

I. 500/600-level courses

Changes:

- 1) College of Human Sciences and Services
Human Development and Family Studies

HDF 536 Family Dynamics and Health

Change in pre-requisites to “Graduate standing in HDF or permission of instructor.”

- 2) College of Arts and Sciences

Department of Computer Science and Statistics

CSC 524 Advanced Incident Response: proposed change to **CSF 524**

Change in course code from CSC 524 to CSF 524, change in delivery method to online, and change in prerequisites to “CSF 432 or CSF 410.”

New Courses

- 1) College of Arts and Sciences
English

ENG 695 Practicum: Teaching College English (1)

Practicum for students teaching a college-level English course. Supervision of course preparation, presentation, and evaluation. (Practicum 1) S/U credit. Pre: permission of the Chair. May be repeated for a total of 3 credits with permission of the Chair.

- 2) College of Environmental and Life Sciences
Geosciences

GEO 512 Seismology (4)

Concepts in modern day and classical seismology. Topics covered: theories of wave propagation, instrumentation, Earth’s structure and tomography, seismic source theory, earthquake physics. Emphasis on quantitative, mathematical, and physical methods. Pre: permission of instructor.

Additional Curricular Matters

1) College of Engineering
Chemical Engineering

CHE Program Changes

Summaries of changes to the CHE graduate program and rationales for these changes

Contact: Assoc Prof Michael Greenfield, greenfield@egr.uri.edu , 4-9289

Changes in required courses and course credits in the PhD program:

- Switch from mandating 2 graduate courses each in Thermodynamics (513, 614) and in Transport Properties (541, 641) [note that “Transport Processes” means fluid flow/ heat transfer / mass transfer] to 1 graduate course in each area (513 or 614, and 541) . Clarify that these courses must be taken at URI.

One consequence is that URI MS students who continue for a PhD do not need to take subsequent thermodynamics and transport courses, because CHE 513 and 541 are both required for the CHE MS degree at URI.

- Convert the no-longer-required 6 course credits (614, 641) into one graduate elective (3 credits), two semesters of seminar counting toward program credit (1 credit each for CHE 501, 502), and additional graduate research (CHE 699, 1 credit).

Rationale: The Chemical Engineering faculty feel that it provides a more balanced classroom experience for students to receive a technical course of their choice rather than two additional courses in thermodynamics and in transport phenomena. While PhD programs at other universities typically require a range of courses (which depends on the specific school), such lists invariably include only a single course each in thermodynamics and in transport phenomena.

This program change reduces (by 1) the total number of courses in the URI CHE PhD program.

The course requirements that will be in place after this change (11 courses to reach 33 credits, of

which 2 courses are the thermodynamics and transport courses and 9 are electives) are within the range of coursework requirements in Chemical Engineering PhD programs at other universities. The department considers this change in coursework/research balance to be a net positive change for our students. It raises the number of research credits in the PhD from 36 to 37.

Clarifications to the seminar requirements in the PhD program:

- Clarify that CHE 501/502 are required each semester for on-campus students.
- Clarify alternatives to CHE 501/502 for off-campus students.

Rationale: The role of the 1-credit CHE seminar (CHE 501 in fall, 502 in spring) is to expose graduate students to the diversity of chemical engineering problems and research that are being solved in academic and industrial settings. Most CHE faculty enjoy the seminar program for these same reasons. Student understanding of seminars continues to evolve throughout graduate school, so ongoing participation in the seminar program is a requirement for all on-campus MS and PhD graduate students in the program. While asking questions and otherwise engaging with the speaker is actively encouraged, attending the seminar is the only measure that is used to check on participation and to assign S/U credit. Hence the department requests the phrasing for the catalog that cites the attendance requirement is desired.

The department has had occasional graduate students who decline to attend the seminar and thus are failing to meet this program requirement. The requested phrasing will provide additional emphasis to the graduate students that even though exposure to problems from outside URI (via seminars) is only a small part of the graduate program, it is not optional.

Off-campus students are engaged in a part-time graduate program specifically because they are working at a job or other off-site location that invariably entails applying chemical engineering principles to problems being solved away from URI. Thus they can achieve the spirit of what is intended to be learned from CHE 501 and 502, and they are exempt from the participation requirement. This perspective also accounts for how it is difficult for off-campus students to

come to URI for a 1-hour seminar in the middle of a weekday. (From a workplace perspective, it would be an unrealistic expectation.)

Editorial changes to Ph.D. description in the catalog:

- Clarify admissions background.
- Clarify the need for direct PhD candidates who lack a masters degree to take a Qualifying Exam (as is mandated by the URI Graduate School).

- Add joint CHE/Pharmacy faculty into CHE faculty listing:

Samantha Meenach (51/49) and David Worthen (49/51)

- Update specializations to include Samantha Meenach's research topics. Remove specializations that were specific to faculty who are no longer active in the department (emeritus status).

Rationale: The wording change for the admissions background reflects the actual practice that is required for successfully completing a Chemical Engineering PhD after having a different prior academic background. The courses that are chosen are specific to a student's prior background. The wording addition about the qualifying exam emphasizes the rules that are already in place in the URI Graduate Manual. This statement is meant as a specific emphasis for direct-entry PhD students.

Assistant Prof Samantha Meenach joined URI in 2013-2014 and needs to be added.

Polymer certificate program change:

- Add CHE 529 *Polymer Experimental Methods* as a course that can count toward the 4-course graduate certificate.

Rationale: the course contents are appropriate for the certificate.

CHE Catalog Changes

Chemical Engineering

M.S., Ph.D.

401.874.2655

Faculty: Professor Brown, chair; Professor Greenfield, director of graduate studies. Professors Bose, Brown, Gregory, and Lucia; Associate Professors Bothun, Greenfield, and Rivero-Hudec; Assistant Professors Meenach and Worthen; Research Professor Crisman; Adjunct Professor Nystrom, Adjunct Associate Professor Mehos, Professors Emeriti Barnett, Gray, Knickle, Rockett, and Rose.

Specializations

Biochemical engineering: reactors, purification methods, degradation, and chemical production.

Bionanotechnology: hybrid bio/nano materials, drug delivery, biomolecular processes, nanocomposite hydrogels and microparticles, sensors and devices.

Energy engineering: analysis of energy systems, multiphase flow and water conservation.

Environmental engineering: separation methods, heavy metal removal, solvent recovery, hazardous waste minimization, and desalination.

Materials engineering: corrosion and erosion, electronic materials processing, ceramic processing, polymer films, conducting polymers and thin film materials and sensors.

Pharmaceutical engineering: dry powder processing, production of particle-based therapeutics, engineering of therapeutic particles, and treatment of diseases.

Polymer engineering: thermophysical properties of polymers, polymer process modeling and control, and molecular modeling.

Process simulation: process design, optimization, and analysis; process control; numerical methods.

Surface, interfacial and colloidal phenomena: soft and hard colloids, nano composites, and imaging techniques.

Master of Science

Admission requirements: bachelor's degree in chemical engineering; candidates from other engineering fields or from mathematics, biology, chemistry, or physics may be accepted into the program with possible addition of prerequisite courses.

Program requirements: 30 credits including CHE 501, 502, 513, 541, 599 (6-12 credits). For 12 thesis credits, no special problems or graduate seminar credit is permitted, 18-24 credits of course work. Nonthesis option for part-time students, with permission of the chair, requires master's examination and comprehensive report with oral examination. Attendance in CHE 501 or 502 is required every semester for all on-campus students.

Doctor of Philosophy

Admission requirements: B.S. or M.S. degree in chemical engineering; candidates from other engineering fields or from mathematics, biology, chemistry, or physics may be accepted into the program with possible addition of prerequisite courses.

Program requirements: Candidate's program will be determined in consultation with his or her committee and will be based on his or her background and career goals, and must include at least one course each in CHE thermodynamics (513, 614) and CHE transport (541) at URI. Students with a masters degree require CHE 501, 502, 699 (25 credits) and fifteen credits of course work beyond the MS. Students with a bachelors degree require a qualifying exam, CHE 501, 502, 699 (37 credits), and 33 credits of course work. A comprehensive examination and an acceptable dissertation are required of all students to complete the program. Attendance in CHE 501 or 502 is required every semester for all on-campus students. Off-campus students can replace 501 and 502 with additional 691, 692, or 699 credits.

Polymer Certificate Program

The postbaccalaureate certificate program in polymers is targeted toward students who possess a bachelor's degree in an engineering or science field and are seeking further education in polymers. The program provides opportunities for students to improve their knowledge of polymers in areas outside of their specific field of expertise, to apply their technical knowledge to problems in polymer engineering and science, and to develop technical skills that can be applied in industrial polymer engineering positions.

Admission requirements: same as for M.S.

Program requirements: successful completion of four courses from CHE 513, 529, 530, 531, and 537.

2) College of Human Science and Services
Human Development and Family Studies

HDF program proposes to waive the GRE requirement:

MEMO

TO: Keith Killingbeck, Chair of the Graduate Curriculum Committee

FROM: Sue Adams-Labonte

DATE: January 24, 2014

RE: Change to HDF Master's program requirements

Dear Dr. Killingbeck,

The Developmental Science Master's program in Human Development and Family Studies is requesting that the GRE requirements be waived for all future applicants beginning in the 2014-2015 academic year. The rationale for this request is below:

1. The GRE's are not currently used in any meaningful way by our program to determine admittance. Rather, we more heavily rely on undergraduate grades and letters of recommendation. If this request is granted, we plan to require at least two academic references. Currently, we allow one academic letter and one supervisor/employer letter. We also plan to increase the minimum GPA requirement from 3.0 to 3.2, which has been more reflective of success completing our program.
2. The College Student Personnel Master's program in Human Development and Family Studies waived the GRE requirement many years ago. We are hoping to more closely align with their admittance requirements.
3. We are hoping that waiving this requirement will increase enrollment in our program.

Please feel free to contact me, Sue K. Adams, at 401-874-5958 with any additional questions or concerns.

Regards,



Sue K. Adams

HDF Developmental Science Program Director