

May 7, 2009

**Faculty Senate Curricular Affairs Committee
Four Hundred Seventy-First Report**

At the February 23, March 30, and April 20, 2009 meetings of the Curricular Affairs Committee the following matters were considered and are now presented to the Faculty Senate.

SECTION I
Informational Matters

A. College of Arts and Sciences

Department of Mathematics

- a. CHANGE: Description for MTH 108 by adding "Not open to students with credit in MTH 106 or MTH 109 and not for major credit in mathematics."
- b. CHANGE: Cross-Listing of MTH 109 (or PSC 109) by deleting PSC 109 and changing to "MTH 109" and description for MTH 109 by adding "Not open for students with credit in MTH 106 or MTH 108 and not for major credit in mathematics."

B. College of the Environment and Life Sciences

1. Department of Biological Sciences

- ADD: **BIO 263X Introductory Ecology Seminar (1)**
Seminar course for students enrolled in 262 and interested in an in-depth discussion of selected ecological topics. Class will focus on reading and discussing primary literature. (Seminar) Pre: 101 and 102 or equivalent. Must be taken concurrently with 262.

2. Department of Environmental and Natural Resources Economics

- CHANGE: Expiration for EEC 350X to permit a third offering in Fall 2009.

C. College of Human Science and Services

Department of Human Development and Family Studies

- CHANGE: HDF 225 by deleting the prerequisite.

D. College of Pharmacy

Department of Biomedical and Pharmaceutical Sciences

- CHANGE: Prerequisite for BPS 333 to "Pre: NUR 213 and 234, or RN student status or permission of instructor"

E. Honors Program

CHANGE: Prerequisite for HPR 201, 202 to “Pre: GPA of 3.30 or better and one completed honors course, or permission of the director of the honors program.”

F. Online Courses

The CAC reviewed online versions of the following courses and notified Enrollment Services that they may be scheduled beginning in the Summer 2009:

AAF 300 topic: Black Identity and the Social World (Barber)
COM 415 The Ethics of Persuasion (Roth)
SOC 212 Families in Society (Mederer)

SECTION II

Curricular Matters which Require Confirmation by the Faculty Senate

A. College of Arts and Sciences

1. Department of Mathematics

- a. ADD: **MTH 106 Mathematics of Social Choice and Finance (3)**
Voting methods, apportionment problems, and mathematics of everyday finance. Emphasis is on development of reasoning ability as well as manipulative techniques. Not open to students with credit in MTH 108 or MTH 109 and not for major credit in mathematics.”
- b. CHANGE: Curricular requirements for the B.S. Mathematics degree as follows:
 - 1) The transcript will list two different subprograms under the BS Mathematics degree on the transcript. One should say “General Program” and the other should say “Applied Program.”
 - 2) Both B.S. programs require 120 credits for graduation.
 - 3) Add the following revised statement: “Credits earned in MTH 107, 108, 109, 110, 111, 208, 362, or 420 cannot be applied toward this degree.”
 - 3) Delete the following courses from the description of the degree: “MTH 444, 461, BIO 460; and PHY 341.”

2. Department of Music

- a. CHANGE: The Bachelor of Music degree as follows:
 - 1) Combine the three degrees, Bachelor of Music in Music Composition, Bachelor of Music in Music Education, and Bachelor of Music in Music Performance into one degree, Bachelor of Music, with three options:

“music composition,” “music education” and “music performance”.

- 2) Reduce the minimum credits required for the music composition option to 124 by reducing the electives from nine to six.
 - 3) Reduce the minimum credits required for the music education option from 131 to 128. by removing electives from the option.
 - 4) Reduce the minimum credits required for the music performance option to 124 by reducing the electives from nine to six.
 - 5) Correct credits for MUS 235 to “2”
 - 6) Add MUS 341 to the professional education section of the music education option.
 - 7) Add the jazz studies sub-option to the music performance option.
 - 8) Change the text in the Catalog to conform with the Department of Music’s *URI Music Handbook for Undergraduate Students* to meet accreditation requirements of the National Association of Schools of Music.
- b. CHANGE: the Bachelor of Arts degree as follows:
- 1) Specify that there are three options within the B.A Degree: “jazz studies”, “music,” and “music history and literature.”
 - 2) Reduce the minimum credits required for the jazz studies and music history and literature options by reducing electives from 45 to 38, of which a minimum of 30 must be in non-music courses.
 - 3) Change the text in the Catalog to conform with the Department of Music’s *URI Music Handbook for Undergraduate Students* to meet accreditation requirements of the National Association of Schools of Music.

3. Department of Political Science

CHANGE: Credits for PSC 350 to “4” and description to “Provides essential political and historical background to understanding the evolution of U.S. and Soviet/Russian relations over the past 60 years. (Lec. 4)

B. College of Engineering

1. Department of Electrical., Computer and Biomedical Engineering

a. ADD: The following new courses:

- 1) **BME 360 Biomeasurement (3)**
Principles of biomeasurement, patient safety, embedded system design with microcontrollers, programming with assembly and C++ languages, interrupts, timer, real-time digital filters, electrocardiogram (ECG)

instrumentation, QRS detection, heart rate meter. (Lec. 3) Pre: ELE212.
Concurrent enrollment in 361 required.

2) **BME 361 Biomeasurement Laboratory (1)**

Constructing and experimenting with embedded systems using microcontrollers, implementing real-time digital filters with assembly and C++ languages, constructing an electrocardiogram (ECG) amplifier, implementing QRS detection and heart rate meter. Concurrent enrollment in 360 required.

b. CHANGE: Curriculum for BS degree in Electrical Engineering as follows:

- 1) Delete requirement of a technical elective.
- 2) Change description to reflect additions, deletions and new course titles

c. CHANGE: Curriculum for BS in Biomedical Engineering to reflect course additions, deletions and course modifications:

- 1). Add four new courses (BME 461, BME 468, BME 484, and BME 485)
- 2) Change five existing courses (BME 181, BME 281, BME 360, BME 361, BME 462)
- 3) Reduce required credits to "128."

d. CHANGE: Curriculum for the BS degree in Computer Engineering as follows:

- 1) Replace CSC 412 with a computer engineering elective and increase the number of computer engineering electives to 3.
- 2) Add the following courses to the list of computer engineering electives: CSC 412 and BME 461 (or ELE 461)
- 3) Remove BME 463 from the list of computer engineering electives.

2. Department of Industrial and Systems Engineering

CHANGE: Curriculum for the BS in Industrial Engineering as follows:

- 1) Eliminate 2 technical requirements (basic science elective and ISE 449) and add MCE 201
- 2) Reflect the reduction in credits for ISE 220.
- 3) Reduce the total number of credits required for the degree to 125.
- 4) Rearrange courses in the sophomore and junior years to align the ISE curriculum more closely with the MCE Curriculum.

3. Department of Industrial and Systems Engineering and Department of Mechanical Engineering and Applied Mechanics

*MERGE: The two departments into a single Department of Mechanical, Industrial and Systems Engineering.

C. College of the Environment and Life Sciences

1. Department of Biological Sciences

CHANGE: Credits for BIO 321 to “4” and method of instruction to “(Lec. 3, Lab 3)”

2. Department of Cell and Molecular Biology

CHANGE: Credits for MTC 195 to “5” and method of instruction to “(Lec. 3, Lab 4)”

3. Department of Plant Sciences

CHANGE: Credits to “4” and method of instruction to (Lec. 3, Lab 3)” for the following courses:

- 1) PLS 301
- 2) PLS 306
- 3) PLS 331

D. College of Human Science and Services

1. School of Education

- a. CHANGE: Admission requirements (URI Catalog 2008-09, page 106, Admissions Requirements, paragraph 2, and URI Catalog 2008-09, page 41, third column first paragraph to read as follows:

4) the student’s academic record, including a cumulative grade point average of 2.50 or better. In addition, for the Secondary Education and Music Education programs a grade point average of 2.50 in the Arts and Science major or specialization

- b. CHANGE: Basic skills testing option (URI Catalog 2008-09, page 159, second column first full paragraph) to read as follows:

Passing the PPST is required as part of the application process (Reading 172, Writing 171, Math 171), or a score of 1,100 on the SAT (Mathematics and Critical Reading only), or a score of 1000 on the GRE. Please contact the appropriate department(s) in the following list for additional information relative to this requirement.

*May require action by the Rhode Island Board of Governors for Higher Education.

2. Department of Kinesiology

CHANGE: Credits required for the following specializations to “120”:

- 1) Early Contingent Admission to URI Physical Therapy Program
- 2) Exercise Science
- 3) General
- 4) Health Fitness

3. Department of Textiles, Fashion Merchandising and Design

CHANGE: Requirements for the B.S. degree in TMD as follows:

- 1) Delete the HDF 225 from the list of required courses
- 2) Reduce the total number of credits required to “120.”

E. Honors Program:

1. CHANGE: Credits, title, description and prerequisite for the following courses:

HPR 301, 302 Honors Tutorial Topic: Administrative Internship (1-4 each)

Experiential course that provides an opportunity for students to learn and practice administrative decision-making and to develop research skills in an administrative setting. Placements include Brown Medical School, the Institute for International Sport, RI Planned Parenthood, and the URI Honors program. (Practicum) 302: a continuation of 301. Pre: permission of the director of the honors program.

2. CHANGE: Requirements for the Honors Program to read as follows:

Students may take honors work if they meet the following standards: freshmen must have graduated in the upper 10 percent of their high school class. Students from schools that do not rank should submit a copy of their high school transcript and a recommendation from a faculty member to the Honors Program; the Honors Director will determine eligibility based on these materials. Transfer students must have received a GPA of 3.30 or better at their previous institution to be eligible for honors courses. Sophomores, juniors, and seniors must have earned at least a 3.30 cumulative grade point average.

Program. To achieve this certification a student must complete a minimum of 15 honors course credits that meet the following requirements: 1) three credits of Honors Seminar at the 100 or 200 level; 2) three credits Honors Colloquium (HPR 201 or 202); 3) three credits of Honors Tutorial at the 300 or 400 level; 4) six credits at the 400 level, which may be either six credits of Senior Honors Project (HPR 401,402) or three credits of the Senior Honors Project (HPR 401) and three credits of the Senior Honors Seminar (HPR 411/412, or other approved Senior Seminar); and 5) a 3.30 grade point average for honors courses and a 3.30 cumulative grade point average

SECTION III

Joint Report of the Curricular Affairs Committee and Graduate Council on 400-Level Courses

At the February 23, March 30 and April 20, 2009 meetings of the Curricular Affairs
And the March 30 and April 20, 2009 meetings of the Graduate Council, the following
matters were considered and are now presented to the Faculty Senate.

A. Informational Matters

1. College of Arts and Sciences

a. Department of Mathematics

- 1) CHANGE: Number of MTH 445 to "MTH 455 (445)" and prerequisite to "Pre: 142 and 215, and junior standing."
- 2) CHANGE: Title for MTH 471 to "Introduction to Numerical Analysis," description to "Computer arithmetic, interpolation, numerical approximation of derivatives, integral numerical ODE, and other topics." And prerequisite to "Pre: 243 or permission of instructor."
- 3) CHANGE: Title for MTH 472 to "Numerical Linear Algebra," description and prerequisite to "Systems of linear equations, least squares, approximation, eigenvalue problems. Pre: 243 and 215, or permission of instructor. Offered in fall semesters of even-numbered years."

b. Department of Music

****CHANGE:** Title for MUS 421 to "Aesthetics of Electro-Acoustic Music Composition" and description to: "Study and application of electronic music composition, and exploration of aesthetic goals since 1945 through analysis of compositional and technological procedures, culminating in a major composition electro-acoustic project."

c. Department of Sociology and Anthropology

CHANGE: Prerequisite for SOC 420 to "Pre: 301."

d. Departments of Sociology & Anthropology and Political Science

CHANGE: Prerequisite for SOC 476 (or PSC 476) to "Pre: 274 (or PSC 274) and 301 and permission of instructor."

****No action by the Graduate Council. Not for graduate credit.**

2. College of Engineering

a. Departments of Chemical Engineering and Mechanical Engineering & Applied Mechanics

****ADD: CHE 474X (or MCE 474X) Thermal-Hydraulics (3)**

Heat transfer and fluid dynamics of nuclear reactor power plants. Analysis of steam supply, two-phase flow, steam separation, boiling, flow instabilities, critical conditions, channel transient analysis, natural and forced circulation and sub-channels. (Lec. 3) Pre: MTH 244 or CHE 313 or MCE 341, or permission of instructor. Not for graduate credit. (*Effective May 12, 2009*)

b. Department of Industrial and Systems Engineering

- 1) CHANGE: Description for ISE 411 to “Introduction to probability and statistics in engineering applications including data analysis, probability theory, probability distributions, sampling distributions, statistical inference, hypotheses testing, confidence intervals, analysis of variance, and receiver operating characteristics.”
- 2) CHANGE” Title for ISE 412: to “Statistical Methods and Quality Systems,” description to “Study of statistical methods and quality systems in engineering applications including statistical methods, quality improvement tools, control charts, process capability, linear regression, design of experiments, and acceptance sampling,” and prerequisite to “411 or STA 409 or MTH 451 or permission of instructor.”

3. College of the Environment and Life Sciences

Department of Fisheries, Animal and Veterinary Sciences

CHANGE: Title for ASF 486 to “Fish Physiology,” description to “Study of how fish function in the changing aquatic environment from the molecular to the organismal level. The major organ systems, regulation of physiological and biochemical functions, and interactions will be explored” and prerequisite to “Pre: BIO 201 or 242, or AVS 331, or permission of Instructor.”

4. College of Human Science and Services

Department of Textiles, Fashion Merchandising, and Design

CHANGE: Prerequisite for TMD 402 to Pre: TM or TMD majors admitted to the College of Human Science and Services with junior or senior standing, or permission of instructor

****No action by the Graduate Council. Not for graduate credit.**

5. College of Pharmacy

**Department of Pharmacy Practice

- 1) CHANGE: Title for PHP 450 to “Introductory Pharmacy Practice Experience I” and prerequisite to “Pre: first year Doctor of Pharmacy professional student or Permission of instructor.”
- 2) CHANGE: Title for PHP 451 to “Introductory Pharmacy Practice Experience II”

B. Curricular matters which require confirmation of the Faculty Senate

1. College of Arts and Sciences

**a. Department of Journalism

ADD: **JOR 411 Senior Portfolio (1)**

Structured opportunity to select, review and reflect on examples of work for a portfolio. Formal presentations of portfolio to faculty required. (Portfolio) Pre: journalism major and senior standing and concurrent enrollment in 410. Not for graduate credit.

**b Department of Psychology

ADD: **PSY 477 Preparation for Careers in Psychology (1)**

Designed to assist students as they explore career options in the field of psychology. Students will prepare materials for job/graduate school applications, and practice interview skills. (Lec. 1) Pre: sophomore standing or above. Not for graduate credit

2. College of Engineering

**a. Department of Electrical, Computer and Biomedical Engineering

ADD: The following new courses:

- a) **BME 461 (or ELE 461) Physiological Modeling and Control (3)**
Principals of physiological modeling and control of linear and nonlinear systems, stability analysis, root locus, Bode plots, linearization. (Lec. 3) Pre: ELE 314. Not for graduate credit.
- b) **BME 468 Neural Engineering (3)**
Principles and technologies of neuroengineering and clinical applications; brain stimulator, spinal cord stimulation, functional electrical stimulation (FES), neural-machine interface for motor prosthesis control, artificial visual/auditory devices for augmented sensory perception. (Lec. 3) Pre: 360. Not for graduate credit.

** No action by the Graduate Council. Not for graduate credit.

- c) **BME 484 Biomedical Engineering Capstone Design I (2)**
Applications of engineering skills; team projects in biomedical areas such as neuroengineering, assistive technology, cardiopulmonary measurements, medical imaging, and modeling of physiological systems. First of a two-course sequence. (Lec. 1, Lab 3) Pre: (207 and 360) or permission of instructor. Not for graduate credit.
- d) **BME 485 Biomedical Engineering Capstone Design II (2)**
Applications of engineering skills; team projects in biomedical areas such as neuroengineering, assistive technology, cardiopulmonary measurements, medical imaging, and modeling of physiological systems. (Lec. 1, Lab 3) Second of a two-course sequence. Pre: 484 or permission of instructor. Pre: 484 or permission of instructor. Not for graduate credit.

**b. Department of Mechanical Engineering and Applied Mechanics

ADD: **MCE 472 Power Plant System Design and Safety Analysis (3)**
Energy production, power systems, energy conversion system design, safety engineering and design, phenomenological Modeling and analysis, probabilistic risk assessment, risk-informed design, advanced power plant systems design. (Lec. 3) Pre: Thermodynamics (MCE 341 or CHE 313) or permission of instructor.

3. College of the Environment and Life Sciences

**a. Department of Biological Sciences

- 1) CHANGE: Level and number for BIO 465: to "BIO 365 (465)."
- 2) ADD: The following new courses:
 - a) **BIO 412 Evolution and Diversity of Fishes (4)**
Origin, evolution and diversification of fishes, their phylogenetic relationships, and morphological, physiological, ecological and behavioral adaptations in marine and freshwater habitats. (Lec. 3, Lab. 3) Pre 101 or 102 and 366 or permission of instructor. Not for graduate credit.
 - b) **BIO 480 Community Ecology (3)**
Exploration of community ecology, with an emphasis on interspecific interactions (competition, predation, mutualism), species diversity, succession, niche theory, and island biogeography. Format includes lecture, case studies, and discussion. (Lec. 3) Pre: 262 or permission of instructor. Not for Graduate credit.

**No action by the Graduate Council. Not for graduate credit.

b. Department of Nutrition and Food Sciences

ADD: **NFS 440 Macronutrient Metabolism (3)**

Chemistry and metabolism of carbohydrate, protein, and fat. Advanced study of the impact of macronutrients on human metabolism, health, and disease. Pre: 207, BIO 242, BCH 311, or permission of instructor.

4. College of Human Science and Services

School of Education

1) CHANGE: Credits for EDC 452 to "2."

**2) ADD: the following new courses:

a) **EDC 422 Technology Applications in Education and Training (3)**

Introduction to the use of microcomputers in pre-K through adult education settings. Current use and techniques will be explored for evaluating hardware and software, implementation issues, and future developments. (Lec. 3) Pre: senior standing. Not for graduate credit

b) **EDC 425 Web Site Technology In Education & Training (3)**

Focus on designing web-based curriculum. Topics include incorporating multimedia technologies into a web site, appropriate androgogical and pedagogical strategies, and web site design and development. (Lec. 3) Pre: senior standing or permission of instructor. Not for graduate credit.

5. College of Pharmacy

a. Department of Biomedical and Pharmaceutical Sciences

ADD: The following new courses:

a) **BPS 442 Pharmacogenetics and Pharmacogenomics (3)**

Principles of how genetic and genomic factors contribute to individual variation in drug response and how these principles can be used to produce effective and safe drugs. (Lec. 3) Pre: BCH 311, BPS 321.

b) **BPS 443 Formulation and Manufacturing Laboratory (2)**

Provides general principles and hands-on experience in the preformulation, formulation, manufacturing, and quality control fields that are necessary in design, formulation, compounding and manufacturing of drug dosage forms. (Lab. 4) Pre: 301 or 303 or 305.

**No action by the Graduate Council. Not for graduate credit.

c) **BPS 451 Techniques in Medicinal Chemistry and Molecular Biology (4)**

Provides students with an understanding of medicinal chemistry, molecular biology, and drug analysis techniques commonly used in pharmaceutical industry. The course combines laboratory exercises with easy-to-understand lectures. (Lec. 3, Lab 4) Pre: BCH 311, BPS 313, BPS 321.

**b. Department of Pharmacy Practice and Department of Biomedical and Pharmaceutical Sciences

CHANGE: Title, credits, description and prerequisite for PHP 410 (or BPS 410) to read as follows:

PHP 410 (or BPS 410) Foundations for Human Disease V: GI, Endocrine (2)

The etiology, pathogenesis, symptomatology, and diagnosis of endocrine and gastrointestinal diseases. (Lec. 3) Pre: P3 standing in the Doctor of Pharmacy program.

**No action by the Graduate Council. Not for graduate credit.