



## Academic Programs Committee of Council

### University Course Challenge

**Scheduled posting: November, 2016 AS RESOLVED (November 30, 2016)**

The following types of curricular and program changes are approved by the University Course Challenge -- additions and deletions of courses, lower levels of study and program options; straightforward program changes; and changes to courses which affect other colleges.

**Contents include submissions for information and approval from the following colleges:**

College of Arts & Science  
College of Agriculture & Bioresources  
College of Dentistry  
College of Education  
College of Engineering  
College of Graduate Studies & Research  
College of Nursing  
College of Pharmacy & Nutrition

**Approval:** Date of circulation: November 16, 2016  
Date of effective approval if no challenge received: November 30, 2016

#### **Next scheduled posting:**

The next scheduled Challenge document posting will be December 15, 2016, with a submission deadline of **December 12, 2016**. Urgent items can be posted on request.

Please direct challenges to both of the following: [seanine.warrington@usask.ca](mailto:seanine.warrington@usask.ca) in Registrarial Services and [amanda.storey@usask.ca](mailto:amanda.storey@usask.ca) in the Office of the University Secretary.

## University Course Challenge – November 2016

The curricular revisions listed below were approved through the Arts & Science College Course and Program Challenge, and by the relevant college-level Academic Programs Committee, and are now submitted to the University Course Challenge for approval.

Contact: Alexis Dahl (alexis.dahl@usask.ca)

### **Food Science**

#### **Minor Program Revisions**

##### **Bachelor of Science Four-year and Honours in Food Science**

B.Sc. Four-year program: Add FABS 492.3 to the C6 major requirement. Remove FABS 366.3 and FABS 493.3/ FABS 486.3 from major requirement to C7 open electives. We are also proposing to reduce the major C6 requirement from 39 credits to 36 credits. This will allow students to have more flexibility in their programs.

B.Sc. Honours program: Remove option to take FABS 486 or FABS 493 instead of FABS 494.6 in list of required courses (FABS 494.6 now required). Remove FABS 366.3 as a required course, and move to list of optional courses in C6. No change to required credit units.

#### **Bachelor of Science Four-year (B.Sc. Four-year) - Food Science** **C6 Major Requirement (39-36 credit units)**

- o [BLE 303.3](#)
- o [BMSC 200.3](#)
- o [BMSC 230.3](#)
- o [CHEM 250.3](#)
- o [FABS 110.3](#)
- o [FABS 212.3](#)
- o [FABS 315.3](#)
- o [FABS 325.3](#)
- o [FABS 345.3](#)
- o ~~FABS 366.3~~
- o [FABS 417.3](#)
- o [FABS 452.3](#)
- o ~~FABS 486.3~~ or ~~FABS 493.3~~
- o [FABS 492.3](#)

#### **C7 Electives Requirement (39-42 credit units)**

##### **Required Cognate Courses**

Choose **9 credit units** from the following:

- o [NUTR 120.3](#)
- o [STAT 245.3](#) or [PLSC 214.3](#)
- o [CHEM 221.3](#) or [CHEM 231.3](#) or [CHEM 242.3](#) or [CHEM 255.3](#)

**Open Electives (33 30-credit units)**

Arts and Science courses, or those from other Colleges that have been approved for Arts and Science credit, to complete the requirements for 120 credit unit Four-year program, of which at least 66 must be at the 200-level or higher. Students are encouraged to choose from the following list of recommended courses:

- o [BMSC 240.3](#)
- o [AREC 292.3](#)
- o [CHEM 115.3](#)
- o [CHEM 221.3](#)
- o [CHEM 231.3](#)
- o [CHEM 242.3](#)
- o [CHEM 255.3](#)
- o [COMM 204.3](#) or [AREC 230.3](#) or [ENT 210.3](#)
- o [FABS 323.3](#)
- o [FABS 334.3](#)
- o [FABS 360.3](#)
- o [FABS 362.3](#)
- o ~~FABS 366.3~~
- o [FABS 371.3](#)
- o [FABS 401.3](#)
- o [FABS 411.3](#)
- o [FABS 457.3](#)
- o [FABS 460.3](#)
- o [FABS 474.3](#)
- o [FABS 486.3](#)
- o [FABS 493.3](#)
- o [PLSC 420.3](#)
- o 200 and 300-level NUTR courses ([NUTR 221.3](#), [NUTR 305.3](#), [NUTR 310.3](#), [NUTR321.3](#), and [NUTR 322.3](#) recommended)
- o other courses at the discretion of the undergraduate student advisor

**Bachelor of Science Honours (B.Sc. Honours) - Food Science**  
**C6 Major Requirement (54 credit units)**

- o [BLE 303.3](#)
- o [BMSC 200.3](#)
- o [BMSC 230.3](#)
- o [CHEM 250.3](#)
- o [FABS 110.3](#)
- o [FABS 212.3](#)
- o [FABS 315.3](#)
- o [FABS 325.3](#)
- o [FABS 345.3](#)
- o ~~FABS 366.3~~
- o [FABS 417.3](#)
- o [FABS 452.3](#)
- o ~~FABS 486.3~~ or ~~FABS 493.3~~ or [FABS 494.6](#)

Choose **15 credit units** from the following:

- o [FABS 323.3](#)

- o [FABS 334.3](#)
- o [FABS 360.3](#)
- o [FABS 362.3](#)
- o [FABS 366.3](#)
- o [FABS 371.3](#)
- o [FABS 401.3](#)
- o [FABS 411.3](#)
- o [FABS 457.3](#)
- o [FABS 460.3](#)
- o [FABS 474.3](#)
- o [FABS 486.3](#)
- o [FABS 493.3](#)

Other courses at the discretion of the undergraduate student advisor

**College of Agriculture and Bioresources - Submission to November Course Challenge  
Changes approved by Department and College Undergraduate Affairs Committee, October 26, 2016**

PLSC 335.3 — 1(3L)  
Field Crop Disease Management

The identification and causes of field crop diseases in common crops of western Canada, as well as the abiotic factors that influence disease and crop development are discussed. Included are the principles of plant pathology and integrated disease management, which are the foundations of plant disease control. The course is supplemented with occasional guest lecturers, who have experience in the field of plant pathology.

Prerequisite(s): ~~BIOL 222 or permission of the instructor~~ PLSC 201 or 222

***Prerequisite Change: Omit BIOL 222 or Permission of the Instructor  
Add PLSC 201 or 222***

***Rationale: more appropriate background for the class provided by PLSC 201 or 222***

PLSC 345.3 — 2(3L-2P)  
Pesticides and Crop Protection

The use of pesticides for crop protection, factors affecting pesticide activity and fate of pesticides in the environment are discussed. Includes the biological activity of soil and foliar applied pesticides, pesticide modes of action and resistance, and dissipation in soil. Registration, environmental legislation and residue tolerance levels in various products are also discussed.

Prerequisite(s): ~~BIOL 120~~ PLSC 201 or PLSC 222, and PLSC 335.

Note: Students with credit for PLSC 50 will not receive credit for this course.

***Prerequisite Change: Omit BIOL 222  
Add PLSC 201 or 222 (keep PLSC 335)***

***Rationale: more appropriate background for the class provided by PLSC 201 or 222***

PLSC 401.3 — 1(3L-3P)  
Sustainable Crop Production

Components of sustainable crop production systems will be examined from an ecological perspective. Students will evaluate the sustainability of cropping systems and develop crop production systems with greater ecological and economic sustainability. Laboratories will teach techniques used in crop scouting and diagnostics.

~~Prerequisite(s): PLSC 335, SLSC 312 and s Successful completion of 75 credit units of university course work.~~

~~Note: There are additional non-refundable costs in addition to tuition fees.~~

~~Prerequisite Change: Omit PLSC 335, SLSC 312~~

~~Keep Successful Completion of 75 credit units of University course work.~~

~~Rationale: PLSC 335 and SLSC 312 are not required for background to this class. Sufficient background provided by 75 cu of coursework.~~

Prerequisite(s): ~~PLSC 335, SLSC 312~~ and Successful completion of 75 credit units of university course work.

Note: There are additional non-refundable costs in addition to tuition fees.

**Prerequisite Change: Omit PLSC 335, ~~SLSC 312~~**

**Keep Successful Completion of 75 credit units of University course work.**

**Rationale: PLSC 335 ~~and SLSC 312 are is~~ not required for background to this class. Sufficient background provided by 75 cu of ~~coursework~~.**

**Contact:** Jolana Piercy (jolana.piercy@usask.ca)

**Commented [WS1]:** As amended per College of Agriculture & Bioresources, November 30, 2016.

## College of Dentistry – University Course Challenge, November, 2016

The following program revisions and new courses were approved by the College of Dentistry Undergraduate Education Committee on October 14, 2016, and are now being submitted to University Course Challenge for approval:

### Program Revision:

#### **Doctor of Dental Medicine (D.M.D.) (~~207~~210 credit units)**

##### **Year 1**

(~~44~~45 credit units)

- ACB 334.3
- **DENT 206.1 – please see new course proposal below**
- DENT 208.3
- DENT 210.2
- DENT 214.2
- DENT 220.6
- DENT 221.2
- DENT 225.2
- DENT 226.3
- DENT 288.3
- DENT 291.18

##### **Year 2**

(57 credit units)

- DENT 301.2
- DENT 306.6
- DENT 309.2
- DENT 310.2
- DENT 314.3
- DENT 317.3
- DENT 319.4
- DENT 320.5
- DENT 321.2
- DENT 324.3
- DENT 330.5

- DENT 340.4
- DENT 348.3
- DENT 353.2
- DENT 360.5
- DENT 392.6

**Year 3**

(57-59 credit units)

- DENT 401.3
- **DENT 409.2 – please see new course proposal below**
- DENT 411.1
- DENT 417.4
- DENT 419.5
- DENT 420.5
- DENT 424.4
- DENT 430.6
- DENT 440.5
- DENT 448.3
- DENT 455.2
- DENT 460.5
- DENT 463.3
- DENT 466.2
- DENT 475.4
- DENT 480.2
- DENT 486.3

**Year 4**

(49 credit units)

- DENT 501.2
- DENT 517.4
- DENT 519.5
- DENT 520.3
- DENT 524.4



- DENT 530.5
- DENT 540.5
- DENT 542.2
- DENT 548.3
- DENT 560.3
- DENT 563.3
- DENT 575.3
- DENT 580.2
- DENT 585.5

New Course Proposals:

**DENT 206.1 – 1(1L) Dental Ethics, Professionalism and Misconduct**

Introduces students to ethics and professionalism within the dental profession. Concepts of regulation, practice standards, misconduct and ethical decision making are discussed to heighten dental students' awareness and understanding of these tenets.

**DENT 409.2 – 1(3L) Communication Skills II**

Effective communication is required as part of the patient-dentist relationship, in addition to technical competency. This course builds on the DENT 309.2 Communication Skills I course to provide students with exposure to more advanced situations likely to arise in private practice which benefit from well-developed communication skills. This is achieved through the use of standardized patients, who allow students to develop and practice listening, verbal and non-verbal language skills, rapport, empathy, professionalism and ethical awareness.

**Rationale:** Two new courses are being introduced for formal inclusion into the curriculum for the 2017-2018 academic year.

**Year 1 – Dental Ethics, Professionalism and Misconduct**

This course introduces students to ethics and professionalism within the dental profession.

**Year 3 – Communication Skills II**

This course builds on the DENT 309 course to provide students with exposure to increasingly advanced situations. Feedback from Year 2 was well received and the students demanded more.

Contact: Kelly Mulligan (Kelly.mulligan@usask.ca)

**College of Education – Correction to October, 2016 University Course Challenge submission**

Please note the correction in red to the following new course prerequisite:

**EFDT 422.3 Pedagogy Intersecting Anti-Racist Education (3S)**

This course will provide a framework for students to understand the historical and contemporary context of social justice education on Tunis island. Drawing from scholarship that includes critical race theory, queer theory, feminist theory, and anti-colonial theory, students will examine their own teaching practices, as well as investigate research examples of intersecting anti-racist pedagogy across the disciplines. Students will be required to develop critical anti-racist materials to use in their classroom, with a focus on integrating Indigenous education in their teaching practices. Intersecting anti-racist pedagogy for social change invites students and teachers to actively transform social injustices, not just study them.

~~**Prerequisite(s):** Completion of the B.Ed. internship (EXPR 422.15) and one of EDUC 301, EFDT 335, EIND 852 or EFDT 844; or permission of the instructor.~~

**Prerequisite(s):** Completion of the B.Ed. internship (EXPR 422.15) and one of EFDT 301 or EDUC 301 or EFDT 335; or permission of the instructor.

**Rationale:** Removal of the graduate-level prerequisites more accurately aligns this course with other undergraduate courses.

## College of Engineering, November, 2016 University Course Challenge Submission

The following curricular changes were approved by the College of Engineering on November 3, 2016 and are being submitted to University Course Challenge for approval:

### Environmental Engineering

Environmental engineers develop solutions to environmental problems using the principles of biology, physics, and chemistry. They are involved in water and air pollution control, recycling, waste disposal, and public health issues. Environmental engineers conduct hazardous-waste management studies, advise on waste treatment and containment, and develop regulations for environmental protection. They design municipal water supply and industrial wastewater treatment systems. They conduct research on the environmental impact of proposed construction projects, analyze scientific data, and perform quality-control checks. Environmental engineers are concerned with local and worldwide environmental issues. They are increasingly involved in the protection of wildlife. Many environmental engineers work as consultants, helping their clients to comply with regulations and to clean up hazardous sites.

All undergraduate students admitted to the College of Engineering are required to complete a common first-year of undeclared studies (known as the first-year common core). Once the first-year common core program has been completed, undergraduate students declare their preferences and compete for admission into an upper-year program. Students who are successful in securing admission into an upper-year program are required to follow the program of study that is prescribed at the time of their admission into the upper-year program.

Recognizing that course and program changes may result in a modification to the original program of study, it is recommended that undergraduate students consult an Academic Advisor within the Engineering Student Centre on a regular basis to confirm their program of study, choose courses (including electives), and monitor their academic progress.

### Program Requirements

#### Engineering (B.E.) - Bachelor of Science

##### Year 1 (34 credit units)

All Engineering programs have a common first year.

##### Year 2 (38 credit units)

###### Term 1

- CE 212.3
- ENVE 201.3
- GE 210.3
- GEOE 218.3
- MATH 223.3

###### Term 2

- CHE 210.3
- CMPT 113.3
- ENVE 212.3
- GE 213.3
- MATH 224.3

###### Term 3

- CE 271.2 (may be completed in year 2 or year 3)

**Term 1 or Term 2**

- CE 201.0 (may be completed in year 2 or year 3)

**Choose 6 credit units from the following:**

- BIOL 120.3
- CHEM 115.3
- GEOL 121.3

Students must complete BIOL 120, CHEM 115 and GEOL 121 by the end of Year 2.

**Year 3 (36 credit units)**

**Term 1**

- CE 315.3
- CE 318.3
- CE 328.3
- CHEM 250.3
- EE 204.3
- 3 credit units Complementary Studies Elective

**Term 2**

- ENVE
- ~~381.3 BLE~~
- ~~343.3 CE~~
- 319.3
- CE 327.3
- CHE 223.3
- GE 348.3
- RCM 300.3

**Year 4 (36 credit units)**

**Term 1**

- CE 420.3
- ENVE 482.3

**Term 2**

- CHE 454.3
- ~~TOX 304.3~~ or ~~EVSC 424.3~~
- BLE 313

**Term 1 and Term 2**

- ENVE 495.6

**Term 1 or Term 2**

- GE 449.3
- 9 credit units Environmental Engineering Electives: 6 credit units from Group A and an additional 3 credit units from Group A or B
- 3 credit units Environmental Science Elective
- 3 credit units Senior Humanities or Social Science Elective

**Electives**

### Science Elective

All Science Electives must be taken in year 1 and year 2.

- BIOL 120.3
- CHEM 115.3
- GEOL 121.3

### Environmental Science Elective

- BMSC 240.3
- CHEM 221.3
- EVSC 420.3
- EVSC 421.3
- FABS 212.3
- GEOL 413.3
- TOX 301.3

### Group A Electives

- ENVE 432
- ENVE 414
- ENVE 478

### Group B Electives

- CE 464.3
- CE 415.3
- CE 468.3
- GEOE 375.3
- CHE 461.3

### Environmental Engineering Elective

- CHE 461.3
- CE 414.3
- CE 464.3
- CE 468.3
- ENVE 432.3
- ENVE 478.3
- ~~ENVE 481.3~~
- GEOE 375.3
- other approved Engineering elective

### Complementary Studies Elective

Please note: due to accreditation requirements, only select GEOG courses can be applied toward the "Senior Humanities and Social Science" and "Complementary Studies" elective requirements in the Bachelor of Science in Engineering (B.E.) program. The specific courses are listed below.

- 100-Level, 200-Level, 300-Level or 400-Level ANTH Courses
- 100-Level, 200-Level, 300-Level or 400-Level ARBC Courses
- 100-Level, 200-Level, 300-Level or 400-Level ARCH Courses
- 100-Level, 200-Level, 300-Level or 400-Level ARTH Courses
- 100-Level, 200-Level, 300-Level or 400-Level CHIN Courses
- 100-Level, 200-Level, 300-Level or 400-Level CLAS Courses
- 100-Level, 200-Level, 300-Level or 400-Level CMRS Courses
- 100-Level, 200-Level, 300-Level or 400-Level CREE Courses
- 100-Level, 200-Level, 300-Level or 400-Level ENG Courses
- 100-Level, 200-Level, 300-Level or 400-Level FREN Courses
- 100-Level, 200-Level, 300-Level or 400-Level GERM Courses
- 100-Level, 200-Level, 300-Level or 400-Level GRK Courses
- 100-Level, 200-Level, 300-Level or 400-Level HEB Courses
- 100-Level, 200-Level, 300-Level or 400-Level HIST Courses
- 100-Level, 200-Level, 300-Level or 400-Level HNDI Courses
- 100-Level, 200-Level, 300-Level or 400-Level INDG Courses
- 100-Level, 200-Level, 300-Level or 400-Level JPNS Courses
- 100-Level, 200-Level, 300-Level or 400-Level LATN Courses
- 100-Level, 200-Level, 300-Level or 400-Level LING Courses
- 100-Level, 200-Level, 300-Level or 400-Level LIT Courses

- 100-Level, 200-Level, 300-Level or 400-Level POLS Courses
- 100-Level, 200-Level, 300-Level or 400-Level PSY Courses
- 400-Level RCM Courses
- 100-Level, 200-Level, 300-Level or 400-Level RLST Courses
- 100-Level, 200-Level, 300-Level or 400-Level RUSS Courses
- 100-Level, 200-Level, 300-Level or 400-Level SNSK Courses
- 100-Level, 200-Level, 300-Level or 400-Level SOC Courses
- 100-Level, 200-Level, 300-Level or 400-Level SPAN Courses
- 100-Level, 200-Level, 300-Level or 400-Level UKR Courses
- 100-Level, 200-Level, 300-Level or 400-Level WGST Courses
- COMM Select 100, 200, 300, or 400 Level
- COMM 201.3
- COMM 203.3
- COMM 204.3
- COMM 205.3
- COMM 210.3
- COMM 211.3
- COMM 304.3
- COMM 306.3
- COMM 308.3
- COMM 321.3
- COMM 323.3
- COMM 329.3
- COMM 337.3
- COMM 340.3
- COMM 342.3
- COMM 343.3
- COMM 345.3
- COMM 346.3
- COMM 347.3
- COMM 348.3
- COMM 349.3
- COMM 352.3
- COMM 354.3
- COMM 357.3
- ECON Select 100, 200, 300, or 400 Level
- ECON 111.3
- ECON 114.3
- ECON 211.3
- ECON 214.3
- ECON 221.3
- ECON 223.3
- ECON 227.3
- ECON 231.3
- ECON 234.3
- ECON 254.3
- ECON 256.3
- ECON 270.3
- ECON 272.3
- ECON 275.3
- ECON 277.3
- ECON 280.3
- ECON 285.3
- GEOG Select 100, 200, 300, or 400 Level

- GEOG 130.3
  - GEOG 202.3
  - GEOG 204.3
  - GEOG 208.3
  - GEOG 240.3
  - GEOG 280.3
  - PHIL Select 100, 200, 300, or 400 Level
  - PHIL 120.3
  - PHIL 133.3
  - PHIL 140.3
  - PHIL 202.3
  - PHIL 204.3
  - PHIL 206.3
  - PHIL 208.3
  - PHIL 209.3
  - PHIL 210.3
  - PHIL 211.3
  - PHIL 212.3
  - PHIL 215.3
  - PHIL 218.3
  - PHIL 219.3
  - PHIL 224.3
  - PHIL 226.3
  - PHIL 227.3
  - PHIL 227.3
  - PHIL 231.3
  - PHIL 233.3
  - PHIL 234.3
  - PHIL 235.3
  - PHIL 236.3
  - PHIL 237.3
  - PHIL 238.3
  - PHIL 240.3
  - PHIL 251.3
  - PHIL 262.3
  - PHIL 265.3
  - PHIL 271.3
  - PHIL 281.3
  - PHIL 285.3
  - PHIL 292.3
  - PHIL 294.3
  - PHIL 296.3
- Exception: CLAS 104.3 cannot be used to meet the Complementary Studies Elective Requirements of the program.
- Special Topics courses cannot be used to meet a Complementary Studies Elective Requirement (any course ending in 98 or 99).
- Exception: CLAS 104.3 cannot be used to meet the Complementary Studies Elective Requirements of the program.
- Special Topics courses cannot be used to meet a Complementary Studies Elective Requirement (any course ending in 98 or 99).

#### Senior Humanities or Social Science Elective

Please note: due to accreditation requirements, only select GEOG courses can be applied toward the "Senior Humanities and Social Science" and "Complementary Studies" elective requirements in the Bachelor of Science in Engineering (B.E.) program. The specific



courses are listed below.

- 200-Level, 300-Level or 400-Level ANTH Courses
- 200-Level, 300-Level or 400-Level ARCH Courses
- 200-Level, 300-Level or 400-Level CLAS Courses
- 200-Level, 300-Level or 400-Level ECON Courses
- 200-Level, 300-Level or 400-Level ENG Courses
- 200-Level, 300-Level or 400-Level HIST Courses
- 200-Level, 300-Level or 400-Level INDG Courses
- 200-Level, 300-Level or 400-Level PHIL Courses
- 200-Level, 300-Level or 400-Level POLS Courses
- 200-Level, 300-Level or 400-Level PSY Courses
- 200-Level, 300-Level or 400-Level RLST Courses
- 200-Level, 300-Level or 400-Level SOC Courses
- 200-Level, 300-Level or 400-Level WGST Courses
- GEOG Select 200, 300, or 400 Level
- GEOG 130.3
- GEOG 202.3
- GEOG 204.3
- GEOG 208.3
- GEOG 240.3
- GEOG 280.3
  
- Exception: **ECON 204.6** cannot be used to meet the Complementary Studies, Senior Humanities or Social Science elective requirements of the program.
- Exception: **PSY 233.3** cannot be used to meet the Complementary Studies, Senior Humanities or Social Science elective requirements of the program.
- Exception: **PHIL 241.3** cannot be used to meet the Senior Humanities or Social Science elective requirements of the program.
- Exception: **SOC 225.3** cannot be used to meet the Complementary Studies, Senior Humanities or Social Science elective requirements of the program.
- The following Engineering courses will also satisfy the Humanities/Social Science elective requirement: **RCM 400.3, RCM 401.3, RCM 402.3, RCM 403.3, RCM 404.3, RCM 405.3, RCM 406.3, RCM 407.3, RCM 408.3, RCM 409.3, and RCM 495.3.**
  
- Exception: **ECON 204.6** cannot be used to meet the Complementary Studies, Senior Humanities or Social Science elective requirements of the program.
- Exception: **PSY 233.3** cannot be used to meet the Complementary Studies, Senior Humanities or Social Science elective requirements of the program.
- Exception: **PHIL 241.3** cannot be used to meet the Senior Humanities or Social Science elective requirements of the program.
- Exception: **SOC 225.3** cannot be used to meet the Complementary Studies, Senior Humanities or Social Science elective requirements of the program.
- The following Engineering courses will also satisfy the Humanities/Social Science elective requirement: **RCM 400.3, RCM 401.3, RCM 402.3, RCM 403.3, RCM 404.3, RCM 405.3, RCM 406.3, RCM 407.3, RCM 408.3, RCM 409.3, and RCM 495.3.**

courses are listed below.

#### New Course Proposals:

##### GE 495.6: Technological Innovation Capstone Design Project (3L)

This course is a 4th year engineering design capstone experience. What makes it distinct from other disciplinary 495 capstone courses is that the students in GE 495.6 identify and develop their own design problems. They can also form multidisciplinary teams in order to tackle their design problems. Students will identify and characterize a design problem, show that it is valid, and then proceed to design a solution to the design problem using engineering design methods. This course is for those that seek a more entrepreneurial design experience.

Prerequisites: Successful completion of the program core of the first three years of your engineering program.

##### GE 496.3: Technological Innovation Design Project (3L)

This course is a 4th year engineering design elective experience. What makes it distinct from other disciplinary design elective courses is that the students in GE 496.3 identify and develop their own design problems, or they help multidisciplinary design groups that are doing so. Students will identify and characterize a design problem, show that it is valid, and then proceed to design a solution to the design problem using engineering design methods or they will assist a design team of students from one or more other disciplines in the area of mechanical design. This course is for those that seek a more entrepreneurial design experience.

Prerequisite(s): Successful completion of the program core of the first three years of your engineering program.

#### Course Modification For Information:

Relabel ENVE 481.3 to ENVE 381.3 The number better reflects the level of content in the course.

##### **ENVE 481.3-381.3 — 2(3L-3P alt weeks)**

Sustainability and Environmental Assessment

A study of the principles of sustainable development and the process of environmental impact assessment. Case studies are used to illustrate the EIA process in engineering design of environmental control measures. Concepts of integrated resource management are analyzed as the basis for making linkages between protecting the environment, economic development and public participation.

**Prerequisite(s):** 90 credit units from the institution.

**Note:** Students with credit for ABE 481 or BLE 481 or ENVE 481.3 will not receive credit for this course.

Contact: Danielle Gaudet  
(danielle.gaudet@usask.ca)

### College of Graduate Studies and Research (CGSR)

The curricular changes listed below have been approved by the College of Graduate Studies and Research and are submitted to the University Course Challenge for approval.

### University Course Challenge – NOV 2016

#### Course Proposal:

#### **CHEP 818.3: Advanced Qualitative Health Research Methods in Population and Public Health**

This advanced course considers the perspective of qualitative health research as a distinct discipline, with methods that have been developed or adapted for this orientation. Students will work with one qualitative methodology of their choice throughout the term to consider its location in population and public health research.

Prerequisite: ERES 845, PUBH 846, JSGS 851, NURS 893, PSY 809, or permission of the instructor.

Instructor: Sylvia Abonyi, PhD

Rationale: There are a few graduate level introductory qualitative research methods classes offered across campus. These are offered in JSGS, Nursing, Education, and sometimes Psychology or Sociology. Some Departments offer an advanced qualitative research class in specific methodologies, such as graduate level ethnography in the Department of Archaeology and Anthropology. There are no advanced qualitative health research methods classes available to graduate students. There has been increasing demand for such a class as graduate students in population and public health working on thesis research proposals that are using a qualitative approach request opportunities to develop depth in a particular methodological orientation. The proposed course, CHEP818 will provide this opportunity using a flexible approach that allows students to identify and work with the approach most relevant to their programs of study. Enrolment will be capped at 10 to facilitate the level of interaction with the instructor and fellow students required to support students in their exploration of a specific methodology.

Approved by CGSR on November 8, 2016

#### Course Modification:

**POLS 461.3** —Topics in International Studies and **POLS 867.3** —Topics in International Relations are being made mutually exclusive because they contain significant overlapping content.

#### For Information:

#### Program Modification:

#### MPAcc Admission Requirements

- a four-year ~~honours~~ degree, or equivalent, from a recognized college or university ~~in an academic discipline relevant to the proposed field of study~~
- a cumulative weighted average of at least a ~~75~~70% (U of S grade system equivalent) in the last two years of study (ie. 60 credit units)
- Language Proficiency Requirements: Proof of English proficiency may be required for international applicants and for applicants whose first language is not English. See the College of Graduate Studies and Research Academic Information and Policies in this Catalogue for more information

Contact: Kelly Clement ([Kelly.clement@usask.ca](mailto:Kelly.clement@usask.ca))

- ☐ Adequate preparation in Canadian Accounting principles as demonstrated by successful completion of the appropriate university level prerequisites courses as designated by the Canadian Institute of Chartered Professional Accountants for entrance into their Professional Education Program.
- ☐ ~~adequate preparation in Canadian Accounting, including the following undergraduate courses: Intermediate Accounting (assets and liabilities), Advanced Accounting (theory or consolidations and equity interests), Management and cost accounting, Tax (personal or corporate), and Assurance.~~

Rationale: To correct a Catalogue entry error that occurred in 2005-6. The above changes reflect the originally-approved requirements.

**AREC 820.3 — 2(3L)**

**Agricultural Production Economics Applied Microeconomic Theory**

A study of the application of economic theory to production economics and consumer demand systems. The course links static micro economic theory to the behavior of economic systems. This course includes a survey on the choice of functional form, the application of duality in demand theory and the use of Bayesian econometrics to impose inequality restrictions in system estimation. The course also examines several aspects of technological change and dynamic problems involving risk and uncertainty.

**Formerly:** BPBE 820.

**Permission of instructor required.**

**Note:** Students with credit for AGECE 820 or BPBE 820 may not take this course for credit.

Rationale: To be more descriptive of the disciplinary field. Approved by CGSR November 8, 2016.

Contact: Kelly Clement ([Kelly.clement@usask.ca](mailto:Kelly.clement@usask.ca))

## College of Nursing – November 2016 University Course Challenge

Previously the College of Nursing accepted PHPY 304.3 + PHPY 305.3 as an equivalency to PHAR 250 as long as the minimum weighted average of the courses was 60% and the courses were less than 5 years old from admission. The PHPY 304 and 305 course outlines were reviewed October 24, 2016 by the PHAR 250 instructor and were deemed to no longer be equivalent for the following reasons:

- Lack of ‘nursing implications’ in 304+305, which makes the connection between mechanisms of action, adverse effects, and monitoring parameters important for nurses
- Lack of evidence displaying the connection between mechanisms of action of drugs to the pathophysiology of specific conditions
- Content that is included in PHAR 250, but not in 304+305; namely Canadian regulation and governance, nomenclature and classification of drugs; conditions such as anemia, common cold, constipation, diarrhea, inflammatory bowel disease, kidney disease, skin conditions, eye conditions, ear conditions; drug classes such as muscle relaxants/antispasmodics, biologics; and considerations for special populations such as pregnancy and lactation, pediatrics, and geriatrics

### Program Clarification:

#### B.S.N. and PDBSN

#### Year 2 of BSN and Year 1 of PDBSN:

### Term 2 (15 credit units)

- [PHAR 250.3](#)\*
- [PHSI 208.6](#) (over Term 1 and 2)\*\*
- [NURS 201.3](#)
- [NURS 203.3](#)
- [NURS 220.3](#)
- \*Students who have taken other courses that meet the requirement for [PHAR 250.3](#) must have a minimum weighted average of 60% and the course(s) must be less than 5 years old from the time of admission.
- Please note: the [PHAR 250.3](#) requirement can be met by the following course combination: [PHPY 304.3](#) and [PHPY 305.3](#)**
- \*\*The [PHSI 208.6](#) requirement can be met by the following course or course combinations: [PHSI 208.6](#); [HSC 208.6](#); [PHPY 302.3](#) and [PHPY 303.3](#); [BIOL 317.3](#) and [BIOL 318.3](#); or nine credit units in [ACB 221.3](#) + [KIN 225.3](#) + [KIN 226.3](#); [BIOL 224.3](#)/[BMSC 224.3](#) + [PHPY 302.3](#) + [ACB 221.3](#); [BIOL 224.3](#)/[BMSC 224.3](#) + [PHPY 303.3](#) + [ACB 221.3](#); [BIOL 224.3](#)/[BMSC 224.3](#) + [PHPY 303.3](#) + [ACB 310.3](#); [BIOL 224.3](#)/[BMSC 224.3](#) + [PHPY 302.3](#) + [ACB 310.3](#).

**Contact:** Rachelle Smith (rachelle.smith@usask.ca)

## College of Pharmacy & Nutrition: November, 2016 University Course Challenge

The Doctor of Pharmacy (Pharm.D.) degree program was approved by University Council on December 17, 2015, to be offered beginning September, 2017. Since that time, minor revisions and corrections to the curriculum have been made by the college. These revisions were approved by the College of Pharmacy & Nutrition Faculty Council on November 10, 2016. They have been noted in red below and are now being submitted to University Course Challenge for approval, as follows:

### Doctor of Pharmacy (Pharm.D.) Program (17~~4~~2 credit units)

#### Admission Requirements:

Please visit the explore website for admission requirements.

#### Program Requirements

##### Year 1 (49 credit units)

###### Term 1

- PHAR 190.0: Introduction to the College/Program
- PHAR 121.3: Foundational Sciences 1: Foundational Pathophysiology & Pharmacology
- PHAR 122.3: Foundational Sciences 2: Medicinal Chemistry and Physical Pharmacy
- ~~PHAR 151.1: Pharmacotherapy: Foundations and general medicine~~
- PHAR ~~153.3~~ 153.4: Self Care I: Non-prescription pharmaceuticals and supplies
- PHAR 110.3: Introduction to Pharmacy and the Health Care System
- PHAR 162.3: Pharmacy Practice 1: The Patient Care Process
- PHAR 170.3: Pharmacy Skills Development 1
- PHAR 181.1: Introductory SPEP 1
- PHAR 183.1: Service Learning 1
- PHAR 191.1: IPE

###### Term 2

- PHAR 123.3 Foundational Sciences 3: Foundational Pathophysiology & Pharmacology 2
- PHAR 124.3 Foundational Sciences 4: Introduction to Pharmaceutics
- PHAR 152.6 Pharmacotherapeutics 1
- PHAR 154.3: Self Care II: Non-prescription Pharmaceuticals and supplies
- PHAR 112.1: Pharmacy Law and Introduction to Ethics
- PHAR 111.1: Foundations for Practice: Pharmacy Mathematics & Calculations
- PHAR 171.3: Pharmacy Skills Development 2
- PHAR 182.1: Introductory SPEP 2
- PHAR 184.1: Service Learning 2
- PHAR 192.1: IPE activities

#### Spring and Summer Terms

- PHAR 185.4

##### Year 2 (46 credit units)

###### Term 1

- PHAR 290.0: Introduction to year 2

- PHAR 224.3: Science of Pharmacotherapy 1: Pharmaceutics and Pharmaceutical Biotechnology
- PHAR 226.3: Foundational Sciences 5: Pharmacokinetics
- PHAR 253.6: Pharmacotherapeutics
- PHAR 271.3: Evidence Based Medicine
- PHAR 262.1: Pharmacy Practice 2
- PHAR 272.3: Pharmacy Skills Development 3
- PHAR 281.1: SPEP 4
- PHAR 291.1: IPE activities

#### **Term 2**

- PHAR 225.3: Science of Pharmacotherapy 2: Clinical Applications
- 3 credit units of electives, as approved by the College of Pharmacy & Nutrition
- PHAR 255.6: Pharmacotherapeutics 3
- PHAR 213.3: Management 1
- PHAR 263.1: Pharmacy Practice 3
- PHAR 273.3: Pharmacy Skills Development 4
- PHAR 282.1: SPEP 5
- PHAR 292.1: IPE activities

#### **Spring and Summer Terms**

- PHAR 283.4 Introductory SPEP: Hospital Pharmacy Practice Experience

#### **Year 3 (42 credit units)**

##### **Term 1**

- PHAR 390.0: Introduction to year 3
- PHAR 324.3: Science of Pharmacotherapy 3: Toxicology
- PHAR 358.6: Pharmacotherapeutics 5
- PHAR 314.3: Management 2/Issues in Health Care and Pharmacy
- PHAR 367.1: Pharmacy Practice 5
- PHAR 374.3: Pharmacy Skills Development 5
- 3 credit units of electives, as approved by the College of Pharmacy & Nutrition
- PHAR 384.1: SPEP 7
- PHAR 391.3: IPE activities

##### **Term 2**

- PHAR 395.3: Preparing for Patient Care/Complex cases (Capstone)
- PHAR 359.6: Pharmacotherapeutics 6
- PHAR 315.3: Issues in Health Care and Pharmacy Practice
- PHAR 368.1: Pharmacy Practice 6
- PHAR 375.3: Pharmacy Skills Development
- 3 credit units of electives, as approved by the College of Pharmacy & Nutrition
- PHAR 385.1: SPEP 8
- PHAR 392.1: IPE activities

#### **Year 4 (35 credit units)**

- PHAR 490.0: Introduction to Year 4
- PHAR 481.8: Advanced Practice Experience 1: Acute Care (Hospital) Experience (8 weeks)
- PHAR 482.8: Advanced Practice Experience 2: Community Pharmacy Experience (8 weeks)
- PHAR 483.8: Advanced Practice Experience 3: Other Direct Patient Care Experience (8 weeks)
- PHAR 484.8: Advanced Practice Experience 4: Elective Practice Experience (8 weeks) (or both PHAR 485.4 and 486.4; 2 x 4 weeks))
- PHAR 487.1: Integrating Seminar
- PHAR 488.1: Integrating Seminar
- PHAR 489.1: Integrating Seminar

**Rationale:** The above changes reflect an error correction in the overall credit unit count of the program; a relabeling of two courses in the originally-approved proposal; and a correction to the number of credit units allocated to PHAR 391.

#### **Course Revisions:**

Revisions to the new course proposals approved by University Council on December 17, 2015 (as presented in Appendix F of the December 17, 2015 Council Agenda) are noted below and are being submitted to University Course Challenge for approval:

- 1) **PHAR 151.1** "Pharmacotherapy: Foundations and General Medicine" and **PHAR 153.3** "Self-Care 1: Non-prescription Pharmaceuticals and Supplies" were originally approved as two separate courses, but are now being amalgamated into one, 4-credit unit course, as follows:

#### **PHAR 153.4: "Self-Care 1: Non-prescription Pharmaceuticals and Supplies"**

Students will explain and describe concepts of therapeutics with a focus on minor ailments, be it self-care or pharmacist-directed care. Students will differentiate between conditions amenable to self- or pharmacist-led care, identify options and care pathways for common OTC pharmaceuticals and supplies for use by patients, and discern when referral is warranted.

- 2) **Full course proposals for PHAR 191.1; 192.1; 291.1; 292.1; 391.1; 392.1: "IPE Activities" are as follows:**

Students will participate in problem-based learning tutorials, case studies, and other Interprofessional activities with students from other health science colleges. These activities are structured around the six competency domains required for Interprofessional collaboration: 1) Interprofessional communication; 2) patient/client/family/community-centred care; 3) role clarification; 4) team functioning 5) collaborative leadership and 6) Interprofessional conflict resolution.

Please note: the original Council-approved proposal incorrectly allocated 3 credit units to PHAR 391; it carries 1 credit unit.

- 3) **Full course proposal for PHAR 490.0: "Introduction to Year 4" is as follows:**

The focus is on orientation to practice, self-regulated learning, personal well-being and professional development. Prior to entering the final year, which is comprised of experiential education, students will review the elements and requirements for experiential education.



They will identify personal motivations, goals, and strategies for mastery learning and adopt practices that foster self-directed learning, self-evaluation, and reflection.

**Year Restrictions:**

Please note that students must progress through the Pharm.D. on a year-by-year basis. The ability to register in Year 2 courses requires completion of Year 1; students must complete Year 2 in order to register in all Year 3 courses, and so on. As such, restrictions will be noted on courses as follows:

100-level PHAR restriction: "Admission to the Pharm.D. program in the College of Pharmacy & Nutrition."

200-level PHAR restrictions: "Completion of Year 1 of the Pharm.D. Program."

300-level PHAR restrictions: "Completion of Year 2 of the Pharm.D. Program."

400-level PHAR restrictions: "Completion of Year 3 of the Pharm.D. Program."

**Course Modification**

The following change was approved by the college on October 24, 2016 and is now being submitted to University Course Challenge for approval:

**Removal of Equivalency, as follows:**

PHAR 250 "Pharmacology for Nursing" is no longer considered to be equivalent to:

PHPY 304 "Pharmacology I" and

PHPY 305 Pharmacology II"

**Rationale:** The PHPY 304 and 305 course outlines were reviewed October 24, 2016 by the PHAR 250 instructor and were deemed to no longer be equivalent for the following reasons:

- Lack of 'nursing implications' in 304+305, which makes the connection between mechanisms of action, adverse effects, and monitoring parameters important for nurses
- Lack of evidence displaying the connection between mechanisms of action of drugs to the pathophysiology of specific conditions
- Content that is included in PHAR 250, but not in 304+305; namely Canadian regulation and governance, nomenclature and classification of drugs; conditions such as anemia, common cold, constipation, diarrhea, inflammatory bowel disease, kidney disease, skin conditions, eye conditions, ear conditions; drug classes such as muscle relaxants/antispasmodics, biologics; and considerations for special populations such as pregnancy and lactation, pediatrics, and geriatrics

Contact: Yvonne Shevchuk (yvonne.shevchuk@usask.ca)

### **Items for Information**

#### **College of Arts & Science:**

A new prerequisite for EP 440 was approved at the October, 2016 University Course Challenge. The complete details of the new prerequisite are highlighted in yellow, as follows:

#### **EP 440.3 Space Systems Design**

Prerequisite change:

Old prerequisites: EE 321.3 (formerly EP 313.3) or ME 313.3

New prerequisites: 12 credit units 300-level engineering or PHYS courses

(12 credit units from any combination of the following: 300-level CHE, CE, CMPT, EE, EP, ENVE, GEOE, ME, PHYS courses)

#### **College of Engineering:**

To clarify the College of Engineering submission to the October, 2016 University Course Challenge submission, the following editorial changes will be made:

RCM 410.3 should be added to the ~~following programs~~ following lists: ~~in the College of Engineering programs:~~

- ~~Electives List in the~~ Certificate in Professional Communication
- Senior Humanities/Social Science Elective List ~~in all programs~~ programs offered by the College of Engineering that use this list
- Complementary Studies List ~~in all programs~~ programs offered by the College of Engineering that use this list

## **Warrington, Seanine**

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**From:** Warrington, Seanine  
**Sent:** Wednesday, November 30, 2016 4:01 PM  
**To:** Piercy, Jolana (jolana.piercy@usask.ca); Mulligan, Kelly; Pederson, Sherry; Parohl, Vicky; Gaudet, Danielle; Schwalm, Irene; Clement, Kelly; Wagner, Keeran; Kimber, Pam; Smith, Rachelle; Favreau, Diane; Links, Paige; Dahl, Alexis; Zagiel, Eileen; Beever, Rob; Mahoney, Noreen; 'vpac\_assocdeans@usask.ca'; 'vpac\_asstdeans@usask.ca'; 'vpac\_deptheads@usask.ca'; 'vpac\_deans@usask.ca'; 'council\_acpro@usask.ca'; Van Dyck, Arvelle; Eccleston, Andrea; Morrison, Tammy; Brown, Jill; Gauthier, Karen; Blizzard, Robert  
**Cc:** Murza, Lynette; Kyrejto, Melissa (melissa.kyrejto@usask.ca); Storey, Amanda; Wells, Katelyn; Beever, Rob  
**Subject:** University Course Challenge Posting - November, 2016

Good afternoon,

This email will confirm that one challenge was made to the following prerequisite change proposal in this UCC:

**PLSC 401.3 — 1(3L-3P)**

**Sustainable Crop Production**

Components of sustainable crop production systems will be examined from an ecological perspective. Students will evaluate the sustainability of cropping systems and develop crop production systems with greater ecological and economic sustainability. Laboratories will teach techniques used in crop scouting and diagnostics.

Prerequisite(s): ~~PLSC 335, SLSC 312~~ and Successful completion of 75 credit units of university course work.

The colleges involved have resolved the challenge; therefore the prerequisite will be modified as follows:

**PLSC 401.3 — 1(3L-3P)**

**Sustainable Crop Production**

Components of sustainable crop production systems will be examined from an ecological perspective. Students will evaluate the sustainability of cropping systems and develop crop production systems with greater ecological and economic sustainability. Laboratories will teach techniques used in crop scouting and diagnostics.

Prerequisite(s): ~~PLSC 335, SLSC 312~~ and successful completion of 75 credit units of university course work.

**The rest of the curricular change proposals in the November, 2016 University Course Challenge are now officially approved.**

Please note that the deadline to submit changes for the December, 2016 UCC posting is **Monday, December 12th, 2016.**

Thank you,

Seanine

Seanine Warrington  
Coordinator of Academic Programs & Catalogue  
Registrarial Services  
Student and Enrolment Services Division  
Ph: (306) 966-1874