and the courses used to fulfill SS and STEM designations. Motion to approve by Walter Toomey, seconded by Mary Kate Keyes. Approved: Yes 10, No 0, Abstain 0.

15. **B.S. Public Health – Pre-Nursing** *(Karyn Heavner)* **New Subplan** https://uml.curriculog.com/proposal:3085/form. Students in the Pre-Nursing concentration complete coursework that prepares them for entry-level public health positions and meet prerequisites for accelerated nursing, other nursing programs, or graduate studies in Public Health (MPH). The curriculum includes STEM and social science courses which support a strong public health foundation. Graduates are prepared to work in healthcare facilities, community health centers, nonprofit organizations, industry, and state or local health departments. Those who pursue a nursing program following graduation can apply public health principles to improve patient and community health. Noted that program presents an option for students dismissed from Nursing, or those who transfer to UML and would like to pursue Nursing but can't because transferring into Nursing is not an option. Motion to approve by Mary Kate Keyes, seconded by Wen Zhu. Approved: Yes 10, No 0, Abstain 0.

5. Course Proposals

1. **AIDA.1001 AIDA Freshman Seminar** *(David Adams)* **New Course** https://uml.curriculog.com/proposal:2902/form. This seminar introduces first-year students to academic and campus life at the University of Massachusetts Lowell and to the Applied Artificial Intelligence and Data Science (AIDA) major. Students

explore degree requirements, curriculum pathways, and expectations for success in programming, mathematics, and AI coursework. The course highlights research opportunities, internships, ethical responsibilities in AI, and emerging career pathways in artificial intelligence and data science. By the end of the seminar, students will develop an academic plan and a preliminary professional roadmap aligned with their goals.

2. **AIDA.1010 Data Structures in Python I** *(David Adams)* **New Course** https://uml.curriculog.com/proposal:3055/form. This is the first course in the Data Structures in Python sequence for the Applied Data Science & AI program. It introduces Python programming and the fundamental data structures built into Python, with an emphasis on solving data-oriented problems.

3. **AIDA.1010L Data Structures in Python I Lab** *(David Adams)* **New Course** https://uml.curriculog.com/proposal:2985/form. This class must be taken with AIDA.1010 Data Structures in Python I in the same semester. This is the first lab course in the Data Structures in Python sequence for the Applied Data Science & AI program. It introduces Python programming and the fundamental data structures built into Python, with an emphasis on solving data-oriented problems.

4. **AIDA.1020 Data Structures in Python II** *(David Adams)* **New Course** https://uml.curriculog.com/proposal:2931/form. This course continues the Data Structures in Python sequence, focusing on implementing and analyzing classical data structures and algorithms using Python.

5. **AIDA.1020L Data Structures in Python II Lab** *(David Adams)* **New Course** https://uml.curriculog.com/proposal:2986/form. This class must be taken with AIDA.1020 Data Structures in Python II in the same semester. This lab course continues the Data Structures in Python sequence, focusing on implementing and analyzing classical data structures and algorithms using Python.

6. **AIDA.2051 DATA Visualization** *(David Adams)* **New Course** https://uml.curriculog.com/proposal:2935/form. This course introduces principles and practices of data visualization with an emphasis on applications in artificial intelligence and data-driven analysis. Students learn how to design, implement, and evaluate visualizations that support data understanding, model interpretation, and effective communication. Topics include visual encoding, perception, multivariate data, visualization of machine learning results, and ethical considerations. Hands-on assignments use Python-based visualization tools to create clear, accurate, and accessible visualizations.

7. **AIDA.2201 Introduction to Large Language Models** *(David Adams)* **New Course** https://uml.curriculog.com/proposal:2923/form. This course introduces Large

Language Models (LLMs) as programmable tools for building intelligent software systems. Students learn to use LLMs through Python APIs to perform tasks such as text analysis, code generation, document question answering, and task automation. The course emphasizes hands-on experimentation, prompt design, system integration, and responsible use of LLMs, without requiring background in machine learning or natural language processing. Through weekly labs and a final project, students develop practical skills in designing, implementing, and evaluating LLM-powered applications.

8. **AIDA.2201L Introduction to Large Language Models Lab** *(David Adams)* **New Course** https://uml.curriculog.com/proposal:2981/form. The co-requisite lab provides hands-on implementation experience aligned with weekly lecture topics. Through eight structured programming labs, students build LLM-powered applications in Python, including prompt-controlled systems, structured information extraction pipelines, document-based question answering (RAG), tool-calling assistants, and multi-step agent workflows. Labs emphasize experimentation, debugging, robustness testing, and ethical deployment considerations. Students progressively develop practical skills in implementing, testing, and evaluating real-world LLM applications, forming the technical foundation for the course project.

9. **AIDA.2203 Introduction to Machine Learning** *(David Adams)* **New Course** https://uml.curriculog.com/proposal:2924/form. This hands-on studio course introduces machine learning through practical Python-based experimentation. Students learn how to apply existing machine learning tools and libraries to real-world problems without assuming prior ML theory. The focus is on data preparation, model usage, evaluation, and interpretation rather than mathematical derivation. Through weekly labs and a final project, students progressively build practical experience in designing, implementing, and assessing complete machine learning workflows.

10. **AIDA.2203L Introduction to Machine Learning Lab** *(David Adams)* **New Course** https://uml.curriculog.com/proposal:2982/form. This is the lab class for AIDA.2203 Introduction to Machine Learning. The co-requisite lab provides hands-on implementation experience aligned with weekly lecture topics. Through eight structured programming labs, students work with real datasets using Python libraries such as NumPy, pandas, scikit-learn, and high-level neural network APIs. Labs cover supervised learning, classification, validation and model comparison, feature engineering, unsupervised learning, neural networks, and responsible ML evaluation. Students progressively build practical skills in implementing, testing, and documenting reproducible machine learning experiments, forming the technical foundation for the final project. This class must be taken with AIDA.2203 Introduction to Machine Learning in the same semester.

11. **AIDA.2205 Machine Learning** *(David Adams)* **New Course** https://uml.curriculog.com/proposal:2925/form. This course provides a rigorous, theory-focused introduction to machine learning grounded in linear algebra, probability, and statistical inference. Students study core learning techniques, including linear and logistic regression, Bayesian inference, Gaussian models, support vector machines, clustering methods (k-means and Gaussian mixture models), and neural networks, and conclude the course with a team project. Emphasis is placed on mathematical formulation, objective functions, optimization, and generalization behavior. The course complements an applied Machine Learning Studio by focusing on theoretical foundations, analytical reasoning, and model assumptions rather than software implementation.

12. **AIDA.3102 Data Modeling and Causal Inference** *(Jie Wang)* **New Course** https://uml.curriculog.com/proposal:2934/form. This course introduces methodological tools through real-world examples to evaluate whether observed relationships in data reflect genuine relationships in the world and, if so, whether those relationships are causal. Students will learn how to design informative comparisons to answer substantive questions; how to critically assess arguments that rely on quantitative evidence; which statistical measures are most informative or potentially misleading; how quantitative evidence should—and should not—influence decision-making; and how to make better decisions by integrating data analysis with moral and ethical considerations.

13. **AIDA.3201 Large Language Models** *(David Adams)* **New Course** https://uml.curriculog.com/proposal:2926/form. This course provides a machine-learning–centered introduction to the theory and technology behind large language models (LLMs). Building on prior exposure to LLM-based applications, students study sequence modeling, transformer architectures, training objectives, scaling laws, alignment methods, and evaluation challenges, and conclude the course with a team project. The course emphasizes mathematical intuition, algorithmic design, and system-level trade-offs rather than linguistic or symbolic AI concepts. Students develop the ability to analyze, evaluate, and reason about modern foundation models, preparing them for advanced AI coursework, research, and industry roles involving large-scale machine learning systems.

14. **AIDA.3203 Probabilistic and Generative Models** *(David Adams)* **New Course** https://uml.curriculog.com/proposal:2927/form. This course introduces the statistical foundations of generative modeling, focusing on probability theory, latent variable models, and modern generative AI methods. Students study classical statistical models alongside contemporary approaches such as variational autoencoders, diffusion models, and generative transformers, and conclude the course with a team project. Emphasis is placed on likelihood-based learning, variational inference, sampling, and uncertainty modeling. The course bridges statistical theory and

practical generative AI, preparing students to understand, analyze, and build modern generative systems.

15. **AIDA.3221 Deep Learning** *(Hadi Amiri)* **New Course**
https://uml.curriculog.com/proposal:2936/form. This course introduces the foundations of deep learning and its application to real-world and data-intensive problems at scale using existing frameworks such as PyTorch. Students will learn the mathematical and algorithmic foundations of deep learning and gain hands-on experience in building, training, and evaluating deep neural networks. The course guides students on application-level programming, tool-based implementation, and use of deep learning in decision-making, prediction, and representation learning in real-world contexts.

16. **AIDA.4201 Vision Language Models** *(David Adams)* **New Course**
https://uml.curriculog.com/proposal:2928/form. This course studies vision language models (VLM) that jointly reason over visual and textual information. Topics include vision and language representation learning, cross-modal alignment, contrastive objectives, multimodal transformers, large-scale pretraining, and instruction-tuned vision–language systems. Students will analyze and implement modern VLM architectures such as CLIP-style models, multimodal LLMs, and retrieval-augmented VLMs. The course emphasizes theoretical principles, system design tradeoffs, evaluation, and ethical considerations, culminating in a semester-long project.

17. **AIDA.4202 Image Processing** *(David Adams)* **New Course**
https://uml.curriculog.com/proposal:2929/form. This course introduces the fundamental principles and techniques of digital image processing, with connections to modern machine learning and deep learning–based vision systems. Topics include image representation, enhancement, filtering, frequency-domain analysis, segmentation, feature extraction, and color processing. Students learn how classical image processing supports, complements, and improves data-driven models in real-world applications. Emphasis is placed on hands-on implementation using Python and critical evaluation of robustness, bias, and ethical considerations. A semester-long project integrates theory with practical image analysis.

18. **AIDA.4430 Text Retrieval and Analysis** *(Jie Wang)* **New Course**
https://uml.curriculog.com/proposal:2937/form. This course introduces text retrieval and analysis methods, including but not limited to, text data access, retrieval models, search engine and implementation, search engine evaluation, web search, recommended systems, text-data analysis, word association mining, text clustering, text categorization, text summarization, topic analysis, opinion mining and sentiment analysis, and joint analysis of text and structured data. Large Language Models will be used under the instructor's supervision and guidance.

19. **AIDA.4900 Capstone Project I** *(Jie Wang)* **New Course** https://uml.curriculog.com/proposal:2938/form. This course is the first in the Capstone Project Pair and focuses on applied artificial intelligence and data science research and development methodologies, as well as professional research report writing. Students apply standard applied AI and data science procedures to address real-world, data-centric application problems in companies or organizations outside the university, or in interdisciplinary projects within the campus. Under the joint supervision of an external mentor and a departmental faculty advisor, students are required to complete a 20–25-page project progress report. The report must include the following sections: problem formulation, related work, proposed solutions, evaluation, conclusion, code documentation, and bibliography. Students are not required to present their solutions or defend their findings in Capstone Project I.

20. **AIDA.4901 Capstone Project II** *(Jie Wang)* **New Course** https://uml.curriculog.com/proposal:2939/form. This course is the second in the Capstone Project Pair. Building on the work completed in AIDA.4900 Capstone Project I, students apply standard applied artificial intelligence and data science procedures to complete the same project or to initiate a closely related problem. Projects are conducted in collaboration with companies or organizations outside the university, or through interdisciplinary initiatives within the campus. Under the joint supervision of an external mentor and a departmental faculty advisor, students are required to complete a 20–25-page final project report. The report must include the following sections: problem formulation, related work, proposed solutions, evaluation, conclusion, code documentation, and bibliography. Students are required to present their solutions or defend their findings.

21. **ARTS.2050 Design Research & Thinking** *(Melissa Shrenker, Ingrid Hess)* **New Course** https://uml.curriculog.com/proposal:2739/form. This course introduces students to the fundamental principles of design research and critical thinking in the context of UX/UI design. Students will learn methodologies for user-centered research, problem framing, ideation techniques, and strategic design thinking. Through a combination of theoretical frameworks and hands-on projects, students will develop a systematic approach to understanding user needs, analyzing data, and generating design solutions.

22. **ARTS.2200 Website Design I** *(Melissa Shrenker, Ingrid Hess)* **Change Course** https://uml.curriculog.com/proposal:2740/form. Change course title to "Introduction to UX/UI Design", update the catalog description and pre-requisite courses.

23. **ARTS.3200 Website Design II** *(Melissa Shrenker, Ingrid Hess)* **Change Course** https://uml.curriculog.com/proposal:2741/form. Change course title to "Advanced UX/UI Design", update the catalog description and pre-requisite courses.

24. **BIOL.3150 Principles of Ecology** *(Ali Hamilton)* **Change Course** https://uml.curriculog.com/proposal:2904/form. Change catalog number to 4250 to allow cross-listing with a graduate-level section (BIOL.5250). Change catalog description to add specificity on the course content and emphasizing research-based topics. Change pre-requisite and co-requisite courses: Add BIOL.2150 Introduction to Marine Biology to the list of pre-requisite course choices, and add BIOL.4250L Principles of Ecology Lab as a co-requisite.

25. **BIOL.3170L Principles of Ecology Laboratory** *(Ali Hamilton)* **Change Course** https://uml.curriculog.com/proposal:2907/form. Change catalog number to 4250L to allow cross-listing with a graduate-level section (BIOL.5250L). Change catalog description to add specificity on the course content and emphasizing research-based topics. Change pre-requisite and co-requisite courses: Add to the list of pre-requisite course choices BIOL.2400 Evolution, Ecology, and Conservation, BIOL.2150 Introduction to Marine Biology, BIOL.2450 Human Evolutionary Biology, BIOL.2460 Disease Ecology and Evolution, and ENVI.2050 Earth Systems: Biosphere and Global Changes; and add BIOL.4250 Principles of Ecology as a co-requisite.

26. **BIOL.4072 Data Science for Biologists** *(Frederic Chain, Sarah Rozelle)* **Change Course** https://uml.curriculog.com/proposal:2974/form. Add sentence to the catalog description to highlight that expertise in coding/math are not needed, and add "or BIOL.2520 Physiology" to the list of pre-requisite courses.

27. **BIOL.4500 Parasitic Protozoology** *(Frederic Chain, Sarah Rozelle)* **Change Course** https://uml.curriculog.com/proposal:2973/form. Add "or BIOL.2520 Physiology" to the list of pre-requisite courses.

28. **BIOL.4800 Developmental Biology** *(Frederic Chain, Sarah Rozelle)* **Change Course** https://uml.curriculog.com/proposal:2968/form. Add "or BIOL.2520 Physiology" to the list of pre-requisite courses.

29. **BIOL.4820 Cancer Biology** *(Frederic Chain, Sarah Rozelle)* **Change Course** https://uml.curriculog.com/proposal:2969/form. Add "or BIOL.2520 Physiology" to the list of pre-requisite courses.

30. **BIOL.4850 Drawing Conclusions in Biology** *(Frederic Chain)* **New Course** https://uml.curriculog.com/proposal:2911/form. Biologists from all disciplines require analytical skills to evaluate and interpret biological information. Navigating these data to build an accurate understanding of the natural world requires critical thinking and scientific literacy. This course explores and applies principles, concepts, and approaches used to drawing valid conclusions from various types of data and evidence in biology. We use real-world datasets and modern examples from the

literature including research from UMass Lowell faculty and students that illustrate different types of experiments, data, and visualizations that address biological questions. The development of literacy skills will be scaffolded around current topics and interdisciplinary methods to analyze and interpret data in ecology, evolution, and genetics.

31. **BIOL.4860 Experimental Design and Analysis in Life Science** *(Matthew Sasaki, Frederic Chain, Sarah Rozelle)* **New Course** https://uml.curriculog.com/proposal:2967/form. Experiments are one of the main ways in which we expand our understanding of biology. In this hands-on course, students will develop fundamental skills in experimental design, data analysis, and visualization. Students will also learn how to use the coding language R to analyze and visualize data. By the end of the course, students will be able to describe experimental designs and analytic techniques (t-tests, ANOVA, linear regression, mixed effects models, etc.) commonly used in biological research. Students will also be able to evaluate the appropriateness of different experimental designs in biological research, design experiments to answer specific questions, and work through analytic workflows of medium complexity.

32. **BIOL.4945 Host-Pathogen Interactions** *(Frederic Chain, Sarah Rozelle)* **Change Course** https://uml.curriculog.com/proposal:2972/form. Add "or BIOL.2520 Physiology" to the list of pre-requisite courses.

33. **BIOL.4945L Host-Pathogen Interaction Lab** *(Frederic Chain, Sarah Rozelle)* **Change Course** https://uml.curriculog.com/proposal:2971/form. Add "or BIOL.2520 Physiology" to the list of pre-requisite courses.

34. **BMSC.2100 Introduction to Applied Biomedical Sciences** *(Mary Kate Keyes)* **Change Course** https://uml.curriculog.com/proposal:3045/form. Change the course component from "lecture" to "seminar", update the catalog description, and add "Nutritional Science students" to the enrollment requirements.

35. **BMSC.4510 Advanced Pathophysiology** *(Mary Kate Keyes)* **New Course** https://uml.curriculog.com/proposal:3047/form. This course provides an advanced, clinically oriented study of the mechanisms of human disease, with emphasis on the integration of molecular, cellular, histological, and organ-system dysfunction. Students will examine how structural and microscopic tissue changes contribute to disease development, progression, and clinical manifestation across major organ systems. The course incorporates analysis of representative histological features of disease to reinforce structure–function relationships and to support student preparation for advanced laboratory and diagnostic training. Pathophysiologic principles are applied through case-based learning and interpretation of clinical and diagnostic scenarios.

36. **BMSC.4530 Advanced Histology Laboratory** *(Mary Kate Keyes)* **New Course** https://uml.curriculog.com/proposal:3051/form. This advanced laboratory course emphasizes mastery of histological techniques and thematic tissue analysis. Students develop professional competence in fixation, embedding, microtomy, cryosectioning, routine and special staining, and digital microscopy. Following foundational training, students apply these techniques within a structured 12-week block model organized around shared histological architecture and functional similarities. The course integrates technical precision, troubleshooting, comparative tissue analysis, and professional scientific communication.

37. **BMSC.4910 Cell Culture for Biomedical Applications** *(Mary Kate Keyes)* **New Course** https://uml.curriculog.com/proposal:3058/form. This course provides skill-based introduction to mammalian cell culture. Students will master foundational skills including BSL2 safety and aseptic technique; cell thawing, recovery, passaging, and banking; contamination control; viability and dose–response assays; and transient transfection with reporter analysis. Emphasis on GLP/GMP aware documentation, SOPs, and industry and research lab-relevant skills. Designed for senior-level ABS and NS students, this course provides an advanced understanding of mammalian cell culture techniques relevant to biomedical sciences.

38. **CHEM.2050L Principles of Organic Chemistry Laboratory** *(Jessica Garcia)* **Change Course** https://uml.curriculog.com/proposal:2841/form. Change the co-requisite course: Add CHEM.2240 Industrial Organic Chemistry; Remove CHEM.2220 Organic Chemistry IIA.

39. **DGMD.2200 Funny Business: Improv & The Art of Comedy Writing** *(Pavel Romaniko)* **New Course** https://uml.curriculog.com/proposal:2951/form. For students who are serious about "the funny," this class begins with four weeks of full-participation improv games to break the ice, encourage teamwork, stretch the imagination, build confidence, and generate ideas for eventual writing assignments. In the remaining weeks of the class, students will write scenes for film and TV "spec" scripts (with an emphasis on character development) and comedy sketches, some of which they'll shoot as short in-class videos for an end-of-semester online premiere while learning the realities of launching and maintaining careers in the arts.

40. **DGMD.2500 Topics in Digital Media** *(Pavel Romaniko)* **New Course** https://uml.curriculog.com/proposal:2898/form. This course offers a structured platform for exploring thematic and specialized topics within the field of Digital Media. At the 2000 level, students undertake intermediate study intended to reinforce foundational competencies while introducing more advanced concepts, tools, and methodologies appropriate to the subject matter offered in a given term. Specific topics and themes will be announced in advance and may vary by semester, allowing

for a focused investigation of diverse areas within the discipline. The course may be repeated for credit when the topic differs.

41. **DGMD.3900 Storytelling for Sports** *(Pavel Romaniko)* **New Course** https://uml.curriculog.com/proposal:2952/form. This course prepares students to create and distribute creative sports-related media content through contemporary production and publishing practices. In collaboration with the University's Athletics Department, students examine how accessible media technologies support the efficient production and circulation of diverse content across multiple platforms. Discussed potential overlap between this course and ENGL.3685: Sports Writing. Pavel Romaniko noted that English department chair Jonathan Silverman is aware of this course proposal and sent notes on how to differentiate it from the English course. Focus of this course is more on sports media. Hope is for this course to be part of an eventual concentration related to sports; course is also potential CCE.

42. **EECE.2160 ECE Application Programming** *(Mike Geiger)* **Change Course** https://uml.curriculog.com/proposal:2948/form. Change the catalog number to 1160 because the course does not require any prerequisites and can be taken by any first-year student.

43. **EECE.3220 Data Structures** *(Mike Geiger)* **Change Course** https://uml.curriculog.com/proposal:2708/form. Change the catalog number to 2220 to fit the new curriculum and put it at the same level of its equivalent COMP.2010 Computing III.

44. **EECE.3630 Introduction to Probability and Random Processes** *(Mike Geiger)* **Change Course** https://uml.curriculog.com/proposal:2950/form. Change the pre-requisite courses: Add MATH.2340 Differential Equations and MATH.2310 Calculus III; Remove EECE.2020 Circuit Theory II.

45. **EECE.4862 Embedded Artificial Intelligence** *(Mike Geiger)* **New Course** https://uml.curriculog.com/proposal:2892/form. This course explores the integration of artificial intelligence (AI) and machine learning (ML) algorithms into embedded systems. Students will learn both the theoretical foundations of AI models and the practical challenges of deploying them on resource-constrained hardware platforms. Topics include ML and deep learning fundamentals, embedded hardware and software architectures, optimization techniques for computation, memory and energy efficiency, and real-world embedded AI application examples in computer vision, robotics, and IoT. Through homework, hands-on labs and a project, students will design, implement, and evaluate embedded AI systems using state-of-the-art development platforms.

46. **EECE.4864 Applied AI for Engineering Research** *(Mike Geiger)* **New Course** https://uml.curriculog.com/proposal:2977/form. This combined undergraduate and graduate course explores how artificial intelligence can enhance research, data analysis, and creative innovation. Students will learn to apply AI tools for literature review, data analysis, and communication of results. The course concludes with a discussion of how AI transforms scientific thinking and creativity.

47. **ENVE.4610 Chemical Fate and Transport in the Environment** *(Weile Yan, Raj Gondle)* **Change Course** https://uml.curriculog.com/proposal:2651/form. Change pre-requisite courses: Remove ENVE.3650 Groundwater Hydrogeology and Remediation, and add CIVE.3010 Fluid Mechanics, or equivalent.

48. **EXER.1020 Exercise for Health and Wellness** *(Kyle Coffey)* **New Course** https://uml.curriculog.com/proposal:3078/form. This course introduces exercise science and the role of physical activity in health and wellness for students from all academic backgrounds. Students will explore how the human body responds and adapts to exercise, examine the components of physical fitness, and learn how physical activity and exercise contribute to physical and mental health across the lifespan. Emphasis is placed on understanding and applying evidence-based physical activity guidelines, evaluating exercise and health information encountered in everyday life, and developing safe, inclusive approaches to physical activity. No prior science or fitness background is required.

49. **EXER.2000 Introduction to Strength Training** *(Kyle Coffey)* **New Course** https://uml.curriculog.com/proposal:3083/form. This course introduces students to safe exercise execution for major muscles and groups and fundamental movement patterns. Students will learn the basics of foundational resistance exercises, as well as variations using free weights, machines, and other training implements. Emphasis is placed on proper terminology, correct lifting mechanics, spotting procedures, basic client communication, and technique development necessary for effective resistance training for health and performance.

50. **EXER.2020 Introduction to Exercise Science** *(Kyle Coffey)* **Change Course** https://uml.curriculog.com/proposal:3077/form. Change the catalog number to 1000, update the catalog description, enrollment requirements, and the learning outcomes.

51. **FAHS.4700 Career Portfolio Preparation Seminar** *(Diana Archibald)* **New Course** https://uml.curriculog.com/proposal:3043/form. In this one-credit active-learning seminar, FAHSS students who are currently engaged in or have recently completed non-credit-bearing career-connected experiences will reflect on their learning and demonstrate their career readiness to a target audience. Experiences included in the portfolio might be internships; high-commitment extracurricular activities, volunteering, or research projects; or other activities related to a student's

professional goals. Students will create career-focused e-portfolios with a customized résumé, key artifacts, reflection, and more. Feedback from alumni mentors on final portfolios is available. Participating in this CCE course will bolster students' ability to advocate for themselves and articulate their value during the job search process. The resulting portfolio that students develop will set them apart from other candidates. This 50-minute, S/U seminar meets once a week.

52. **GNDR.3500 Gender and Media in Latin America** *(Emma Peterson)* **New Course** https://uml.curriculog.com/proposal:3001/form. How does media shape the politics of gender in Latin America? Who gets represented and who is left out? In this course, we will explore how gender is constructed in the Latin American world through movies, TV, news, advertising, and social media. We will analyze media from multiple perspectives and cultures to explore questions of representation and identity. We will learn how to apply intersectionality to understand how gender interacts with race, class, sexuality, nationality, indigeneity, and religion within latine contexts. Through close textual analyses, cultural case studies, and critical media analyses, we will explore how media in Latin America shapes our understanding of gender, power, and representation. Course needs a pre-requisite; Emma Peterson requested SOCI 1010 Intro to Sociology; OR GNDR 2400 Intro to Gender Studies; OR WLSP 1010 Spanish 1 and Culture as pre-reqs via e-mail.

53. **GRFX.3150 Design for Advertising** *(Pavel Romaniko)* **Change Course** https://uml.curriculog.com/proposal:2775/form. Change the pre-requisite courses from "GRFX.2000 Introduction to Graphic Design (formerly 70.291 or ARTS.2100), and GRFX.2020 Fundamentals of Typography (formerly ARTS.2400 or ARTS.2300" to "GRFX.2000 Introduction to Graphic Design and GRFX.2020 Fundamentals of Typography or DGMD.1000 Intro to Digital Media".

54. **GRFX.4000 Portfolio Production Seminar** *(Pavel Romaniko)* **Change Course** https://uml.curriculog.com/proposal:2776/form. Change the pre-requisite courses: Remove GRFX.2020 Fundamentals of Typography.

55. **HIST.3845 Malcolm X** *(Christoph Strobel)* **Change Course** https://uml.curriculog.com/proposal:2955/form. Change the catalog number to 2845 based on changes made to the required reading and expectations for course assignments.

56. **HSCI.3190 Pathophysiology** *(Mary Kate Keyes)* **Change Course** https://uml.curriculog.com/proposal:3046/form. Change the course catalog number to "2010", change the course component from "recitation" to "lecture", and updated the course catalog description.

57. **IENG.3030 Manufacturing Process** *(Christopher Hansen, Carter Keough, David Claudio)* **Change Course** https://uml.curriculog.com/proposal:3062/form. Change

pre-requisite courses: Add IENG.2100 Engineering Design & Manufacturing; Remove MECH.2020 Manufacturing Laboratory.

58. **MATH.1205 Applied Precalculus** *(Jennifer Gonzalez-Zugasti)* **Change Course** https://uml.curriculog.com/proposal:2979/form. Change the catalog description and pre-requisite courses.

59. **MATH.1210 Management Precalculus** *(Jennifer Gonzalez-Zugasti)* **Change Course** https://uml.curriculog.com/proposal:2941/form. Add pre-requisite "Current ALEKS Math Placement 26 or higher, or a B- or higher in MATH.1115 Fundamentals of Algebra" and "Anti-requisites: MATH.1205 Applied Precalculus, MATH.1225 Precalculus Mathematics I. Discussed impact that pre-req change will have on incoming class--Jennifer Gonzalez-Zugasti said the Math department had discussed this change with the School of Business. Also discussed questions of why passing grade in algebra isn't sufficient (students who barely pass algebra tend to really struggle in pre-calc), potential transfer issues with pre-req (algebra can't transfer, so no issue), and retaking ALEKS to work around needing higher algebra grade (limitations on ALEKS make this infeasible).

60. **MATH.2210 Introduction to Linear Algebra** *(Bobbie Wu)* **Change Course** https://uml.curriculog.com/proposal:2779/form. Change the catalog description: The current course description is outdated and does not fully reflect the scope of the subject. We would like to update the list of topics covered by the course, and to add a general description of the subject that will provide more helpful information to the students.

61. **MATH.3230 Introduction to Proofs** *(Jennifer Gonzalez-Zugasti)* **Change Course** https://uml.curriculog.com/proposal:2705/form. Change pre-requisite courses: Keep: MATH.2190 Discrete Structures I. Add: MATH.1320 Calculus II with a grade of B- or better.

62. **MECH.4220 Integrated Engineering Design** *(Christopher Hansen, Kari White, Jesus Reyes-Blanco)* **New Course** https://uml.curriculog.com/proposal:3054/form. This course prepares students for an integrated capstone design experience. Students apply advanced engineering design methods, quality engineering principles, and project management tools to develop a complete and well-justified capstone project proposal for implementation in MECH.4230. Topics include design methodology, design for quality and manufacturability, statistical design and analysis, tolerance analysis, project planning, risk management, and professional documentation. Students perform structured ideation, feasibility analysis, and initial design development leading to a formal capstone proposal.

63. **MLSC.3200 Clinical Hematology Practicum** *(Laura Rouhana)* **Change Course** https://uml.curriculog.com/proposal:2995/form. Change the number of contact hours from 8 to 2.

64. **MLSC.4300 Clinical Immunohematology Practicum** *(Laura Rouhana)* **Change Course** https://uml.curriculog.com/proposal:3004/form. Change the number of contact hours from 8 to 2.

65. **MLSC.4500 Clinical Chemistry Practicum** *(Laura Rouhana)* **Change Course** https://uml.curriculog.com/proposal:3005/form. Change the number of contact hours from 8 to 2.

66. **MLSC.4510 Urinalysis Practicum** *(Laura Rouhana)* **Change Course** https://uml.curriculog.com/proposal:3006/form. Change the number of contact hours from 8 to 2.

67. **MTEC.4140 Engineering Economics** *(Bradley Mingels)* **Change Course** https://uml.curriculog.com/proposal:2851/form. *(Unresolved issue re: prefix & course number)* Change the catalog number: MTEC.4140 is currently offered only on-line; it is the exact same content for IENG.4140 which is only offered live. I am requesting a course number change for the MTEC course to the IENG prefix. Course number consolidation to IENG.4140. Live vs. on-line offering designation will be made by section number rather than course number. Course change cannot be completed and should be replaced by (1) MTEC curriculum change that replaces MTEC.4140 with IENG.4140, (2) course inactivation request for MTEC.4140 if that course will no longer be offered.

68. **NUTR.4840 Current Topics in Nutrition** *(Mary Kate Keyes)* **New Course** https://uml.curriculog.com/proposal:3080/form. This course provides an advanced examination of emerging and contemporary issues in nutrition science through in-depth analysis of current research, policy, and practice. Students critically evaluate primary scientific literature addressing rapidly evolving topics such as precision and personalized nutrition, nutrigenetics, the gut microbiome, dietary supplements, nutrition misinformation, health equity, and the translation of nutrition science into clinical and public health applications. Emphasis is placed on synthesis of biochemical, molecular, clinical, and population-level evidence, interpretation of complex data, and evidence-based reasoning. The course prepares students to engage with cutting-edge nutrition science and to apply critical thinking skills essential for graduate study, research, and professional careers in nutrition and health sciences.

69. **UMLO.4800 Internship Experience** *(Greg Denon, Rae Perry)* **New Course** https://uml.curriculog.com/proposal:2993/form. This internship course uses work experience to help students apply knowledge and skills gained through their

education in workplace settings, develop career-readiness competencies, understand professional work environments, and explore career paths. As part of the internship, students either actively participate in the daily operations of the workplace or design, deliver, manage, or evaluate a defined project related to their role. A qualifying work experience is a required prerequisite for enrollment and must receive prior approval from the course instructor. The internship must be directly related to the student's major field of study or stated career goals. Students are required to complete a minimum of 100 internship hours during the course. This course is open to students who are not eligible for internship courses within their academic department or an internship course is unavailable.

70. **WLAN.2005 Popular Culture in East Asia** *(Maria Matz)* **New Course** https://uml.curriculog.com/proposal:2724/form. This course examines East Asian popular culture - literature, film, anime, manga, music, visual art - from the 1950s to the present, exploring how cultural production shapes national identity and influences cross-cultural attitudes across the region and beyond to North America. Using media and globalization theories, we will analyze production, consumption, and transnational circulation of popular culture. Primary focus: cultural construction of technology and futurism through science fiction. Topics include national identity, race and gender, postcolonial memory, globalization, and representations of robotics/AI.

FAHSS Requests for the Attribute: Career-Connected Experience (CCE)

71. **ARTS.2210 Practicum/Internship** *(Stephen Mishol)* **Attribute CCE** https://uml.curriculog.com/proposal:3042/form.

72. **DGMD.3510 Video Production for Clients** *(Pavel Romaniko)* **Attribute CCE** https://uml.curriculog.com/proposal:3035/form

73. **HIST.2980 Introduction to Historical Methods** *(Christoph Strobel)* **Attribute CCE** https://uml.curriculog.com/proposal:3032/form Discussed whether low-level course was appropriate for CCE attribute; Diana Archibald noted that TIE Hub felt course was good example of preparatory course.

74. **WLAN.4000 Senior Capstone in World Languages** *(Maria Matz)* **Attribute CCE** https://uml.curriculog.com/proposal:3033/form

Motion to approve all courses, with the exception of #67, by Mary Kate Keyes, seconded by Walter Toomey. Approved: Yes 10, No 0, Abstain 0.

Agenda review complete at 5pm.

Additional item:

6. **Discussion if time allows** *(Amit Deokar)* **Request for New Prefix**: REAL https://uml.curriculog.com/proposal:3096/form Amit Deokar noted that Finance wants the new prefix as they don't want Finance students to use Real Estate (REAL) courses as their electives, and vice versa. At least three REAL courses will be proposed, starting with special topics. The idea is to grow it into a full concentration. Motion to approve by Elissa Magnant, seconded by Wen Zhu. Approved: Yes 10, No 0, Abstain 0.

The meeting adjourned at 5:10pm.

Next UPC Meeting: Monday April 13, 2026 at 3:30-5:00pm in Alumni Hall 102.