University of Massachusetts **UMASS**.Lowell

Graduate Policy & Affairs Committee (GPAC)

Michael Ciuchta (Sub present: Mark Yim), Ramanpreet Kaur, Saira Latif, Christine Leider (absent), Lisa Marchand, Jeff Moore, Suzanne Moore, Nese Orbey, Neil Shortland, Noah Van Dam*

Kevin Petersen**, Mai Nguyen[1], Nancy Ludwig[1], Deborah White[1]

**Ex-officio, [1]non-voting

Minutes

https://uml.curriculog.com/agenda:199/form
Monday November 17, 2025 at 3:30-5:00 PM in Alumni Hall 102

1. **Executive Session** *(Noah Van Dam)* Graduate Student Petitions in Alumni Hall 101
   There were no graduate student petitions to consider. Executive session was not called.

2. **Minutes from the October 20, 2025 Meeting** *(Noah Van Dam)*
   https://uml.curriculog.com/proposal:2811/form Motion to approve by Mark Yim, seconded by Jeff Moore. Approved: Yes 5, No 0, Abstain 1

3. **Program Proposals** *(Noah Van Dam)*

   1. **Ph.D. Applied Biology – all 4 subplans** *(Jennifer Fish)* – **Change Plan**
      https://uml.curriculog.com/proposal:2757/form Change required courses in the plan; Remove: BIOL.6040 Professional Communications; Add: "Each PhD student will work with their dissertation supervisor and committee to select two core competency courses". Add all Biology graduate-level courses to the approved list of core competency courses. The four subplans are: (1) Biomedical Science (BMS), (2) Cellular & Molecular Biology (CMB), (3) Developmental & Evolutionary Biology (DEB), and (4) Quantitative Biology & Biophysics (QBB). The communications course was a core of all graduate programs. The content had started to be incorporated into other courses (applied bio 1 and 2) leading to lots of overlap. Communications was targeted to MS students, so removing for Ph.D. students. Motion to approve by Saira Latif, seconded by Suzanne Moore. Approved: Yes 8, No 0, Abstain 0.

2. **DNP Nursing – all 3 subplans** *(Lisa Marchand)* – **Change Plan** https://uml.curriculog.com/proposal:2794/form Update required courses: Add PUBH.5060 Quantitative Methods in Health Management; Remove PUBH.5770 Biostatistics for Health Data. The three DNP subplans are: (1) Advanced Practice Registered Nurse (APRN), (2) Family Health or Adult Gerontology Primary Care Nurse Practitioner (FH-AGPC), and (3) Non-Advanced Practice Registered Nurse (Non-APRN). The committee discussed that the rationale provided was too brief to fully understand and did not clearly explain the reasoning behind the proposal. It was also noted that the proposed effective term was Spring 2026, but such changes are usually implemented in the Fall for clarity and consistency. As there was no representative present to provide additional information, the committee agreed to table the item. Motion to table by Neil Shortland, seconded by Noah Van Dam. Approved: Yes 8, No 0, Abstain 0.

The committee returned to this item after Lisa Marchand arrived. The course had previously been listed as 5060 but was swapped to a different course that has proven less suitable for DNP students, who have since struggled with the content. The proposal seeks to revert to the prior course, which is considered a better fit. The earlier change had been made partly to strengthen the program's presentation, but reverting now aligns better with student needs. As there is no spring cohort, so the change could take effect in Fall 2026. Motion to approve, conditional on Lisa Marchand uploading the missing curriculum outline form, by Lisa Marchand, seconded by Jeff Moore. Approved: Yes 9, No 0, Abstain 0.

3. **DNP Nursing** *(Lisa Marchand)* – **Change Graduate Admission Requirements** https://uml.curriculog.com/proposal:2793/form   Change the prerequisite courses and direct patient care hours earned with MS degree. This requirement had previously existed under CCNE policy but was not adopted or enforced at UML. The change applies only to students who are not nurse practitioner (NP) prepared. It was also noted that students may take the courses as non-degree students, and if they perform well, they may later gain admission to the program. Motion to approve by Saira Latif, seconded by Ramanpreet Kaur. Approved: Yes 9, No 0, Abstain 0.

4. **Ph.D. Computer Science** *(Benyuan Liu)* – **Change Graduate Admission Requirements** https://uml.curriculog.com/proposal:2772/form Remove the GRE requirement. Advisors are required for all doctoral student admissions and can effectively evaluate applicants through a more holistic approach. The GRE was seen as creating an unnecessary barrier to admission without adding sufficient value to the evaluation process. Requested effective date of Spring 2026, but ok if effective Fall 2026. Motion to approve by Noah Van Dam, seconded by Neil Shortland. Approved:

5. **M.S. Computer Science** *(Tingjian Ge or Benyuan Liu)* – **Change Graduate Admission Requirements** https://uml.curriculog.com/proposal:2771/form Remove the GRE requirement. GRE requirements have been phased out at many institutions and graduate student recruitment has become increasingly difficult. The proposer said that evaluation will now rely more heavily on letters of recommendation, GPA, and a more detailed evaluation of applicants' universities, which can be reviewed online. The program recruits from consistent universities, so can use that experience as well. Motion to approve by Noah Van Dam, seconded by Suzanne Moore. Approved: Yes 9, No 0, Abstain 0.

4. **Course Proposals** *(Noah Van Dam)*

   Requests for New Courses

   1. **CHEM.5780 Quantum Materials** *(Hugo Ribeiro)* – **New Course** https://uml.curriculog.com/proposal:2745/form In recent years, quantum computing has made significant progress, potentially accelerating the discovery process in science and engineering, including materials and life sciences. This course focuses on how quantum computing techniques can be used to gain a better understanding of these domains, particularly how they can assist in the development and enhancement of knowledge in materials chemistry. The course is designed to provide a practical introduction to Qiskit® and IBM quantum experience for STEM students. It includes widely used quantum algorithms for materials in chemistry, with practical examples of setting up tools and models using Python notebooks. Students will work on a project spanning a semester, providing them with hands-on experience in building a model addressing a particular chemistry challenge. This course meets the Core Curriculum Applied and Integrative Learning Essential Learning Outcome, helping students synthesize their learning experiences, providing them with skills and the disposition to build learning across the curriculum and co-curriculum and to realize the benefits of experiential learning opportunities in or beyond the classroom. The course explores quantum chemical concepts and the postulates of quantum mechanics in a modern fashion, with the intent to see how chemistry and computing intertwine. Along the way, students will learn about quantum information theory and computation. The course builds a framework of computational tools that leads students through traditional computational methods and straight to the forefront of exciting opportunities. These opportunities will rely on achieving next-generation accuracy by going beyond the standard approximations, such as beyond Born-Oppenheimer calculations. The committee raised questions about differentiation

2. **EECE.5420 Advanced Printed Circuit Board Design** *(Tingshu Hu or Mike Geiger)* – **New Course** https://uml.curriculog.com/proposal:2710/form The Advanced PCB Design Course is a rigorous, application-focused program designed to elevate your knowledge of printed circuit board (PCB) technology and equip you with the advanced skills essential for success in today's fast-paced electronics industry. This course builds on foundational design concepts and transitions into the deeper engineering, manufacturing, and system-level considerations that define modern electronic product development. Whether you're designing high-speed circuits, flexible electronics, or multi-board systems, this course delivers the technical depth and hands-on experience necessary to bring complex designs to life. The committee observed that the submitted syllabus lacked a schedule and was unusually brief. There was also no statement addressing course overlap. Motion to table by Noah Van Dam, seconded by Suzanne Moore. Approved: Yes 9, No 0, Abstain 0.

3. **EECE.5870 Next-Generation Communication Networks** *(Tingshu Hu or Mike Geiger)* – **New Course** https://uml.curriculog.com/proposal:2733/form   Analysis and modeling of centralized and distributed computer networks. Access (5G/6G and passive optical network) and core network architecture are introduced. Principles of network design and analysis and design of optical network paradigms and architectures are studied. Introduction to optical components, wavelength division multiplexing, elastic optical networks (EONs), multi-band EONs (MB-EONs), space-division multiplexing (SDM), the evolution of optical networks, design, and analysis of wavelength-routed networks, optical packet-/burst-switched networks and resource allocation in EONs, MB-EONS and SDM are addressed. Principles of network design, linear programming, protocol and algorithm design, discrete event simulation techniques, and queueing theory are also studied. We will also study cyber-physical systems, grid and cloud networks, flexible communication paradigms (such as anycasting, multicasting, and manycasting), co-scheduling, and green networking. Finally, the application of artificial intelligence in network design will be presented. The committee noted that the course should follow the grading policy for graduate-level courses and that no overlap statement was provided. Motion to table by Noah Van Dam, seconded by Neil Shortland. Approved: Yes 9, No 0, Abstain 0.

4. **ENGY.5300 Principles of Nuclear Science and Engineering** *(Eric Maase)* – **New Course** https://uml.curriculog.com/proposal:2721/form This is the introductory course in Nuclear Engineering for students that enter the graduate program in Nuclear Engineering from non-nuclear undergraduate programs. Met agenda deadline for October but due to a system glitch was not added to the agenda. GPAC voted via email between 10/28/25-11/03/25. Approved: Yes 7, No 0, Abstain 3.

5. **ENVI.5120 Soil Science** *(Joy Winbourne)* – **New Course** https://uml.curriculog.com/proposal:2664/form This class provides a fundamental understanding of the formation, structure, and functioning of soils. Topics include soil formation and history, soil chemistry and physics, soil endangerment and protection, and distribution and characteristics of soils across the world. This class provides a fundamental understanding of the formation, structure, and functioning of soils. Topics include soil formation and history, soil chemistry and physics, soil endangerment and protection, and distribution and characteristics of soils across the world. The catalog description was copied twice into the form but can be fixed as an administrative fix. The pre-language around "equivalent courses" is ok with the Registrar. Motion to approve by Jeff Moore, seconded by Ramanpreet Kaur. Approved: Yes 8, No 0, Abstain 1.

6. **ENVI.5120L Soil Science Lab** *(Joy Winbourne)* – **New Course** https://uml.curriculog.com/proposal:2665/form This lab is designed to complement the lecture material from ENVI.5120 - Soil Science. The lab includes field and laboratory measurements of soil structure and soil physical and chemical characteristics. As the outermost layer of the Earth's crust, soil is at the interface between earth, air, water, and life. Soils provide important ecosystem services and are critical for the sustenance of humanity. Motion to approve by Ramanpreet Kaur, seconded by Mark Yim. Approved: Yes 9, No 0, Abstain 0.

7. **ENVI.5150 Biogeochemistry** *(Joy Winbourne)* – **New Course** https://uml.curriculog.com/proposal:2666/form This class will explore origins, transport, and transformations of elements in the global environment. We will us quantitative approaches to understand physical, chemical, and biological controls on elemental cycles. Many of these elements cycle between the geosphere, atmosphere, hydrosphere, and biosphere, and quantifying exchanges and fluxes between compartments is a critical component of understanding their distribution. We will also emphasize microbial processes that are critical in shaping biogeochemical cycles. Met agenda deadline for October but due to a system glitch was not added to the agenda. GPAC voted via email between 10/28/25-11/03/25. Approved: Yes 6, No 0, Abstain 4.

8. **BIOL.5000 Professional Experience** *(Jennifer Fish)* – **Change Course** https://uml.curriculog.com/proposal:2688/form Change the course number from 5000 to 6000 to restrict enrollment to graduate students only. The committee discussed whether this was needed, as undergraduates already need permission numbers to enroll in 5000-level courses, but official policy is undergraduates cannot take a 6000 level course, even though current practice hasn't enforced the 5000/6000-level distinction, so this would help the coordinator point to a policy when rejecting undergraduate student requests to enroll. Motion to approved by Jeff Moore, seconded by Saira Latif. Approved: Yes 9, No 0, Abstain 0.

9. **EDUC.7012 Data Analysis** *(Hsien-Yuan Hsu)* – **Change Course** https://uml.curriculog.com/proposal:2698/form Change the course title to "Quantitative Data Analysis". Motion to approve by Neil Shortland, seconded by Ramanpreet Kaur. Approved: Yes 9, No 0, Abstain 0.

10. **EDUC.7101 Qualitative Research: Advanced Topics in Analysis** *(Hilary Lustick)* – **Change Course** https://uml.curriculog.com/proposal:2697/form Change the course title to "Qualitative Coding and Analysis". Motion to approve by Suzanne Moore, seconded by Neil Shortland. Approved: Yes 9, No 0, Abstain 0.

11. **MATH.5350 History of Mathematics** *(Hung Phan)* – **Change Course** https://uml.curriculog.com/proposal:2702/form Change catalog description, pre-requisite courses, and other enrollment requirements. Add: Pre-requisite - Only for M.S. Math - Teachers Option. The committee confirmed that SiS can restrict enrollment to specific Options without issue. Motion to approve by Saira Latif, seconded by Jeff Moore. Approved: Yes 9, No 0, Abstain 0.

5. **Discussion**

1. **Graduate Student Transfer Credit Policy** *(Noah Van Dam)* – Continue the discussion that began on October 20, 2025; whether to move forward with a simple clarification with respect to Acceptance of Master's Degree Toward Doctoral Requirements or to do a deeper revision to either/both policies? The committee discussed whether the proposed change was necessary but since it involves modifying catalog wording faculty approval is required. Members provided feedback on the revised language and the appropriate placement of the note on the catalog page. Motion to support initiating the university policy change process using

the updated language and location by Suzanne Moore, seconded by Jeff Moore. Approved: Yes 7, No 0, Abstain 0.

2. **Graduate Student Petitions** *(Noah Van Dam)* – https://uml.curriculog.com/proposal:2700/form What information should be included in a standardized template? No discussion

3. Item from the floor: Feedback Requested: Proposed Policy on Transfer Credits for Graduate Certificates. Suzanne Moore has a policy proposal related to the current transfer policy for graduate certificates. She would like committee feedback on her proposal to potentially send to the full senate as a university policy change proposal. Suzanne will send the draft over email and create a Documents for GPAC proposal to hold the proposal documents as well.

Motion to adjourn Lisa Marchand, Seconded by Suzanne Moore. Approved: Yes 6, No 0, Abstain 0. Adjourned 5:11 PM

Next GPAC Meeting: Monday December 15, 2025 at 3:30-5:00pm in Alumni Hall 102.