

## UNIVERSITY OF RHODE ISLAND FACULTY SENATE

May 5, 2016

### Faculty Senate Curricular Affairs Committee Five Hundred and Thirty-Third Report

At the April 25, 2016 meeting of the Curricular Affairs Committee and by electronic communication, the following matters were considered and are now presented to the Faculty Senate.

#### SECTION I Informational Matters

#### TEMPORARY COURSES

##### A. COLLEGE OF ARTS & SCIENCES:

###### **MTH 100X, Introductory and Intermediate Algebra (4 crs.)**

Provides an introduction to algebraic manipulation, and solving equations and inequalities in one variable. Also covered are plotting points and graphing elementary functions, interpreting and expressing mathematics. It is intended for STEM majors who are not prepared to take MTH101. This course does not satisfy the general education math class requirement. (Lec. 3, Lab. 1)

###### **MTH 103X, Applied Precalculus (3 crs.)**

Linear, quadratic, power, exponential, logarithmic and periodic functions – their graphs and properties. Emphasis on interpretation and real-life applications and examples. Modeling using these functions. (Lec. 3)

##### B. COLLEGE OF BUSINESS:

###### **BUS 410X, Lean Six Sigma Green Belt Practicum (3 crs.)**

Covers the required concepts and project to complete the Six Sigma Green Belt certification. (Lec. 3) Pre: BUS 359 including completion of Yellow Belt designation. Not for graduate credit.

#### COURSE CHANGES:

##### A. COLLEGE OF ARTS AND SCIENCES:

###### **a. Add/change prerequisite:**

###### **ITL 100, Accelerated Elementary Italian (6 crs.)**

Equivalent to ITL 101 and 102. Develops basic communication skills in Italian. Explores the products, practices, and perspectives of Italian culture. (Lec. 6) Pre: Freshman or sophomore status only. (C2) (A3)

###### **PRS 320, Strategic Media Relations, 3 crs.**

Explore media relations strategies/tactics (crafting releases, pitching to the media, use of social/traditional media, e.g. twitter) to inform/persuade publics about issues. (Lec. 3) Pre: Students admitted to PR Major and WRT 331.

###### **b. Method of instruction:**

###### **ECN 445, Senior Research Seminar (3 crs.)**

Collaborative group research on topic(s) selected by instructor. Written report and/or oral presentation required. (Seminar) Pre: For economics majors only. Must have completed 90 credits and ECN 201, 202, 305, 306 or 376, 324 or 327, 323 or 328, or permission of instructor. Not for graduate credit.

**c. Adding Cross-listing to the following courses:**

JOR/PRS 341, Editing for Publication (3 crs.)

WRT/PRS 331, Writing Public Relations (3 crs.)

SOC/CCJ 230, Crime and Delinquency (3 cr.) \*

SOC/CCJ/PSC 247, Criminal Justice System (3 crs.) \*

SOC/CCJPSC 247H, Honors Section SOC/PSC 274: Criminal Justice System (3 crs.) \*

SOC/CCJ/PSC 476, Policy Issues in Criminal Justice (3 crs.) \*

\* contingent upon approval of Criminology and Criminal Justice BA program (see appendix B).

**B. COLLEGE OF ENGINEERING:**

**a. Change description:**

**BME 281, Biomedical Engineering Seminar II (1 cr.)**

Seminar series given by instructor, invited experts, and students with focus on physiological system modeling, biomechanics, biomaterials, tissue engineering, artificial organs, biosensors; Assignments involving design and 3D printing. (Seminar) Pre: BME 181 or permission of instructor.

**ONLINE COURSES**

The CAC has approved the following courses for online offering:

**CHN 101, Beginning Chinese I (3 crs.)**

**CHN 102, Beginning Chinese II (3 crs.)**

**CMD 375, Language Development (3 crs.)**

**CMD 465, Clinical Methods in Communicative Disorders (4 crs.)**

**CVE 220, Mechanics of Materials (3 crs.)**

**ECN 327, Intermediate Economic Theory: Income and Employment (3 crs.)**

**ECN 338, International Economics (3 crs.)**

**MCE 263, Dynamics (3 crs.)**

**MCE 301, Application of Mechanics in Design (3 crs.)**

**MCE 466, Introduction to Finite Element Method (3 crs.)**

**MTH 107, Introduction to Finite Mathematics (3 crs.)**

**PSY 324, Latina/o Psychology (3 crs.)**

**SPA 101, Beginning Spanish I (3 crs.) – Accelerated Online Programs**

**TMD 126, Introduction to Design (3 crs.)**

**SECTION II**

**Curricular Matters Which Require Confirmation by the  
Faculty Senate**

**NEW COURSES**

**A. COLLEGE OF ARTS AND SCIENCES:**

**SOC 460, Quantitative Methods of Sociology (3 crs.)**

Introduces students to the basic of quantitative methods in sociology – techniques that sociologists and other social scientists use to summarize quantitative data obtained from empirical research. (Seminar) Pre: sociology major; 9 credits in Sociology.

**STA 460, Introduction to Time Series Analysis (4 crs.)**

Modeling, estimation, inference, and forecasting methods are illustrated with applications from different fields. (Lec. 3, Lab. 1) Pre: STA 307 or STA 308, or equivalent, or permission of instructor.

**B. COLLEGE OF THE ENVIRONMENT AND LIFE SCIENCES:**

**AFS 106, Food from the Sea Laboratory (1 cr.)**

Laboratory on capture fisheries and aquaculture and their contribution to food supply, methods of production, environmental and ecological considerations, practices employed, processing, and marketing, with a regional New England focus. (Lab. 3) Pre: concurrent enrollment with AFS 105.

**CMB 421, Physical Biochemistry (3 crs.)**

Focuses on life science application of physical chemistry covering: Bioenergetics, Thermodynamics, Equilibrium, Kinetics, Quantum Theory, and Photochemistry (Lec. 3). Pre: CHM124, MTH111, PHY111 or graduate standing: not for undergraduate chemistry program credit.

**NRS/BIO 419, Field Experience in Herpetology (1 cr.)**

Capstone field trip in herpetology to region with higher amphibian and reptile diversity, such as Appalachia, to hone skills in identification, broaden understanding of ecology, and apply field research methods. (Practicum) Pre: Concurrent enrollment in or previous completion of NRS/BIO 417 and permission of instructor. Not for graduate credit.

## COURSE CHANGES

**A. COLLEGE OF ARTS AND SCIENCES:****a. Change course number:****SOC 440, Sociological Research Methods (3 crs.)**

Scientific method in sociological research; emphasis on the development of the ability to construct and evaluate data-based arguments; topics include the nature of evidence, research design, principles and techniques of sampling, data collection and interpretation. (Lec. 3) Pre: 9 credits in SOC. Open only to SOC majors with junior or senior standing, or permission of instructor. Not for graduate credit.

**SOC 395, History of Sociological Thought (3 crs.)**

Examination of the basic questions and issues that have been the focus of sociological thought; critical analysis of theoretical sociology with an emphasis on the contributions of sociological theory to understanding the structures and problems of modern society. (Lec. 3) Pre: SOC 100 and 6 credits in sociology. Open only to sociology majors.

**b. Change title and description:****MTH 099, Basic Algebra (3 crs.)**

Review of basic algebra: operations of real numbers and algebraic expressions, linear equations and systems of linear equations, linear inequalities and systems of linear inequalities, introduction to polynomials and polynomials operations. (Lec. 3) Credits may not be used toward the minimum credits required for graduation or for General Education. S/U only.

**MTH 362, Advanced Engineering Mathematics (3 crs.)**

Algebra of complex numbers, matrices, determinants, quadratic forms. Linear differential equations with constant coefficients. (Lec. 3) Pre: MTH 142. Not for major credit in mathematics.

**c. Change title and prerequisite:****MTH 101, Intermediate Algebra (3 crs.)**

Introduction to algebraic manipulation, solving equations and Inequalities in one variable. Plotting points and graphing elementary functions. Interpreting and expressing mathematics. Intended for STEM majors who are not prepared to take MTH 111. (Lec. 3) Pre: S in MTH 099. Not for credit for mathematics majors, not for general education credit, and not open to students with a C- or better in MTH 131 or MTH 141.

**d. Change description and prerequisites:****MTH 108, Topics in Mathematics (3 crs.)**

Introduces students to the spirit of mathematics and its applications. Emphasis is on development of reasoning ability as well as manipulative techniques. (Lec. 3/Online) Pre: Not open to students with credit in MTH 106 or MTH 109 and not for major credit in mathematics. (A1) (B3)

**e. Change credits and method of instruction:****AST 108, Introductory Astronomy: Stars and Galaxies (4 crs.)**

Celestial sphere, constellations. Constitution of sun, stars, nebulae, and galaxies. Planetarium used freely for lectures and demonstrations. (Lec. 3, Lab. 1)

**AST 118, Introductory Astronomy: The Solar System (4 crs.)**

Celestial sphere, Earth, formation of and motions and characteristics of objects in solar system, the Sun, exoplanets, and search for extraterrestrial life. Planetarium used for lectures and demonstrations. (Lec. 3, Lab. 1)

**f. Change description and method of instruction:**

**ENG/CLS 160, Literatures of the World (4 crs.)**

(4 crs.) Cross-listed as (ENG), CLS 160. Introduction to significant works of world literature. Not available for English major credit. (Lec. 2, Recitation 1, Online 1)

**g. Change title, description, and method of instruction:**

**MTH 141, Calculus I (4 crs.)**

Topics in functions and their graphs, limits, the derivative, applications to finding rates of change and extrema and to graphing, the integral, and applications. (Lec. 4) Pre: passing a placement test or C- or better in MTH 111. Not open to students with credit in MTH 131 or concurrent enrollment in MTH 131.

**MTH 142, Calculus II (4 crs.)**

Continues the study of calculus for the elementary algebraic and transcendental functions of one variable. Topics include the techniques of integration, improper integrals, application in physics, and calculus using polar coordinates. (Lec. 4) Pre: C- or better in MTH 141 or permission of chairperson. Not open to students with credit or concurrent enrollment in 132.

**B. COLLEGE OF ENGINEERING:**

**a. Change course number:**

**ISE 311, Probability and Statistics for Engineers (3 crs.)**

Cross-listed as (ISE), MCE 411. 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. (Lec. 3) Pre: MTH 142 or permission of instructor.

**ISE 332, Operations Research: Deterministic Systems (3 crs.)**

Introduction to major areas of operations research and their application to systems analysis. Linear programming, transportation and transshipment models, elementary network analysis, integer programming, and related topics. (Lec. 3) Pre: MTH 362 or 215 or permission of instructor.

**b. Change description:**

**ISE 325, Computer Tools for Engineers (3 crs.)**

The study and application of engineering tools for computing and information technology. This course will provide students with the principles and applications of tools for data science and an introduction to computational methods. (Lec. 2, Lab. 3) Pre: MTH 141.

**c. Change course number and prerequisite:**

**CHE 451, Plant Design and Economics I (3 crs.)**

Elements of plant and process design integrating the principles learned in previous courses. Emphasis is on optimum economic design and the writing of reports. (Lec. 1, Lab. 6) Pre: CHE 314 and CHE 348 and co-requisite of CHE 349, or permission of instructor. Not for graduate credit.

**CHE 452, Plant Design and Economics II (3 crs.)**

Elements of plant and process design integrating the principles learned in previous courses. Emphasis is on optimum economic design and the writing of reports. (Lec. 1, Lab. 6) Pre: CHE 349 and 451, and credit for or concurrent enrollment in CHE 364 or permission of instructor. Not for graduate credit.

**ISE 312, Statistical Methods and Quality Systems (3 crs.)**

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. (Lec. 3) Pre: ISE 311 or STA 409 or MTH 451 or permission of instructor.

**ISE 333, Operations Research: Stochastic Systems (3 crs.)**

Markov chains, dynamic programming, queuing theory, simulation, forecasting, game theory, simple stochastic models, and their relation to selected problems. (Lec. 3) Pre: ISE 311 and MTH 362 or MTH 244 or permission of instructor.

**d. Change course number and description:**

**ISE 304, Engineering Economy and Project Planning (3 crs.)**

Effects of economics on engineering decisions in design, selection, and product or project proposals, project planning, resource allocation and scheduling using computer based tools. (Lec. 3)

**e. Change course number, credits, and description:**

**CHE 449, Transfer Operations III (3 crs.)**

Theory, design and application of separation processes with a focus on equilibrium stage operations. Integrated processes and new technologies will be examined. (Lec. 3) Pre: CHE 348 or permission of instructor.

**C. COLLEGE OF HUMAN SCIENCE AND SERVICES:**

**a. Change prerequisite:**

**HLT 450, Advanced Interdisciplinary Health Studies (4 crs.)**

Capstone course required for all majors. Subject and content will vary from semester to semester. Student will research and offer solutions to a problem in health studies using interdisciplinary approaches. (Seminar) Pre: PSY 200 or STA 307; HLT 200 with a C or higher; junior or senior standing in health studies or permission of instructor. Not for graduate credit.

**b. Change prerequisites and method of instruction:**

**EDC 312, Psychology of Learning (3 crs.)**

An analysis of learning with emphasis on principles and procedures applicable to any human teaching and learning situation. (Lec. 3/Online) (A2) (B4)

**c. Change title, description and prerequisites:**

**HLT 200, Interdisciplinary Approaches to Health (4 crs.)**

Foundational and intermediate concepts, theories, and research in interdisciplinary perspectives on health. Includes applications to real world health-related problems. Emphasis on developing key knowledge and skills bases for the major. (Lec. 4) Pre: Completion of HLT 100 and sophomore standing.

**D. UNIVERSITY COLLEGE FOR ACADEMIC SUCCESS:**

**a. Change course code, and course number:**

**UCS 312, Community Services at URI (1-4 crs.) [Previously CSV 302]**

Learning through a community service project that addresses a specific community need at the University. Project proposed and supervised by an instructor, and varies each semester. Includes mandatory seminar. (Practicum) Service learning. Pre: junior standing or above, or permission of instructor. May be repeated for a maximum of 9 credits.

**b. Change course code, course number, title, and description:**

**UCS 312H, Honors Section of UCS 312: Community Service at URI (1-4 crs.) [Previously CSV 302H]**

Honors Section of UCS 312: Community Service at URI. (Prac. 3) Pre: Must have a 3.30 overall GPA.

**c. Change course code, course number, description and prerequisite:**

**UCS 380, Field Experience II (3-12 crs.) [Previously ITR 302]**

Field experience gained at placement site through participation in the UCAS internship program. The experience will be defined by a job description and learning contract arranged by the director of the Center for Career and Experiential Education between the student intern, the intern's faculty advisor, and the relevant agency supervisor. (Practicum) Pre: junior or senior standing, a minimum quality point average of 2.50, participation in the UCAS Internship program, and permission of faculty advisor. May be repeated for a maximum of 24 credits. S/U credit.

**UCS 381, Colloquium II (3 crs.) [Previously ITR 304]**

Seminar format. Discussions of issues and problems raised by internship experiences. (Seminar/Online) Pre: concurrent enrollment in 380 for 381. Required for and open only to students enrolled in the UCAS Internship program.

**UCS 382, Field Experience I (3-12 crs.) [Previously ITR 301]**

Field experience gained at placement site through participation in the UCAS Internship program. The experience will be defined by a job description and learning contract arranged by the director of the Center for Career and Experiential Education between the student intern, the intern's faculty advisor, and the relevant agency supervisor. (Practicum) Pre: junior or senior standing, a minimum quality point average of 2.50, participation in the UCAS Internship program, and permission of faculty advisor. May be repeated for a maximum of 24 credits. S/U credit.

**UCS 383, Colloquium I (3 crs.) [Previously ITR 303]**

Seminar format. Discussions of issues and problems raised by internship experiences. (Seminar) Pre: concurrent enrollment in 382 for 383. Required for and open only to students enrolled in the UCAS Internship program.

## **CURRICULAR CHANGES**

### **A. COLLEGE OF ARTS AND SCIENCES:**

#### **1) Changes to the BA Music program: (see Appendix A)**

The Music Department requests the changes to the catalog copy for the Music BA program and the addition of a statement to Minors in Music sections. This language change will allow for consistent and concise language in regard to the audition requirements for the BA and BOM programs.

#### **2) Creation of a new Interdisciplinary Program in Criminology and Criminal Justice (CCJ): (see Appendix B)**

This new Interdisciplinary Program in Criminology and Criminal Justice would be staffed by members of Sociology & Anthropology, Political Science, Psychology, Gender & Women's Studies, and Economics (as well as new CCJ faculty). The proposed BA Degree in Criminology and Criminal Justice would require 30-34 credits (maximum of 45-49 credits) from the following categories (Foundation courses would not be included in the 30-34 credits required for the major). All courses are 3 credits, unless otherwise indicated. Courses marked with an asterisk have one or more prerequisites.

##### **Foundation Courses**

Prerequisites to most required core or elective courses. Not for credit in major but strongly recommended as General Education and/or free electives.

ECN 201 - Principles of Economics: Microeconomics  
GWS 150 - Introduction to Gender & Women Studies  
PSC 113 - Introduction to American Politics  
PHL 212 - Ethics  
PSY 113 - General Psychology  
SOC 100 - General Sociology

##### **Core Courses (9 credits)**

These courses are required of all majors. A new CCJ course code will be created to house the core courses for this major. Courses marked with an asterisk have one or more prerequisites.

CCJ/SOC 230 – Crime and Delinquency  
CCJ/SOC/PSC 274(H) – The Criminal Justice System  
CCJ/SOC/PSC 476 – Policy Issues in Criminal Justice \*

##### **Research Methods (3-4 credits)**

One course selected from the following. If students are double majors with ECN, PSC, PSY, or SOC, this course will be accepted for the CCJ major, but the credits will need to be made up in another category.

ECN 306 - Introduction to Research \*  
PSC 310 - Introduction to Research (4)  
PSY 200 - Quantitative Methods (4)\*  
SOC 301 - Methods of Research \*

##### **Major Electives (18-21 credits)**

At least one course must be taken from each elective group (6-7 credits). The remaining credits may be taken from one or both lists of electives, depending on the focus of the student (12-14 credits). No more than four courses can be taken in each elective area.

##### **Criminology Electives**

GWS 365 - Sexual Violence  
GWS 370 - Sex Trafficking  
GWS 401 - Human Trafficking and Contemporary Slavery  
PSY 254 - Behavior Problems and Personality Disorders \*  
PSY 466 - Child Sexual Abuse \*  
SOC 300 - Topics in Sociology (when relevant) \*  
SOC 370 - Theories of Crime and Delinquency \*  
SOC 403 - Gender, Crime and Justice \*  
SOC 410 - Race, Crime and Justice \*  
SOC 420 - Family Violence \*  
SOC 450 - White Collar Crime \*

### **Criminal Justice Electives**

CHM 391 - Forensic Science Overview (1-3)  
CHM 392 - Introduction to Criminalistics  
PSC 371 - The Constitution and the Supreme Court (4)  
PSC 388 - The American Legal System (4)\*  
PSC 472 - Civil Liberties (4)\*  
PSY 465 - Introduction to Crisis Intervention \*  
SOC 300 - Topics in Sociology (when relevant) \*  
SOC 330 - Police in Democratic Societies \*  
SOC 331 - Punishment and Corrections \*  
SOC 332 - Juvenile Justice \*  
SOC 403 - Gender, Crime and Justice \*  
SOC 410 - Race, Crime and Justice \*

When appropriate, and by permission of the Program Director, students may substitute Internship credit (SOC 497, PSC 375/376, PSY 305, or GWS 300) or Independent Study credit (SOC 498/499, PSC 455/456, PSY 489, or GWS 450) for one of their elective courses listed above. No more than 3 credits may be used toward the major from Internship or Independent Study.

### **3) Creation of a new Criminology and Criminal Justice (CCJ) major: (see Appendix C)**

As part of the proposal for the new program in Criminology and Criminal Justice, we ask that a named major be created so that this may be listed on a student's diploma, upon their completion of the program requirements.

### **4) Creation of a new Criminology and Criminal Justice (CCJ) course code: (see Appendix D)**

As part of the proposal for the new program in Criminology and Criminal Justice, we ask that the CCJ course code be created. The proposal portfolio includes the email from Jack Humphrey indicating that the course code is available as well as requests to add this course code to 3 existing courses that will serve as the core courses for the program.

### **5) Changes to Bachelor of Arts degree in Sociology: (see Appendix E)**

Changes:

- adding a statistics requirement to the major
- changing the major requirement from two (2) to one (1) inequality course
- deleting courses that no longer are taught
- changing course numbering and level: SOC 301 becomes 440; SOC 401 becomes SOC 395

**Add a quantitative methods requirement to the Sociology B.A. degree curriculum.** This requirement can be fulfilled by taking a new course, SOC 460: Quantitative Methods in Sociology, or taking a similar course in another department. Possible options are STA 220, STA 308, STA 409, PSY 200 (Psychology double majors only), or PSC 310 (Political Science double majors only).

Currently students are required to take 1 methods course - SOC 301: Sociological Research, which is an overview of research methods used by social scientists. The purpose of adding a quantitative methods requirement is that statistics and data analysis skills are tangible and marketable skills that students can acquire when earning a sociology degree. Research skills are an important component of sociology as a 21st century major, and requiring two methods courses gives further opportunities to develop analytical skills that prepare them for meaningful careers and graduate studies. Greater understanding of statistics makes them better informed consumers of quantitative data (which is increasingly important in our data-driven world), and better prepares them to analyze that data. In addition, adding this course would strengthen our learning outcome: Students can demonstrate the ability to interpret, locate, evaluate, generate and use sociologically relevant data to test hypotheses and draw evidence-based conclusions. Furthermore, adding a statistics course was recommended by our external academic program review, conducted by Dr. Elizabeth J. Clifford of Towson University, in fall 2014.

This would mean that students are required to take 2 methods course for the degree. The first would be the existing course, SOC 301: Sociological Research, and the second would be a quantitative methods course offered through our department (SOC 460) or the statistics department.

**Remove one of the two required social inequality courses to the Sociology B.A. curriculum.** Currently, students must take two designated SOC inequality courses (240, 242, 336, 413, 428, and 452). However, faculty are in agreement that students are able to gain considerable knowledge of social inequalities in a number of sociology courses that are not designated as social inequality courses, such as Introduction to Sociology (SOC 100). Students also learn about social inequalities in their elective courses in Sociology and other departments. Therefore, we propose to require only one social inequality course for the B.A.



**Delete courses that are no longer taught.** This includes: SOC 214, 322, 326, 408, 444, SOC/PSC 505, SOC/EEC/MAF/PSC 595, SOC/PSY 610. (See attached list with rationale)

**Change course numbers and levels.**

We are proposing to change the numbering of two required SOC courses, SOC 301 *Sociological Research Methods*, and SOC 401 *History of Sociological Thought*.

Rationale: In order to understand and practice theoretically-based research methods, students need to have a background in theory before taking methods. We see empirically that students who have taken SOC 401 (Theory) before taking 301 (Methods) tend to do better in 301.

Now, the numbering of methods (301) and theory (401) communicates just the opposite order to students. Changing the levels of these two required courses makes it more clear to students that they should take theory first. We also think that creating entirely new numbers, rather than switching 301 and 401, will eliminate confusion for our current students.

Thus, we are proposing that Theory (presently 401) becomes “395” and Methods (presently 301) becomes “440.”

**6) Changes to course options for Arabic Minor: (see Appendix F)**

We request to add RLS/PSC 221 Islam and Its Civilization as a course students may choose in fulfillment of requirement for the minor in Arabic Language and Culture. This new course is a perfect fit for the minor.

**7) Changes to the Bachelor of Arts in German: (see Appendix G)**

We propose to remove GER 112 from the list of courses that do not count for the major.

Rationale: In addition to the existing GER 101 – 104 sequence (3 credit courses), we recently introduced a sequence of 4 credit, intensive-track courses, GER 111, 112, 113, 114). The four-credit courses progress at a faster pace. Under existing rules, after three semesters a student in the intensive-track would have completed 12 credits, but 8 of them would not count for the major. Students clearly cover material in GER 112 needed for the major. Also, this change will align the GER 4-credit sequence with the other language in the department, Chinese, which has developed a 4 credit sequence. Counting CHN 112 for the CHN major was approved last year.

**8) Creation of Landscape Architecture Minor: (see Appendix H)**

The Landscape Architecture Department has seen a growing number of students inquire about how to obtain a minor in the discipline. For years the department has offered a minor in Landscape Architecture to students at URI, but it was never listed as a university approved minor. The existing minor has satisfied all of the requirements listed in the course catalog for minor degrees. Students were approved for a minor if they passed 18 credits from a list of required and elective classes from the following course codes CPL, LAR, PLS and ART, all class approved under the LAR curriculum. In recent years the department has moved from CELS to Arts and Sciences and the focus within the profession has changed. As a result, we have revised our minor by removing some classes, deemed less relevant in today’s world, and replaced them with other classes considered more relevant. Some of those classes are offered through departments whose course codes include: BIO, GEO, and NRS. We have updated our description and the minor form that is used for keeping track of progress and student performance. As part of this process, we have received permission from each of the non-LAR departments to include their courses in our minor.

**B. COLLEGE OF ENGINEERING:**

**1) Changes to requirements for Bachelor of Science in Chemical Engineering: (see Appendix I)**

The Chemical Engineering program would like to be consistent with the COE and allow students to take the two courses in “Entrepreneurship”, EGR 325 and 326 as Professional Electives. At present we do not allow electives from the COE under 400 level. This will also move us forward toward leading schools such as Stanford, which promote entrepreneurship in their undergraduate students.

**2) Changes to the BS in Industrial and Systems Engineering Program: (see Appendix J)**

The Industrial and Systems Engineering program is proposing several changes in the B.S. degree requirements. They are summarized as follows:

The following changes are made:

ISE 404, 411, 412, 432, and 433 - renumber to the 300-level since they are all typically taken by junior ISE majors.  
ISE 325 - revise content and course description, suggested by new faculty member.

Also attached is the new curriculum plan for Class of 2020, which includes the following changes:

- 1) replace ECN 201 with a more flexible general education outcome
- 2) remove EGR 316 engineering ethics since it has not yet been submitted to the new general education program



- 3) replace PHY 205/275 with a basic science elective
- 4) re-number 404, 411, 412, 432 and 433 to 300-level comparable numbering system
- 5) add ISE 420 as required course, based on comparison with other ISE curriculum plans at other universities
- 6) re-arrange which semester courses are recommended
- 7) correct title of ISE 220 to match catalog
- 8) specify general education minimum credits
- 9) update professional elective list to match URI Business Minor courses which were updated in 2015
- 10) define science elective options in footnote

**3) Changes to the BS in Mechanical Engineering Program: (see Appendix K)**

The Mechanical Engineering program is proposing several changes in the B.S. degree requirements. They are summarized as follows:

The Mechanical Engineering program currently has a requirement that all students enroll in ECN 201 during the Spring of their Freshman Year. ECN 201 will no longer be a requirement for the Mechanical Engineering BS degree. Instead, the students can take a general education course of their choice.

The Mechanical Engineering program currently has a requirement that all students enroll in PHY 205 and PHY 275 during the Spring of their Sophomore Year. PHY 205 and PHY 275 will no longer be a requirement for the Mechanical Engineering BS degree. Instead, the students can elect one of the following Science elective courses: PHY 205/275, CHM 112, CHM 124

As a result of these changes, the total number of credits required for graduation will drop from 122 to 121.

**4) Creation of a Minor in Robotics Engineering: (see Appendix L)**

Any engineering major may declare a “Minor in Robotics Engineering” field of study, which will be listed on the student’s academic record after graduation. Requirements may be satisfied by completing 18 credit hours. Student must complete one of the following options, as well as an additional three courses (9 credits) from the list of supporting courses. The choice of option is not restricted by major.

Option 1, Ocean Engineering Focus: (9 credits)

Ocean Engineering: Robotic Ocean Instrumentation Design (OCE360)

Ocean Engineering: Design of Remotely Operated Vehicles (OCE467)

Math: Linear Algebra (MTH215)

Option 2, Mechanical Engineering Focus: (9 credits)

Mechanical Engineering: Computer Control of Mechanical Systems (MCE431)

Mechanical Engineering: Mechatronics (MCE433)

Math: Linear Algebra (MTH215)

Option 3, Electrical Engineering Focus: (9 credits)

Electrical Engineering: Digital Control Systems & Lab (ELE 458/459)

Electrical Engineering: Mobile Computing (ELE 470)

Math: Linear Algebra (MTH215)

Supporting Courses: (Choose 3 other courses - 9 credits total.)

Offered Fall Semester		
Electrical	Mobile Computing	ELE470
Mechanical	Mechatronics	MCE433
Ocean	Robotic Ocean Instrumentation Design	OCE360
	Hydrodynamics	EGR515

Offered Spring Semester		
Electrical	Microprocessors	ELE205/206
	Digital Control Systems & Lab	ELE458/459
	Computer Vision	ELE583
Mechanical	System Dynamics	MCE366
	Computer Control of Mechanical Systems	MCE431
	Real-Time Monitoring and Control	MCE530
	The Mechanics of Robot Manipulators	MCE566
Ocean	Design of Remotely Operated Vehicles	OCE467
	Biomimetics in Ocean Engineering	OCE516

	Modeling, Simulation, and Control of Marine Vehicles	OCE562
Oceanography	Modern Oceanographic Imaging and Mapping Techniques	OCG555

With prior approval, supporting courses may be substituted with appropriate other courses including special projects. Application for the robotics engineering minor must be filed in the Engineering Dean's Office any time before graduation.

### C. COLLEGE OF HUMAN SCIENCE AND SERVICES:

#### 1) Changes for the Bachelor of Science Degree in Kinesiology: (see Appendix M)

The Department of Kinesiology has altered the curriculums for the exercise science, health and physical education and early contingent physical therapy programs to accommodate the new URI general education program. This necessitated very minor changes in how the curriculum is presented to students. No required courses were added to or subtracted from the programs

#### 2) Changes for the Bachelor of Science Degree in Health Studies: (see Appendix N)

Health Studies has altered the curriculum to accommodate the new URI general education program. This necessitated very minor changes in how the curriculum is presented to students.

We are proposing changes to the prerequisites and classes offered within each specialization.

- a. adding the following prerequisite to HLT 200: Introduction to Health Studies (4 cr): at least sophomore standing.
- b. adding the following prerequisites to HLT 450: Advanced Health Studies (4 cr): at least junior standing, grade of C or higher in HLT 200, PSY 200 or STA 307.
- c. adding HLT 100: Introduction to Public Health and Health Studies (3 cr) as a requirement for all majors [pending class approval].
- d. adding PHP 201: Introduction to the U.S. Health Care System (3 cr) as a possible elective for each specialization (health services, health promotion, and global health) (see attachment 1, letter from Dr. Barbour).
- e. adding HDF 200: Life Span Development (3 cr) as possible class for the Health Promotion specialization (see attachment 2, email from Dr. McCurdy).
- f. adding HDF 440: Environmental Context of Aging (3 cr) as possible class for the Health Promotion specialization (see attachment 3, email from Dr. Leedhal)
- g. adding PSC/HDF 405: Policy Issues in Health & Aging (4 cr) to the Health Services specialization (see attachment 4, email from Dr. Leedhal)
- h. removing PHP/NUR 143: Sustainable Solutions for Global Hlt Problems (3 cr) from the Global and Environmental Health specialization as it is not offered (see email from Dr. Quilliam). Note: this class is not included on the curriculum sheet.
- i. removing NUR/PHP 114: Responsible Health Care (3 cr) from the Global and Environmental Health specialization as it is not offered (see attachment 5, email from Dr. Quilliam). Note: this class is not included on the curriculum sheet.
- j. changing the name of HLT 200: Introduction to Interdisciplinary Health Studies to Interdisciplinary Approaches to Health. This change is required due to the proposed addition of HLT 100: Introduction to Public Health and Health Studies (3 cr)
- k. removing BPS 201: How Drugs Work. This change is required as the class is infrequently offered. Interested students can take this class as a free elective. Note: this class is written in blue font on curriculum sheet.

#### 3) Changes for the Bachelor of Arts Degree in Elementary Education: (see Appendix O)

##### Delete Second Major requirement

Currently Elementary Education majors are required to have a second major. This is not a requirement for accreditation or certification locally or nationally. We will no longer require a second major. We will recommend students pursue additional certifications in Middle Level and ESL teaching. Middle level will require at least 21 credits in a content area taught in middle school (English Language Arts, Mathematics, Science, Social Studies). This may lead to students choosing to complete a second major. ESL has a group of eight courses required for certification, which could be a minor.

##### Delete required courses taken through general education

In the prior general education program students were required by our major to take COM 100, WRT 104, PSY 113, HIS 141 or 142, and a foreign language in their general education program. We believe that there will be ample opportunity in the new general education program for students to get a breadth of experience necessary to enhance their general knowledge. We will retain PSY 232 or HDF 200 (development), and a lab science as requirements for our program. However, students will be informed that they can choose to take these courses as part of their general education program.

In addition, we will encourage students to take additional courses in English Language Arts, Mathematics, Science, and Social Studies in order to further develop content knowledge necessary for teaching elementary school children.

Add to the requirements of the Elementary Education BA program: MTH 208 (4) Numeracy for Teachers and MTH 209 (4) Numeracy for Teachers II. MTH 208 may be taken as a general education course.

Nationally there is always a concern that Elementary Education teachers entering the profession have sufficient Mathematics expertise upon entering the profession. Our accreditors (ACEI, NCATE, RIDE) and other interested parties look to see that our students are receiving sufficient preparation in Mathematics.

In consultation with the Mathematics department a course was developed focusing on the Mathematics needed by teachers so that they would be able to competently teach Mathematics. MTH 208 Numeracy for Teachers was the course developed. This course was designed by the Mathematics Department to provide an in-depth experience for Elementary Education majors on the Mathematics they are required to teach in grades 1-8. HDF Early Childhood candidates also take the course. MTH 208 has been offered for over 10 years and is part of the current general education program and is being considered for the revised general education program. We have 'highly recommended' but have not required this class of our students at this point. At this time students usually take MTH 208 as part of their general education program. The Mathematics Department, in consultation with Elementary Education, recommended that MTH 208 be split into two courses so that student can get sufficient experience with mathematics concepts. Mathematics 209 was approved in May 2015. The courses are meant to be a two-semester sequence and are to be taken prior to taking EDC 456 Mathematics Methods in Elementary and Middle School Teaching (second semester Junior year).

We expect that approximately 60 Elementary Education candidates will take these classes every year once the cycle is established. Early Childhood candidates may also take these classes. These candidates will be better able to apply appropriate mathematics concepts in their methods class and in their classroom. While this will add 8 credits to the Elementary Education program, with attentive advising, there should be no difficulty for students to complete their degree in 4 years. Many may choose to take 4 of these credits in their general education program.

#### **4) Changes for the Bachelor of Science and Bachelor of Arts Degrees in Secondary Education: (see Appendix P)**

Delete required course taken through general education:

In the prior general education program students in secondary education were required by our major to take PSY 113 General Psychology, COM 100 Communication Fundamentals, and one of the following: WRT 104 Writing to Inform and Explain, WRT 105 (no longer in Catalog) or WRT 106 Introduction to Research Writing). We will no longer be requiring secondary education majors to take specific courses as part of the major or as a requirement for general education.

### **D. COLLEGE OF PHARMACY:**

#### **1) Creation of Academic Health Collaborative (AHC) Course Code: (see Appendix Q)**

Members of the Colleges of Pharmacy, Nursing, and Health Science request the creation of a new course code AHC (Academic Health Collaborative). Faculty in these areas are working to create team taught interdisciplinary courses that cross disciplines and may be used for general education credit. We also hope this will facilitate inter-professional education. Presently, we can cross list courses from different departments but this becomes unwieldy with several departments.

#### **2) Changes for B.S. Pharmaceutical Sciences (BSPS) and Doctor of Pharmacy (PharmD) programs: (see Appendix R)**

Summary: PharmD; no change to degree credits or required courses, change catalog language and curriculum map to reflect the newly approved General Education Program and minor inconsistencies in catalog language. BSPS:

Substituting 19 credits of coursework; no change to 120 total credits for degree, changing catalog language and curriculum map to reflect the newly approved General Education Program.

Rationale: **BSPS Changes:**

The BS Pharmaceutical Sciences degree program was approved by the Faculty Senate in March, 2009. Our first recruited freshman class from Fall 2010 graduated in May 2014 (19 graduates). Prior to 2014, we had a total of 12 students complete the degree, all of whom transferred into the upper levels of the program from other degree programs. We had an additional 32 graduates in May 2015. During the full-implementation process of the program we determined a number of modifications to the original approved program were necessary and beneficial and request these changes as described in this Notice of Change.

In the requested revision, nine credits were substituted during the freshman & sophomore curriculum. Notably, the physics requirement (PHY111,185, General Physics I, 4 cr) are being removed as faculty have determined that the content of this first of a two-semester sequence was not essential as a pre-requisite for the upper-level BSPS curriculum. Three of these 4 credits were replaced by including MTH111 Pre-calculus (3 cr) as a specific required course for those not

fulfilling criteria for placement into MTH131 Calculus directly from high school. Students placing directly into MTH131 have 3 cr of free electives to replace MTH111. The 4th credit was filled by a new required course, BPS250 (1cr) Professional Development and Careers in Pharmaceutical Science. This course was developed to ensure that students recognize early the multiple career opportunities afforded by the degree and assist students in developing a sequence of elective courses and/or internships targeted towards their career aspirations within the pharmaceutical field.

The remaining credits changed during freshman and sophomore curriculum simply adjusted for changes made by the host departments in course coding: General Biology I and lab now listed as separate courses, BI0101(3) and BIO 103 (1); STA308 now listed with 1 additional credit for the recitation now required by the statistics department. In addition, the degree requirements were modified to include language previously approved by faculty senate for the new General Education Program.

In the requested revision, ten-credits of course substitutions were made to the junior and senior curriculum. We removed BPS311(2), BPS321(2), PHP580 (3) and BPS587 (3) from the major. We added to the major the new courses BPS345 (3), BPS401 (3), BPS402 (3), BPS446 (3) and BPS460 (3). [Note: BPS345x and BPS446x are in the process of conversion to permanent courses. BPS460 is in the process of new course approval.] The new courses were designed specifically for the BPS program to replace 500-level graduate courses (PHP580, BPS587}, to replace courses in the PharmD curriculum (BPS311, BPS321}, and to further strengthen the curriculum offerings in BPS.

Lastly, we removed the language for the four named specializations because many of these courses were obsolete and not currently being taught. The specializations were replaced with a two-tiered plan, Required Core Courses in the Major (23 credits) and Additional Courses in the Major (Professional Electives, 24 credits}. To maintain student choice, we added language allowing substitution of up to a maximum of 12 credits of the Professional Electives. List of approved alternative courses will be maintained by the College of Pharmacy Associate Dean for Academic Affairs with consultation of the Chair of BPS Department and BPS Program Coordinator so that the list can be updated regularly to reflect new and obsolete courses.

#### **PharmD Changes:**

The degree requirements were modified to include language previously approved by faculty senate for the new General Education Program. Other minor changes were made for editorial consistency.

### **E. UNIVERSITY COLLEGE FOR ACADEMIC SUCCESS:**

#### **1) Changes of ITR and CSV course codes and numbers to UCS: (see Appendix S)**

University College for Academic Success (UCAS) is organizing and combining various course codes. UCAS will re-list ITR and CSV courses within the UCS code. We are doing this so all of our courses (including some existing UCS courses) have the same code. All courses will remain at the 300 level.

ITR300=UCS300

CSV301=UCS311

CSV302=UCS312\*

CSV302H=UCS312H\*

CSV303=UCS313

ITR302=UCS380\*

ITR304=UCS381\*

ITR301=UCS382\*

ITR303=UCS383\*

\*Course change proposals have been submitted for these courses because the code and number change affect the title, description, and/or pre-requisites.