

Graduate Council Meeting No. 559 January 16, 2024 via Zoom | Minutes

Council Members Present: Alessandra Adami, Araceli Bonifant, Susan DeSanto-Madeya,Emilijia Djurdjevic, Marta Gomez-Chiarri, Asta Habtemichael, Karen Morse, Hans Saint-Eloi Cadely, Helani Singhapura, Angela Slitt, Karolina Wojcik, Ping Xu

Council Members Absent: Ali Akanda, Emmett Goods, David Rowley, Yang Shen, Minsuk Shim,

Graduate School Present: Brenton, DeBoef, Eric Beretta, Jessica Coyle, Corinne Kulesh, Cara Mitnick, Colleen Mouw

I. Call to order - 2:04 pm

★ The meeting was called to order at 2:04 pm by Chair Slitt.

II. Approval of Minutes - Meeting No. 558, November 27, 2023

- \star Motion to approve the minutes for meeting no. 557
 - Approved

III. Announcements

- A. Graduate Faculty Summit (DeBoef)
 - Dean DeBoef announced that the Annual Graduate Faculty Summit will take place on Wednesday, February 14th from 1:00-3:00 p.m. Faculty are encouraged to register and attend The topics will include Graduate School and Graduate Council updates. Dean DeBoef surveyed the council on topics to include at the summit.
- B. One-time Summer Stipend Support (Mouw)
 - Associate Dean Mouw announced that the Graduate School launched a graduate student hardship fund to assist students. Additional funding information can be found on <u>this web</u> <u>page</u>. The Graduate School is running a one-time only summer stipend support competition for graduate students who need summer financial support. The funds will pay students to work on their research associated with their URI degree program. Students must be enrolled full-time in Spring 2024 in a URI Ph.D. or thesis master program and have at least one semester remaining in their program during the 2024-2025 academic year. An application will be available on February 14th.
- C. Professional Development (*Mitnick*)
 - Director Mitnick reminded the council to encourage their students to apply for the 3 Minute Thesis competition, the deadline is January 30th. President Parlange will be a judge in the final round. Upcoming February Professional Development workshops were displayed, including "You Belong Here: Overcoming Imposter Syndrome," CV/Resume Seminar, and Equity Pedagogies Workshop.
- D. Graduate Program Learning and Success Report Update (Kulesh)
 - 1. Director Kulesh stated that the new reporting model aligns with a different reporting style for NICHE, aligns with the strategic plan regarding enrollment and DEI efforts, and includes areas for aspirations, continuous improvements, and areas of understanding of how the Graduate School can better support programs, program directors, and student

learning. Director Kulesh will collaborate with Institutional Research to provide the data to programs. There will be three cohorts that will be assigned to one of the three reporting years. This year's cohort includes College of Engineering, College of Health Sciences, College of Pharmacy, and Graduate School of Oceanography.

E. Recent appointments to the Graduate Faculty (Mouw)

Kate Webster, Lecturer/ Teaching Professor, CHS	Katherine Ackerman, Outside Scholar, CHS
Nada Hashmi, Outside Scholar, COB	Pamela H Loring, Outside Scholar, CELS
Kenna Rubin, Tenure-track, GSO	Diana J Hamilton, Outside Scholar, CELS
Eugene Chabot, Outside Scholar, COE	Amanda K. Jones, Outside Scholar, CELS
Vanessa G. Perry, Outside Scholar, COB	Erin Davis, Lecturer/ Teaching Professor, CELS
Cynthia Smith, Outside Scholar, CHS	Howard Lasker, Outside Scholar, CELS
Adina Lundy, Lecturer/ Teaching Professor, CHS	Jessica Adams, Lecturer/ Teaching Professor, CELS
Andrew Cary, Lecturer/ Teaching Professor, CELS	Blake Ushijima, Outside Scholar, CELS
Cathleen Wigand, Outside Scholar, CELS	Niku T'arhechu T'arhesi, Tenure-track, CAS
Jean Gordon, Tenure-track, CHS	Weiwei Jia, Tenure-track, COE
Casey McGregor, Tenure-track, CHS	Nicholas Pizzo, Tenure-track, GSO

Erin Peck, Tenure-track, GSO

IV. New Business

- A. EGRA Awards and Feedback Topic was tabled and will be revisited at the next Graduate Council meeting.
- V. Graduate Curriculum (Kuali Agenda) (Mouw)

COURSE CHANGES

COLLEGE OF ARTS AND SCIENCES

LSC 539 | Business Information

(3 crs.) An introduction to many aspects of business information services, as well as to business information in all formats. This course will emphasize services in business libraries and information centers, and the fields of corporate intelligence and knowledge management will also be considered and discussed. (Lec. 3/Online) Pre: LSC 504 or permission of instructor.

★ Approved

LSC 540 | Humanities Information and Materials

(3 crs.) Information needs and services of all areas of the humanities. Unique aspects of library services and materials in all formats will be considered. Pre: LSC 504 or permission of instructor.

★ Approved

Course deletion

Course deletion

LSC 542 | Library Materials in Science and Technology

(3 crs.) Library resources in science and technology, including the major works, serial publications, and reference and bibliographical materials. (Lec. 3) Pre: LSC 503 and 504 or permission of instructor.

★ Approved

LSC 543 | Government Publications

(3 crs.) Survey of the publishing activities and publications of national, state, and local governments with emphasis on the publications of the United States government. (Lec. 3) Pre: LSC 504 or permission of instructor.

★ Approved

LSC 547 | Info Storage and Retrieval and Online Searching and Services Change in title and prereq (3 crs.) Theory, methods, evaluation, and research of analyzing, storing, indexing languages, information storage media, information storage and retrieval systems, and information seeking and retrieving in libraries and information services. (Lec. 3/Online)

★ Approved

LSC 593 | Independent Work

(1-6 crs.) Supervised reading or investigation in areas of special interest. Student must obtain written approval prior to registration for the semester for which the study is proposed. (Independent Study) Pre: 18 hours of library science with B average and permission of instructor; LSC 557 strongly recommended. LSC 593 and 595 may be repeated for a combined total of 6 credits.

★ Approved

LSC 595 | Apply and Reflect: Professional Field Experience

(1-6 crs.) Directed field experience applying theory to practice in libraries, information centers, and related organizations. Jointly supervised by a member of the faculty and a professional in the cooperating institution. (Practicum/Online) LSC 595 may be repeated for a total of 6 credits. Pre: 18 hours of LSC with a B average and permission of instructor.

★ Approved

WRT 534 | Visualizing Environmental Advocacy

(3 crs.) Cross-listed as (WRT) NRS 530. Examines visual approaches to environmental advocacy; analyzing and writing about visuals in journal articles, scientific research, proposals, popular press; rhetorical analysis of scientific visuals and visualization. (Lec. 3) Pre: WRT 104 or 106 or equivalent, or permission of instructor; graduate standing or senior status.

★ Approved

COLLEGE OF BUSINESS

BAI 455 | Business Analytics and Artificial Intelligence Applications Change in description and title

(3 crs.) Intermediate business applications of Business Analytics and Artificial Intelligence. (Lec. 3) Pre:BAI 210, STA308 or STA409; ACC (BUS) 202, FIN (BUS) 220, MGT (BUS) 341, SCA (BUS) 255, MKT (BUS) 265, and senior standing in a degree granting college; or permission of instructor.

★ Approved

TABLED MAC 507 | International Accounting

course

(3 crs.) Covers interpretation of international financial statements, focusing on foreign currency exchange, comparative accounting principles and disclosures, and audit reports. Uses actual financial statements in case analysis. (Lec. 3/Online) Pre: ACC (BUS) 402 or permission of instructor.

Change in title and description

Cross-list

Online version of existing

3

Course deletion

Course deletion

Course deletion

COLLEGE OF EDUCATION

EDP 613 | Introduction to Quantitative Research (3 crs.) Educational research data are collected, quantitatively analyzed and interpreted. Applications of the general linear model to a variety of research designs and analytic strategies are emphasized. (Lec. 3/Online) Pre: Admission to Education PhD or permission of instructor.

★ Approved

COLLEGE OF ENVIRONMENTAL & LIFE SCIENCES

ENT 455 | Sustainable Pest Management (3 crs.) Review of historical and current pest management practices with respect to insect ecology. Discussion of pest-management systems emphasizing sustainable practices such as biological control, resistant plants and ecosystem redesign. (Lec. 3) Pre: PLS 200 or ENT 385 or permission of instructor.

★ Approved

COLLEGE OF HEALTH SCIENCES

HDF 570 | Preventive Research MethodsChange in title, convert ot 7 week online format(3 crs.) Students will learn how to analyze and write about research and develop a research strategy in prevention
science. Students will also learn applied methods.and how to conduct basic analyses. (Seminar/Accelerated Online
Program)

★ Approved

HDF 598 | Advanced Research Study in Human Development and Family Sci

Online version of existing course

(1-3 crs.) Survey of important research contributions significant to the understanding of human development and relationships. (Independent Study/Accelerated Online Program)

★ Approved

NEW COURSES

COLLEGE OF ARTS AND SCIENCES

ART 505 | UI Design: Styling and Prototyping

(3 crs.) This course introduces students to the theory and practice of user interface design, focusing on visual communication tools and skills to facilitate prototyping. Students will acquire knowledge of the UI design thinking process centering on the user's visual experience. (Accelerated Online Program) Pre: Enrollment in the UI User Interface Design Certificate Program.

★ Approved

ART 506 | UI Motion Design

(3 crs.) This course introduces motion design in user experience within the principles of communication, orientation, and correlation. Students will learn how motion design can provide users more meaningful experiences and interactions. (Accelerated Online Program) Pre: Enrollment in the UI User Interface Design Certificate Program.

★ Approved

ART 507 | UI Icon Design

(3 crs.) This course introduces and develops the skills to conceptualize and design icons for user interfaces. Students will learn to generate UI icon sets through visual rhetoric and shape form creation. (Accelerated Online Program) Pre: Enrollment in the UI User Interface Design Certificate Program.

★ Approved

ART 508 | UI Information Visualization Design

(3 crs.) This course focuses on design, creation, application, and evaluation of information visualization for user interfaces. Students will organize, visualize, and communicate information visualizations and implement them on multiple platforms. (Accelerated Online Program) Pre: Enrollment in the UI User Interface Design Certificate Program.

★ Approved

CHM 561 | Understanding Complexities of Chemistry and STEM Learning

(3 crs.) Advanced discussion of discipline-based education research and learning theories that inform chemistry & STEM education. Emphasis is on how people learn which informs research designs, pedagogical decisions, and student experiences. (Lec. 3) Pre: Graduate student in the Department of Chemistry or permission from instructor.

★ Approved

COLLEGE OF EDUCATION

EDC 436 | Embracing the Digital Era in Early Childhood Education

(3 crs.) This course explores the question posed by Faith Rogow (2022), "How have digital communication technologies changed what it means to be literate, and what do the changes in literacy mean for our practice as educators?" Intentional digital technology integration is less about 'what' tools to use but more about 'how' we use digital tools to engage, motivate, and build agency for young children. Prospective teachers will discover ways in which to intentionally incorporate developmentally appropriate digital technologies into instructional practices, uncover personal and professional biases towards digital technologies in early childhood settings, and move towards an educational perspective that centers on the most appropriate pedagogical practices for the diverse communities in which we work. (Lec. 3/Online) Pre: Admission to the College of Education or the Early Childhood Education Program, or by permission of instructor.

- ★ Approved
- ★ 2 Abstained

EDC 520 | Translanguaging Pedagogy

(3 crs.) This course offers an introduction to the concept of translanguaging as a theoretical framework and pedagogical approach for understanding and leveraging bi/multilingual students' linguistic resources across diverse educational contexts. (Online)

- ★ Approved
- ★ 2 Abstained

EDC 614 | Introduction to Mixed Methods Research in Education

(3 crs.) Introduction to methods of collecting and analyzing combinations of quantitative and qualitative data for educational research. Focus on practical applications, paradigmatic issues, balancing methods, and analysis of exemplary studies. (Seminar) Pre: EDC 612 and 613, admission to Education PhD program, or by permission of instructor

- ★ Approved
- ★ 2 Abstained

EDS 522 | Disability Law & Ethics for Special Educators

(2 crs.) This course will prepare special education graduate candidates to examine the most salient social, historical and legal foundations of special education and consider current issues confronting the field, such as full inclusion, disability rights, disproportionality, multi-tiered systems and supports (MTSS), implicit bias, and professional ethics. The course will focus on the civil liberties of students with disabilities, and the legal obligations of their schools and teachers. Common characteristics and supports (accommodations and modifications) of high-incidence disabilities will be discussed. (Online) Pre: Admittance into the MA in Education Program (with Special Education specialization) or by approval of instructor

- ★ Approved
- ★ 2 Abstained

EDS 523 | Eligibility & Assessment in Special Education

(3 crs.) This course will prepare special education graduate candidates to understand the eligibility process as outlined by the Individuals with Disabilities Education Act (IDEA) (2004). Candidates will learn how assessment practices and data gathered from diagnostic testing are used to inform curriculum and instructional approaches for children with high-incidence disabilities. Candidates will learn how to administer, score, and interpret a variety of assessments used in determining eligibility of special education services. The course will include an examination of formal and informal assessment strategies, including the use of individually administered norm-referenced instruments, curriculum-based assessments, interview techniques, and behavioral observation. (Lec. 2, Online) Pre: Admittance into the MA in Education Program (with Special Education specialization) or by approval of instructor

- ★ Approved
- ★ 2 Abstained

EDS 524 | Transition Planning for Students with Disabilities

(2 crs.) This course will prepare special education graduate candidates for the knowledge and skills needed to support students in post-secondary transition planning. The course will highlight post-secondary transition practices related to: a) data-based decision making, b) post-secondary employment, c) college planning, d) daily functional living skills, e) person-centered planning, f) caregiver/family involvement, g) federal and state laws, and h) interagency collaboration. Candidates will become familiar with transition assessment, developing transition Individualized Education Programs (IEPs), and planning supports for students transitioning out of high school. (Online) Pre: Admittance into the MA in Education Program (with Special Education specialization) or by permission of instructor

- ★ Approved
- ★ 2 Abstained

EDS 570 | Middle Level Special Education Residency

(1 cr.) This clinical residency course will prepare special education graduate candidates for supporting students with disabilities at the middle school level. This middle school extension will allow candidates who are seeking (or already have) either elementary special education or secondary special education to lead toward middle school special education certification. This experience is required as part of the full-time residency for middle school special education certification. Candidates will work collaboratively with parents, general education teachers, instructional aides, and other professionals as appropriate in order to plan, deliver, manage, and evaluate the instruction of students with disabilities in mainstream settings. Candidates will also assist in the development of Individual Education Programs (IEP) and participate in special education meetings and in the preparation of required special education paperwork. (Practicum) Pre: Admittance into the MA in Education Program (with Special Education specialization) or by approval of instructor. S/U credit.

- ★ Approved
- ★ 2 Abstained

EDS 575 | Special Education Residency I

(1 cr.) This clinical residency course will prepare special education graduate candidates for supporting students with disabilities at the elementary or secondary education levels. Candidates will be placed in settings that mirror the certification area (elementary special education or secondary special education) they are seeking. This beginning clinical experience is required as part of the full-time residency for special education certification. Candidates will work collaboratively with parents, general education teachers, instructional aides, and other professionals as appropriate in order to plan, deliver, manage, and evaluate the instruction of students with disabilities in mainstream settings. Candidates will also assist in the development of Individual Education Programs (IEP) and participate in special education meetings and in the preparation of required special education specialization) or by approval of instructor. S/U credit.

- \star Approved
- ★ 2 Abstained

EDS 580 | Special Education Residency II

(3 crs.) This clinical residency course will prepare special education graduate candidates for supporting students with disabilities at the elementary or secondary education levels. Candidates will be placed in settings that mirror the certification area (elementary special education or secondary special education) they are seeking. This experience is required as part of the full-time residency for special education certification. Candidates will work collaboratively with parents, general education teachers, instructional aides, and other professionals as appropriate in order to plan, deliver, manage, and evaluate the instruction of students with disabilities in mainstream settings. Candidates will also assist in the development of Individual Education Programs (IEP) and participate in special education meetings and in the preparation of required special education paperwork. (Internship) Pre: Admittance into the MA in Education Program (with Special Education specialization) or by approval of instructor. S/U credit.

- ★ Approved
- ★ 2 Abstained

EDS 590 | Capstone Research in Special Education

(2 crs.) This course is designed to prepare special education graduate candidates to review, analyze, and interpret research in special education for the various instructional, supervisory, consultative, and collaborative roles required of special education teachers. The course will require candidates to engage in reflection and evaluation of professional practices required of special educators. Candidates complete a culminating capstone project that utilizes evidence-based practices to assess the effectiveness of their teaching. (Lec. 1, Online) Pre: Admittance into the MA in Education Program (with Special Education specialization) or by permission of instructor

- ★ Approved
- ★ 2 Abstained

COLLEGE OF ENGINEERING

TABLED ELE 555 | Probabilistic Robotics

(3 crs.) This course is designed to provide fundamental and applied knowledge on methods for online estimation, localization, mapping and SLAM in systems, with particular focus on practical application in robotics. (Accelerated Online Program) Pre: Graduate standing; permission of instructor

TABLED ELE 557 | Adaptive Control for Robotic Systems

(3 crs.) The course covers classical adaptive control theory, including Lyapunov stability, positive real functions, Kalman-Yakubovich lemma, persistent excitation, neural network approximation, and several nonlinear adaptive control techniques. Applications will focus on industrial robot manipulators and autonomous mobile robots. (Accelerated Online Program) Pre: Graduate standing; permission of instructor

TABLED ELE 558 | Cyber-Physical Security Fundamentals

(3 crs.) This course is designed to provide fundamental and applied knowledge for cyber security of cyber-physical systems, such as power grid environments. (Accelerated Online Program) Pre: Graduate standing; permission of instructor

TABLED ELE 567 | Medical Instrumentation

(3 crs.) This course is designed to provide fundamental and applied knowledge on medical sensors and electronics, with particular focus on practical application in medical instrumentation. (Accelerated Online Program) Pre: Graduate standing or permission of instructor

TABLED ELE 570 | Wearable Internet-of-Things

(3 crs.) A tutorial-driven, project-based, hands-on course with carefully crafted practical tutorials on Internet of things and wearable technologies that allow students to learn programming, coding, circuit designs, and prototyping. (Accelerated Online Program) Pre: graduate standing; permission of instructor

TABLED ELE 575 | Brain Signal Processing and Applications

(3 crs.) This course presents novel interfaces between brain and computer devices, and covers different components of a BCI system including signal acquisition, signal preprocessing, feature extraction, and feature translation. (Accelerated Online Program) Pre: Graduate standing; permission of instructor. Familiarity with topics in digital signal processing and random process is highly recommended.

TABLED ELE 576 | NeuroRobotics

(3 crs.) As an interdisciplinary course, this course will cover tools and applications in the field of Neural Engineering and neuroscience with an emphasis on real-time corticomuscular-robot interaction/control applications. (Accelerated Online Program) Pre: Graduate standing; permission of instructor

TABLED ELE 579 | Detection and Estimation Theory

(3 crs.) This course is designed to provide students with a robust foundation in signal detection and estimation theory, empowering them to extract valuable insights from data and select appropriate algorithms for diverse scenarios. (Accelerated Online Program) Pre: Graduate standing; permission of instructor

TABLED ISE 571 | Industry 4.0 Fundamentals

(3 crs.) Overview of the industrial automation field in the context of Industry 4.0. It familiarizes participants with the fundamental principles of industrial controllers, encompassing their constituent components and systems, as well as their contemporary deployment in manufacturing facilities. It underscores the significance of Industry 4.0 and its ramifications on the automation domain. Specific topics of focus include sensor technologies, feedback control, autonomous mobile robots (AMR), industrial communication networks, and rugged embedded systems. (Accelerated Online Program) Pre: Bachelors or advanced standing in STEM major, or permission of instructor.

TABLED ISE 572 | Machine Learning for Industry 4.0

(3 crs.) Explores the applications of machine learning techniques in Industry 4.0. The course will provide an in-depth analysis of various techniques such as deep learning, neural networks, and data analysis. These techniques will be examined in the context of predictive maintenance, part status estimation, quality control, intelligent robotics, and other relevant areas. (Accelerated Online Program) Pre: Bachelors or advanced standing in STEM major, or permission of instructor.

TABLED ISE 573 | Manufacturing Execution Systems

(3 crs.) Explores Manufacturing Execution Systems (MES) in the context of Industry 4.0, covering topics such as real-time data acquisition, production scheduling, quality management, and integration with other systems. (Accelerated Online Program) Pre: Bachelors or advanced standing in STEM major, or permission of instructor.

TABLED ISE 575 | Industry 4.0 Special Projects

(3 crs.) Students will apply their knowledge about Industry 4.0 and machine learning to a real-world case study. The case study will be chosen to provide a comprehensive and practical problem that requires various Industry 4.0 techniques. Students will work in teams to develop and present a solution to the case study, incorporating their knowledge of machine learning techniques, data analysis, and problem-solving skills. Through this course, students will gain hands-on experience and deepen their understanding of the challenges and opportunities of modern manufacturing and intelligent systems in the context of Industry 4.0. (Accelerated Online Program) Pre: Bachelors or advanced standing in STEM major, or permission of instructor.

TABLED NUE 511 | Nuclear Reactor Analysis

(3 crs.) Atomic and subatomic particles, atom density, binding energy, radioactive decay, neutron flux, cross-sections, fission/fusion processes, reactor kinetics and control, neutron life cycle, criticality, neutron diffusion, reactivity feedback, and reactor designs. (Online) Pre: MTH 244 or MTH 362, or by permission of instructor

TABLED NUE 512 | Nuclear Design and Safety Analysis

(3 crs.) Design and analysis of nuclear power systems, including PWR, BWR, SMR, MSR, VHTR, microreactors, Gen IV, naval reactors, and fusion power. Safety analysis of nuclear systems. (Online) Pre: MCE 341 or CHE 314, or by permission of instructor.

TABLED NUE 513 | Nuclear Fuel Cycle and Performance

(3 crs.) Nuclear fuel life cycle, including mining, nuclear materials production, enrichment, nuclear fuels, burnup, and storage of spent nuclear fuel. Advanced reactor designs, nuclear fuels, and advances in the nuclear fuel cycle. (Online) Pre: MCE 341 or CHE 314, or by permission of instructor.

TABLED NUE 516 | Nuclear Radiation Damage in Materials

(3 crs.) Microstructure fundamentals, material defects, diffusion, nuclear fission, neutron interactions, radiation damage effects, swelling, creep, mechanical property variations, cladding and control rods, numerical simulation of atomic displacement cascades. (Online) Pre: MTH 244 or 362 and CHE 314 or MCE 341; or by permission of instructor.

COLLEGE OF ENVIRONMENTAL & LIFE SCIENCES

MAF 582 | Quantitative Methods in Marine Affairs

(3 crs.) This is an introductory level statistics class that will help you gain knowledge and experience in statistical methodology. The class will emphasize practical applications as it relates to real life problems. Topics include a review of descriptive statistics and inference for one and two population means. Additional topics include introduction to chi-square tests, correlation analysis, simple and multiple linear regression, one and two-way analysis of variance, logistic regression, and some non-parametric procedures. (Lec. 3)

★ Approved

COLLEGE OF PHARMACY

PHC 530 | Research Ethics, Integrity & Professional Practice

(3 crs.) Provides essential training on research ethics, scientific integrity, and professional skills to succeed as a scientist. Fulfills Federal "responsible conduct of research" training requirements for graduate students and grant awardees. (Lec. 3) Pre: Graduate standing

★ Approved

PROGRAMS CHANGES

COLLEGE OF ARTS AND SCIENCES

Libraries, Leadership & Transforming Communities Track Adding an additional course option

Ever since the inception of the Libraries, Leadership, and Transforming Communities Track (LLTC) in the Masters of Library and Information Studies degree (MLIS), there has only been one course for students to "choose" from in the Public Relations and Advocacy category. But there has also always been the intention of creating a course that would be added to that category to give students a choice. LSC 519: Advocacy for Libraries was added to the catalog in AY 2021-22, so this Notice of Change is to add that course as an option in the Public Relations and Advocacy Category so that students can choose from LSC 517: Community Relations for Libraries and LSC 519: Advocacy for Libraries.

We are also seeking to add the optional courses LSC 511 and LSC 512 in one of the categories (Communities and Contexts) since those classes would fulfill the underlying theme of that category in the LLTC track.

Since the MLIS has become an Accelerated Online Program, we also need to remove the COM classes from the track as options because those courses are not available in accelerated online format.

- ★ Approved
- ★ 1 Abstained

COLLEGE OF ENVIRONMENTAL & LIFE SCIENCES

Environmental and Natural Resource Economics - MS Removin

Removing GRE req. and adding alt. course

(1) Removing the GRE requirement for admission: Taking the GRE can be an impediment for some potential applicants to apply, given its cost and locations where the exam is held -- these problems can be especially acute for international students. Removing the GRE requirement will allow more applicants to apply to our program. We aim for this change will be effective for the 2023-24 admission cycle (for students who would enroll Fall 2024).

(2) Adding alternative course to for EEC 502: EEC 502 is a required (core) course. Because it is offered every other year, for some students, especially the ABM students, taking this course in a timely manner can be nearly impossible. We are adding WRT533 (Seminar in Graduate Writing in Life Sciences) and BES521 (Rhetorical Field Methods for Science Communication) as alternative courses in place of EEC 502 on its off-year. We aim for this change will be effective immediately for students who enrolled Fall 2023.

★ Approved

Environmental and Natural Resource Economics - PhD Removing GRE requirement

Removing the GRE requirement for admission: Taking the GRE can be an impediment for some potential applicants to apply, given its cost and locations where the exam is held -- these problems can be especially acute for international students. Removing the GRE requirement will allow more applicants to apply to our program. We aim for this change to be implemented in the 2023-24 admissions cycle.

★ Approved

COLLEGE OF EDUCATION

TABLED Special Education - MA

Rationale for Changes to Special Education Graduate Program It is important to note: there are 7 "new" courses being proposed in this curricular change. We are NOT changing the program more than 25% even though this many courses are being proposed. The reason for the changes and proposing new courses is to comply with the changes required by the Rhode Island Department of Education (RIDE) and certification regulation updates in special education which took effect in August 2020.

COLLEGE OF ENGINEERING

Chemical Engineering - PhD

The department voted to remove CHE 570: Research Methods in Engineering as a required course for our PhD program. CHE 570 is cross-listed with EGR 570. We intend to continue offering CHE/EGR 570 as a professional elective course for graduate and undergraduate students. There is college-wide interest in this course and we will be discussing possible options to deliver this course more widely with contributions from other engineering departments. This could include co-teaching. Removing CHE 570 as a required course was motivated by three factors. First, CHE graduate students are gaining much of the knowledge and skills through their research projects with their mentors, through our seminar courses CHE 501 and 502 (required each semester whether for credit or not), and through the university's responsible conduct of research series. Second, removing this required course is one step we will be taking to reduce our PhD credits from 72 to 64. In the meantime, the requirement for CHE 570 is replaced in the program of study by an elective. Third, this course is only required for our PhD program, and consequently it has been under enrolled in comparison to the desired URI course size. The last time it was offered, for example, there were six students enrolled in the course and the students ranged from first year to fourth year in their PhD programs. Teaching "research methods" provides less value to students who are already in their fourth Ph.D. year of conducting research. We do not have a recurring critical mass of new, incoming PhD students to enroll in this course regularly.

★ Approved

Industrial and Systems Engineering - PhD

Reduce the total of number of credits for the PhD degree from 72 to 64. This is consistent with the new requirements set by the Graduate School.

★ Approved

Mechanical Engineering and Applied Mechanics - PhD

Reduce the total of number of credits for the PhD degree from 72 to 64. This is consistent with the new requirements set by the Graduate School.

★ Approved

Adding 7 new courses to curriculum

Removing a required course

Reducing credit requirement

Reducing credit requirement

COLLEGE OF ARTS AND SCIENCES

User Experience (UX) Design Graduate Certificate

The User Experience (UX) Design Graduate Certificate prepares students to embark on meaningful careers in the dynamic field of UX. Students learn the methodologies, technologies, and tools at the forefront of UX design. Graduates are equipped to make a positive impact on society by designing experiences that prioritize inclusivity, social justice, sustainability, and user well-being.

★ The User Experience (UX) Design Graduate Certificate program proposal was previously approved during the Graduate Council meeting held on November 6, 2023 and was mistakenly added.

User Interface (UI) Design Certificate

The UI User Interface Design Certificate is a four-course accelerated program focused on the user's visual experiences. The program provides students with the crucial knowledge, and the technical and practical skills to become proficient UI designers. Students will create interface projects integrating branding, animation, pattern-making, and front-end visualizations to depict intuitive user experiences. The certificate prepares graduates to enter professional design careers that are currently in high demand.

Students are required to take 12 credits:

Core Courses in the Certificate:

- * ART 505 UI Design: Styling and Prototyping
- * ART 506 UI Motion Design
- * ART 507 UI Icon Design
- * ART 508 UI Information Visualization Design
 - ★ Approved

COLLEGE OF ENGINEERING

Chemical Engineering ABM (MS)

Accelerated 5-year Bachelor's/Master's (ABM) Program in Chemical Engineering

The Accelerated Bachelor's/Master's program in Chemical Engineering at URI satisfies both the B.S. and M.S. requirements in full and allows for undergraduate courses to be applied and count for up to one-third of the total credits required in the master's program. Students may also transfer up to one-fifth of the required master's credits of advanced standing credits not counted towards the B.S. For example, in a 30-credit program, 10 credits can be counted from the B.S. degree requirements and an additional 6 advanced standing credits can be transferred. Only 500 and 600-level courses, as well as 400-level courses designated for graduate credit, can be applied towards a M.S. degree. Students must complete the requirements for their M.S. by the end of their additional year – failure to do so will negate the option to apply one-third of the credits taken during a B.S. The URI Chemical Engineering ABM program is governed by "Appendix K" of the URI Graduate School Manual. The M.S. program component requires 30 credits, which are detailed on the department website for Thesis and Non-Thesis options.

Guidance for completing courses and applying

To achieve completion of the ABM program within a 5th year, it may be necessary to shift some credits earlier to stay within the maximum (12 credits per semester) of a full-time graduate student. This can be accomplished in one or more of the following ways:

• Choose professional electives that will count towards a M.S. degree.

Take extra professional electives during the 4 years of the undergraduate program. These would count as "advanced standing credits." CHE 491/492 are not allowed to be transferred or double-counted from B.S.
Research credits can be taken during the summer preceding and following the master's year (3 per summer). For the Thesis Option, this would allow students to conduct research that could be used in their M.S. Thesis. Research credits from a B.S. program would only count as "advanced standing credits." This may entail extra out-of-pocket tuition costs.

For the Thesis Option, students are encouraged to begin undergraduate research by the junior year. This ensures that a student's research skills and abilities on a project reach a sufficiently advanced stage for research and results during year 5 to progress enough to satisfy the needs for a master's thesis. Research skills are not enough; continuing on the same project is typical in order to bring in enough context knowledge. Satisfying 6 of the 12 professional elective credits in the undergraduate program is a good way to receive this research experience while simultaneously enabling upper-level professional elective courses to move forward into the graduate program.

- ★ Motion to approve new program proposal for Chemical Engineering ABM (MS) with amendment to the description changes.
 - \circ Approved

Future Autonomous Systems Graduate Certificate

The next generation of autonomous systems will need to safely an effectively perform complex tasks in unknown conditions while protecting critical systems and sensitive information. This program will guide students through state-of-the-art solutions for autonomy, estimation, and cyber-security to develop highly sought-after skills in sensor fusion, robotics, automation, and information technologies.

★ Motion to table new program proposal for Future Autonomous Systems Graduate Certificate
 ○ Approved

Wearable & Neuro-Technologies Graduate Certificate

The next generation of wearable and neurotechnologies will need to safely and effectively perform complex tasks in unknown conditions while protecting critical systems and sensitive information. This program will guide students through state-of-the-art solutions for wearable and neurotechnologies to develop highly sought-after skills in signal processing, robotics, biomedical instrumentations, and wearable internet-of-thing (IoT).

★ Motion to table new program proposal for Wearable & Neuro-Technologies Graduate Certificate ○ Approved

VII. Adjournment

★ Chair Slitt asked for a motion to adjourn. The meeting was adjourned at 3:46 p.m.

Minutes approved by the Graduate Council on February 12, 2024

Brenton DeBoef, Dean of the Graduate School