

Notice of Change for the BS in Industrial and Systems Engineering Program

Date:

A. PROGRAM INFORMATION

1. Name of institution

University of Rhode Island

2. Name of department, division, school or college

Department: MCISE

College: COE

3. Intended initiation date of program change. Include anticipated date for granting first degrees or certificates, if appropriate.

Initiation date: Fall 2016

First degree date: Spring 2017

4. Intended location of the program

Kingston

5. Summary description of proposed program (not to exceed 2 pages).

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 a 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

If applicable, please include the existing URI catalog language and proposed catalog language changes that relate to your request.

CURRENT:

The [industrial and systems engineering major](#) requires 122 credits.

Freshman Year First semester: 15 credits

CHM 101 (3), 102 (1); EGR 105 (1); MTH 141 (4); and two general education requirements¹ (6).

Second semester: 16 credits

ECN 201 (3); EGR 106 (2); MTH 142 (4); PHY 203 (3), 273 (1); and general education requirement¹ (3).

Sophomore Year First semester: 14 credits

[ISE 240 (3) and 241 (1) **or** MCE 201 (3) and ISE 220 (1)]; MCE 262 (3); MTH 243 (3); and PHY 204 (3), 274 (1).

Second semester: 14 credits

CVE 220 (3); [ISE 240 (3) and 241 (1) **or** MCE 201 (3) and ISE 220 (1)]; MCE 263 (3); MTH 362 **or** 244 (3); and PHY 205 (3), 275 (1).

Junior Year First semester: 15 credits

CHE 333 (3); EGR 316 **or** PHL 212 (3); ISE 325 (3), 411 (3), 432 (3).

Second semester: 15 credits

BUS 201 (3); ELE 220 (3); ISE 404 (3), 412 (3), 433 (3)

Senior Year First semester: 15 credits

ISE 401 (3) [**capstone**], 451 (3); professional electives² (6); and free elective (3).

Second semester: 15 credits

ISE 402 (3) [**capstone**]; professional electives² (9); and general education requirement¹ (3).

¹ Recommend ECN 202 [GE-S] as one (1) general education choice.

² *Professional Elective Requirements:* Must be satisfied by fifteen (15) credits of professional electives, at least six (6) of which must be 400- or 500-level ISE courses not required by the ISE major. The **remaining courses** may be any 300-, 400-, or 500- level courses offered by the College of Engineering not required by the ISE major, CSC, MTH, or PHY (*except CHE 328, 351, 352; CSC 320; MTH 381, 420, 451, 452; PHY 322, 381, 382; courses in professional practice; seminars*); BUS 315, 316, 320, 341, 344, 365, 420, 444, 450; ECN 323, 324, 327, 328, 344, 363, 368, 376; STA 412 or any 500-level³ STA courses (*except STA 532*); MBA 530, 550.

³**Note:** Only ISE 513 **or** STA 513 will be allowed – not both (*these are cross-listed courses*).

PROPOSED:

The [industrial and systems engineering major](#) requires 121–124 credits.

Freshman Year First semester: 15 credits

CHM 101 (3), 102 (1); EGR 105 (1); MTH 141 (4); and two general education outcome¹ (6).

Second semester: 16 credits

EGR 106 (2); MTH 142 (4); PHY 203 (3), 273 (1); and general education outcome¹ (6).

Sophomore Year First semester: 17 credits

[ISE 240 (3) and 241 (1) **or** MCE 201 (3) and ISE 220 (1)]; MCE 262 (3); MTH 243 (3); PHL 212 (3); and PHY 204 (3), 274 (1).

Second semester: 16 credits

CVE 220 (3); [ISE 240 (3) and 241 (1) **or** MCE 201 (3) and ISE 220 (1)]; MCE 263 (3); MTH 362 **or** 244 (3); and science elective³ (3).

Junior Year First semester: 15 credits

BUS 201 (3); CHE 333 (3); ISE 325 (3), 311 (3), 332 (3).

Second semester: 15 credits

ELE 220 (3); ISE 304 (3), 312 (3), 333 (3), professional elective² (3).

Senior Year First semester: 15 credits

ISE 401 (3) [**capstone**], 420 (3), 451 (3); professional electives² (3); and general education outcome¹ (3).

Second semester: 15 credits

ISE 402 (3) [**capstone**]; professional electives² (9); and general education outcome¹ (3).

¹ General education outcomes: If all Outcomes are satisfied in fewer spaces than provided, you must take other courses to reach a minimum of 40 credits in general education courses and 120 credits total.

² *Professional Electives*: Must be satisfied by fifteen (15) credits of professional electives, at least six (6) of which must be 400- or 500-level ISE courses not required by the ISE major. The remaining courses may be any 300-, 400-, or 500- level courses offered by the College of Engineering not required by the ISE major, CSC, MTH, or PHY (except CHE 328, 351, 352; CSC 320; MTH 381, 420, 451, 452; PHY 322, 381, 382; courses in professional practice; seminars); BUS 320, 341, 344, 355, 365, 420, 443, 448, 449, 444, 450; ECN 323, 324, 327, 328, 344, 363, 368, 376; any 500-level STA courses (except STA 532); MBA 530, 550; PSY 335, 384, 385, 434. Note: Only ISE 513 **or** STA 513 will be allowed – not both (*these are cross-listed courses*).

³ *Science Elective*: Choose from CHM 112, CHM 124, KIN 122, NRS 100, or PHY 205. Please note that CHM 112, CHM 124, and KIN 122 are not general education classes.

6. Signature of the President

David M. Dooley

Fwd: KIN 122

1 message

C. Rousseau <rousseau@uri.edu>

Tue, Apr 19, 2016 at 4:03 PM

To: Jared Abdirkin <jabdirkin@uri.edu>

Jared ~ Please see the endorsement from KIN below.

Thank you,

Carl-Ernst Rousseau, P.E., Ph.D.

Assoc. Professor & Chair
Mechanical, Industrial & Systems Engineering
University of Rhode Island
203 Wales Hall, 92 Upper College Rd.
Kingston, RI 02881

Tel: (401) 874-2542
Fax: (401) 874-2355
E-mail: rousseau@uri.edu

Begin forwarded message:

From: Deborah Riebe <debriebe@uri.edu>
Subject: KIN 122
Date: April 19, 2016 at 2:19:06 PM EDT
To: Carl-Ernst Rousseau <roussce@uri.edu>

Dr. Rousseau,
The Department of Kinesiology supports your request to allow students in the ISE program take KIN 122 as a required course (choice between NRS 100, PHY 205, KIN 122, or CHM 112, 124).

Sincerely,
Deb Riebe

Deborah Riebe, Ph.D., FACSM
Department of Kinesiology
University of Rhode Island
Kingston, RI 02816
401-874-5444

Fwd: Letter of Support for ISE

1 message

C. Rousseau <rousseau@uri.edu>
To: Jared Abdirkin <jabdirkin@uri.edu>

Tue, Apr 19, 2016 at 1:06 PM

Dear Jared,

Please note NRS' positive reply.

Thank you,

Carl-Ernst Rousseau, P.E., Ph.D.

Assoc. Professor & Chair
Mechanical, Industrial & Systems Engineering
University of Rhode Island
203 Wales Hall, 92 Upper College Rd.
Kingston, RI 02881

Tel: (401) 874-2542
Fax: (401) 874-2355
E-mail: rousseau@uri.edu

Begin forwarded message:

From: Arthur Gold <agold@uri.edu>
Subject: Re: **Letter of Support for ISE**
Date: April 19, 2016 at 1:02:58 PM EDT
To: "C. Rousseau" <rousseau@uri.edu>, Brett Still <bstill@uri.edu>

Dear Dr. Rousseau,

The NRS department is pleased to receive ISE students into NRS 100. We are able and willing to accommodate increased enrollments.

Best wishes.

Art

Arthur J Gold Ph.D.
Professor and Chair
Dept of Natural Resources Science
University of Rhode Island
Kingston, RI 02881
agold@uri.edu
401 874 2903

Re: Notice of Change - Curriculum change

1 message

C. Rousseau <rousseau@uri.edu>

Tue, Apr 19, 2016 at 11:00 AM

To: Musa Jouaneh <jouaneh@uri.edu>

Cc: Carl-Ernst Rousseau <roussce@uri.edu>, Valerie Maier-Speredelozzi <valerie@uri.edu>, Manbir Sodhi <sodhi@uri.edu>, Jyh-Hone Wang <jhwang@uri.edu>, Gretchen Macht <macht@uri.edu>, Jared Abdirkin <jabdirkin@uri.edu>

Hi All,

I heard from PHY. The Chair can only admit our students in PHY 205/275

However, he proposes to try and convene an emergency department meeting today, if possible, to discuss the other PHY courses.

Thank you,

Carl-Ernst Rousseau, P.E., Ph.D.

Assoc. Professor & Chair
Mechanical, Industrial & Systems Engineering
University of Rhode Island
203 Wales Hall, 92 Upper College Rd.
Kingston, RI 02881

Tel: (401) 874-2542
Fax: (401) 874-2355
E-mail: rousseau@uri.edu

Letter # 1 CHM (ISE & MCE)

1 message

Carl-Ernst Rousseau <roussce@uri.edu>

Tue, Apr 19, 2016 at 4:48 AM

To: Jared Abdirkin <jabdirkin@uri.edu>

Jared ~ Here is the support document from CHM for both programs. Carl

Begin forwarded message:

From: URI Chemistry Chair <chair@chm.uri.edu>

Subject: Chemistry Lecture Courses for Industrial and Mechanical Engineering Students

Date: April 18, 2016 at 9:28:24 AM EDT

To: roussce@uri.edu

Carl,

As we discussed on the phone, the Chemistry Department has the capacity to increase the number of students in the lecture courses CHM 112 or CHM 124. If students in Industrial or Mechanical Engineering choose either of these options for their curriculum, the Chemistry Department will be able to accommodate the demand without additional resources.

However, to be clear, this does not pertain to any laboratory course.

Bill

—

Dr. Bill Euler
Professor & Chair, Chemistry
University of Rhode Island
phone: 401-874-5090
fax: 401-874-5072

Subject: Re: ISE and PSY
To: "Valerie Maier Speredelozzi" <valerie@uri.edu>
Cc:

Hi,

You are welcome to communicate with Enrollment Services about the time change. Also, I would be pleased to have you list Psy113 in your curriculum. My large sections of the course are taught with an emphasis on the biological foundation and research methods. I encourage others to teach the course this way, as well.

In the context of upper level psychology courses, adding students to one of these courses when they have not met the prerequisites is a decision made by the instructors assigned to each course. I would personally voice support for this request, although it is usually desirable for students enrolled in these courses to have experience with (human/non-human) behavioral problems in the mastery of statistics and research methods. But, permission numbers are typically under the control of our instructors.

I would like to continue discussion of potential collaborations between our departments, so let's keep this dialogue open. su

Su L. Boatright
Professor and Interim Chairperson
Psychology Department
University of Rhode Island
401-952-7303 (cell, preferred)
401-874-2193 (office)

Sent from my iPad

On Apr 5, 2016, at 11:44 PM, Valerie Maier Speredelozzi <valerie@uri.edu> wrote:

Dear Su,

I am writing on behalf of the Industrial and Systems Engineering program with a few requests and questions.

First, one of the classes that ISE has cross-listed with PSY is scheduled for Fall 2016, but at the wrong time. ISE 420 is now scheduled for Tues/Thurs 2-3:15pm. The PSY 420 class was scheduled at the same time as last fall, as the default, so I'd like to move it to the new time. Will you contact enrollment services about this, or would you like me to do that?

Second, our ISE curriculum committee has been meeting to update our curriculum. We would possibly like to add some PSY classes as optional electives that our students can take. We are adding a "science elective" where students will have a choice of several lower-level courses. We are considering adding PSY 113 to this list, although we need to check with our accreditation agency to see if they would approve, since psychology may be considered more social science than basic science. Would this work for the Psychology dept?

Also, we have a list of acceptable professional electives and we were considering adding PSY 335, 384, 385, 434 since these are the topics most closely related to ISE and have minimal pre-requisites. Would the PSY department be willing to admit some ISE students to these courses, even if the ISE students had not taken PSY 200 or 301? These would be juniors and seniors in engineering who had already completed 4 calculus classes and 2 classes in statistics including quality and design of experiments.

Thank you for your consideration of these requests,
Sincerely,
Valerie