

To: Members of the 2022-2023 Graduate Council

From: Angela Slitt, Chair
Brenton Deboef, Dean
Colleen Mouw, Associate Dean

Date: March 6, 2023

RE: Agenda for Meeting Number 552 of the Graduate Council to be held on Monday, March 6, 2023 at 2:00 p.m. via Zoom

I. Call to order

II. Approval of Minutes - Meeting No. 552, February 13, 2023

III. Announcements

- A. Professional development update (*Mitnick*)
- B. Graduate School Fellowships & Scholarships Update (Mouw)
- C. Admission & enrollment data update (*Kulesh*)
- D. Strategic planning & key performance indicators update (*DeBoef*)
- E. Recent appointments to the Graduate Faculty (*Mouw*)
 - Samuel, A. Soule, Tenure-track, GSO
 - H. Zafer Yuksel, Tenure-track, COB
 - Jason D. Chaytor, Adjunct, COE
 - Drew Zhang, Tenure-track, COB
 - Steve Liu, Tenure-track, COB
 - Matthew J. Cabral, Adjunct, COE
 - Constantine Anagnostopoulos, Adjunct, COE
 - Martin K. Nielsen, Outside Scholar, CELS
 - Kira Mizell, Adjunct, CELS
 - Elisabeth Widom, Adjunct, CELS
 - Martin J. Bide, Emeritus, COB
 - Simon L. Dove, Outside Scholar, CELS/COP
 - Christopher Kincaid, Tenure-track, GSO

IV. New Business

- A. MPS Program Update (*Mouw & DeBoef*)
- B. Revisions to Graduate Manual sections 5.31, 7.54, 4.25.1
- C. Revisions to Graduate Manual section 8
- D. Revisions to Graduate Manual section 10

V. Graduate New Program & Tracks (proposals through Kualii) (DeBoef)

NOTICE OF CHANGE

Fisheries Science Graduate Certificate - Change in credit requirements, courses and description.

International Relations MA - Change in course requirements and description

NEW PROGRAM AND TRACK PROPOSALS

Coastal Resilience Graduate Certificate - The Coastal Resilience Graduate Certificate Program provides students and professionals with advanced training needed to find professional employment in the field of coastal resilience.

Education Ph.D. - The Ph.D. in Education prepares equity-oriented scholars to apply, critique, design, and implement cutting edge research to improve educational opportunities across all levels of the educational spectrum.

VI. Graduate Curriculum (proposals through Kualii) (Mouw)

400-LEVEL NEW COURSE PROPOSALS

COLLEGE OF ENGINEERING

ELE 446 Introduction to Power Electronics

(3 crs.) Cross-listed as (ELE 446) ELE 556. Principles and applications of Power Electronics, including power devices and DC/DC converters. Magnetic circuit theory. Fundamentals of dc-dc inverters, ac-dc rectifiers, direct ac-ac converters, and applications to three-phase systems. (Lec. 3) Pre: ((ELE 212 or 220 or OCE 206) and ELE 313 and MTH (244 or 362)) or permission of instructor.

500-LEVEL NEW COURSE PROPOSALS

COLLEGE OF ARTS & SCIENCES

CSC 546 Algorithms for Big Data

(4 crs.) Explore algorithms for data that outpaces computing. Mathematically rigorous models for designing efficient algorithms for large data sets. Sketching and streaming, locality-sensitive hashing, entropy-scaling, manifold learning, and others. (Seminar) Pre: CSC 440 and permission of the instructor

NEW 598 Integrated and Applied Capstone

(3 crs.) In this course, students integrate knowledge and concepts acquired during two different certificate programs offered by URI Online through development of a project related to a problem of practice. During the project, students engage in the process of identifying, evaluating and developing a solution to address the problem and present it to a non-expert audience. Pre: Admission is required to the Master of Professional Studies (new program), completion of the requirements for two URI online graduate certificate programs, and completion of MPS Applied Leadership and Ethics (new course and new course code)none

COLLEGE OF BUSINESS

(TABLE) LHR 546 Negotiation and Alternative Dispute Resolution

(3 crs.) Examination of the interpersonal dynamics of negotiations and conflict resolution processes, including interest-based or collaborative bargaining in a variety of contexts; e.g. labor relations, community, environmental, divorce, racial, commercial. (Lec. 3 - online) Pre: graduate standing or permission of Labor Research Center Director.

COLLEGE OF EDUCATION & PROFESSIONAL STUDIES

EDC 597 Foundations in Multilingual Learner Education for Admin

(3 crs.) This course provides foundational knowledge of issues related to education for Multilingual Learners (MLLs). Participants will learn about federal and state level policies, research on language acquisition and cultural responsiveness, and evaluate district and school level practices to improve education for MLLs. All learning will be directly aligned to the Rhode Island Standards for Educational Leaders (RISEL). (Online) Pre: Currently hold a school-based leadership certification (e.g. administrator, superintendent); permission of instructor.

EDC 598 Advanced Study in Multilingual Learner Education for Admin

(3 crs.) Participants learn about language assistance programs, how to staff such programs, instructional methods and approaches for MLLs, the importance of multilingualism and equitable assessment practices for MLLs, how to evaluate curriculum choices and become an agent of change to improve education for MLLs in their district and/or school. (Online) Pre: Currently hold a school-based leadership certification (e.g. administrator, superintendent); permission of instructor.

COLLEGE OF THE ENVIRONMENT AND LIFE SCIENCES

SAF 547 Political Ecology for Environmental and Life Sciences

(3 crs.) This seminar gives graduate students in environmental and life sciences an interdisciplinary foundation in social science dimensions of their discipline(s) and topic(s) through introduction to the field of political ecology. (Seminar) Pre: Graduate standing. Seniors may join the course with permission of the instructor.

GRADUATE SCHOOL OF OCEANOGRAPHY

(TABLE) OCG 577 Modeling the Marine Carbon Cycles

(3 crs.) Development of idealized mathematical and numerical models of the marine carbon cycles over various spatial and temporal scales. The numerical modeling component, using Python, accommodates beginner programmers. (Lecture) Pre: none

600-LEVEL NEW COURSE PROPOSALS

COLLEGE OF EDUCATION & PROFESSIONAL STUDIES

EDC 624 Applied Educational Quantitative Data Analysis

(3 crs.) Expanding the multiple regression framework introduced in previous coursework to include nested data, longitudinal data, and non-continuous outcome variables. (Lec. 3) Pre: Admission to the Education PhD Program and completion of EDP 613 or permission of instructor.

EDC 625 Engaged Research Apprenticeship in Education

(3 crs.) The course offers students an opportunity to delve deeply into an educational research project under the supervision of a faculty member. This course is designed to foster robust research skills and a holistic learning community where students learn from their faculty mentor and each other. Working in teams, students will develop research skills such as: data collection, data analysis, and manuscript writing. (Lec. 3) Pre: Admission to the Education PhD Program and permission of instructor.

400-LEVEL COURSE CHANGES

COLLEGE OF THE ENVIRONMENT AND LIFE SCIENCES

MAF 496 International Development Seminar

(3 crs.) Seminar for advanced-level students interested in deepening their knowledge of global sustainable development challenges and solutions, focus on the global South. (Seminar) Pre: MAF 350/NRS 300 or permission of instructor.

Change in title and allowing for graduate credit

PSC 435 Theories of International Conflict

(4 crs.) Analysis of theories of international conflict and political violence. Topics may include interstate war, rivalry, civil war, ethnic and religious conflict, and terrorism. (Lec. 3, Project 3) Pre: PSC 210 or 211 or 310 or permission of the instructor.

Change in description, prerequisites, and allowing for graduate credit

PSC 431 International Relations

(4 crs.) Analysis of the various theories of international relations and study of the major factors influencing the politics of international conflict, trade, organizations, and other interactions between international actors. (Lec. 3, Project 3) Pre: PSC 212 or 310 or permission of instructor. (D1) (C2)

Allowing for graduate credit

500-LEVEL COURSE CHANGES

COLLEGE OF ENGINEERING

EGR 501 Numerical Methods for Engineers

(3 crs.) An introduction to numerical analysis and programming tools for engineers focusing on Finite Difference formulations. Implementation of the numerical methods includes common engineering Partial Differential Equations. The programming will cover fundamentals and additional tools in data processing, analysis, and visualization. Pre: Graduate standing or permission of instructor.

Change in title, prerequisites, and description

EGR 525 Pathways for Innovation and Entrepreneurship in Defense

(3 crs.) Pathways to Innovation and Entrepreneurship in Defense(PIE-D) takes an interdisciplinary approach to America's hardest national security challenges. These complex challenges require multi-faceted teams integrating policy, economics, and technology. (Lec. 3) Pre: Senior standing or permission of instructor.

Change in title and description

ELE 562 Biomedical Instrumentation Design

(3 crs.) Fundamentals of biomedical instrumentation, biocompatibility, medical device materials; safety, noise rejection, biomedical signal processing; measuring, recording, monitoring, and therapeutic devices. Not for undergraduate credit. Not open to students who have credit in ELE 489 or BME 461. (Lec. 3) Pre: graduate standing in electrical engineering or permission of instructor.

Delete course

(TABLE) ELE 588 Applied Machine Learning

(3 crs.) Introducing the foundations and methods of machine learning for rapidly growing applications in engineering. Topics include neural networks, decision tree learning, ensemble learning, support vector machines, reinforcement learning, among others. (Lec. 3) Pre: ELE 509 or permission of instructor.

Change in title, credits, prerequisites, and description

VII. Adjournment