The attached BILL titled, Curricular Report No. 2018-19-7 from the Graduate Council to the Faculty Senate (courses) was adopted by vote of the Faculty Senate on February 21, 2019.

The Bill is effective on the date of signature below.

[Signature]

Hillary Leonard
Chairperson of the Faculty Senate

February 21, 2019
SECTION I
Informational Matters

400-level course changes – undergraduate courses for graduate credit:

College of Arts and Sciences
Computer Science and Statistics

**CSC 411**  Computer Organization
Change in prerequisite to: “CSC 212 and student must be admitted to a degree-granting college.”

**CSC 412**  Operating Systems and Networks
Change in prerequisite to: “CSC 212 and student must be admitted to a degree-granting college.”

**CSC 415**  Introduction to Parallel Computing
Change in prerequisite to: “CSC 411 or ELE 305, and student must in admitted to a degree-granting college. In alternate years.”

**CSC 436**  Database Management Systems
Change in prerequisite to: “CSC 212 and student must be admitted to a degree-granting college.”

**CSC 440**  Design and Analysis of Algorithms
Change in prerequisite to: “CSC 212 and (CSC 340 or MTH/CSC 447) and student must be admitted to a degree-granting college.”

**CSC 445**  Models of Computation
Change in prerequisite to: “CSC 340 or CSC/MTH447 and student must be admitted to a degree-granting college. In alternate years.”

**CSC/CSF 462**  Secure Programming
Change in prerequisite to: “CSC 305”

**CSC 481**  Artificial Intelligence
Change in prerequisite to: “CSC 212 and student must be admitted to a degree-granting college.”

Philosophy

**PHL 451**  Symbolic Logic
Cross list with CSC 451
Change in prerequisite to: “Any one of the PHL 101 CSC 340, CSC/MTH 447, or MTH 180, or permission of instructor”
**500-level course changes:**

**College of Arts & Sciences**  
**Computer Science and Statistics**

**CSC 550**  
**Computer Algebra**

Change in prerequisite to: “CSC 440. In alternate years or permission of instructor.”

**College of Environmental and Life Sciences**  
**Geosciences**

**GEO 562**  
**Aqueous Geochemistry**

New title: Biogeochemical Cycles  
New Description: ‘Introduction to processes controlling water chemistry in low-temperature environments in the context of global biogeochemical cycles, including weathering, ion exchange, acid-bas chemistry, redox, mineral equilibria, isotopes, and modeling.”

**College of Engineering**  
**Chemical Engineering**

**CHE 570**  
**Research Methods in Chemical Engineering**

Cross list with EGR 570  
Change title to “Research Methods in Engineering”  
New Description: “Provide experience, practice, and knowledge in engineering research methodology, including defining a research problem, writing a research paper, giving presentations, finding relevant literature, applying scientific knowledge in practice, ethics, professionalism.”

**College of Health Sciences**  
**Human Development and Family Studies**

**HDF 565**  
**Family Therapy Practicum**

New description, method of instruction, and prerequisites:  
“Preparation for and practice of couple and family therapy. Live supervision, student-presented case material, and review of recordings of actual counseling sessions. Prerequisite: Admission to CFT program or permission of instructor. May be repeated for a maximum of 18 credits. (Practicum 3)”
SECTION II
Curricular Matters Which Require Confirmation
by the Faculty Senate

400-level New Course Proposal – undergraduate courses for graduate credit:

College of Environmental and Life Sciences
Natural Resource Science

NRS 442 Environmental Crisis Communication
Course description: “Effective communication requires strategy, clarity, and an audience-centric approach. Using case studies, this course will explore crisis communication theory and practice through the lens of recent environmental disasters. (Lec. 3)”

500-level New Course Proposals

College of Arts and Sciences
Library and Information Sciences

LSC 536 Media Smart Libraries
Course description: Students explore current trends in digital, media, and other literacies to learn how libraries can provide learning opportunities to advance the knowledge and competencies of users of all ages. (Online 3)

College of Environmental and Life Sciences
Cell and Molecular Biology

Marine Affairs

MAF 531 Environmental Justice
Course description: “Exploration of how race, class, gender, nationality, and ethnicity shape environmental inequalities. Topics include occupational health hazards, environmental social movements, public health concerns, and contested use of natural resources. Prerequisite: Graduate standing or instructor permission (Seminar 3)”

College of Business

MAC 511 Data Analytics for Accounting
Course description: “Introduces data analytics process and various applications of data analytics in accounting. Emphasis on hands-on learning experience on varied analytical tools using real-world data. Prerequisite: Graduate standing in accounting or permission of MS. in accounting director. (Online 3)”
College of Engineering
Electrical, Computer, and Biomedical Engineering

ELE 588 Optimization for Machine Learning Applications
Course description: “Introducing advances in optimization theory and algorithms for rapidly growing applications in machine learning such as linear regression, support vector machines, deep learning, and reinforcement learning. Prerequisite: Graduate standing, ELE 509 or equivalent, a thorough understanding of calculus, linear algebra, probability, and knowledge of computer programming, or permission of instructor (Lec. 4)”

Feinstein College of Education and Professional Studies
School of Education

EDC 526 Applied Linguistics for TESOL/BDL
Course description: “EDC 526 provides opportunities for teachers of English Learners to develop their understanding of the English language system (phonology, morphology, syntax, semantics, orthography, spelling, and pragmatics), and how differences between English and other languages affect L2 language acquisition, literacy, and metalinguistic awareness. Prerequisite: Acceptance into a Master’s program in the School of Education or permission of instructor. (Online 3)”

College of Pharmacy

PHC/CHE/OCG 579 Special Topics on Emerging Contaminants
Course description: “Introduction to emerging contaminants such as PFASs, focusing on their chemistry, detection, epidemiology, human health, metabolism, and remediation, as well as interdisciplinary collaboration, research translation, community engagement, and professional development. Prerequisite: Graduate standing (Lec. 2)”

2/21/19 - Removed per the request of the Graduate School, will be presented at the March meeting.
Notice of Change

College of Engineering
Department of Electrical, Computer, and Biomedical Engineering

Change in requirements for Electrical Engineering graduate program:

1. All full time MS and PhD students must enroll in ELE 601 Graduate Seminar every semester that it is offered.
2. Eliminate “significant independent research” course and “substantial paper” requirements for non-thesis MS students who take the comprehensive examinations.