



Academic Programs Committee of Council

University Course Challenge

Scheduled posting: August, 2019

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 curricular changes which affect other colleges.

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

College of Agriculture and Bioresources
College of Arts and Science
College of Graduate and Postdoctoral Studies

Approval: Date of circulation: August 15, 2019
 Date of effective approval if no challenge received: August 30, 2019

Next scheduled posting:

The next scheduled posting will be September 12, 2019, with a submission deadline of **September 10, 2019**. Urgent items can be posted on request.

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

College of Agriculture and Bioresources, Submission to August 2019 Course Challenge

The following curricular revision was approved by the College of Agriculture & Bioresources Undergraduate Affairs Committee on June 25, 2019 and is being submitted to University Course Challenge for information:

Changes to Course Description and Prerequisites

FABS 362.3: Functional Foods and Nutraceuticals

~~Explores aspects of nutraceuticals and functional foods derived from plant, animal and microbial origins. Global regulatory issues including efficacy and safety, health claims, value-added food production and the marketing challenges will be presented.~~ Foods contain compounds that not only supply us with energy but also help us develop and maintain health. Functional foods are defined as those that contain compounds with health promoting properties. Nutraceuticals are naturally occurring compounds in foods that have health-promoting properties or can be purified from foods and delivered as a supplement. The aim of this course is to discuss several classes of functional foods and nutraceuticals and identify the specific compounds that have health promoting properties. Discussion will also focus on the structure-function/dynamic-mechanisms relationship with both human and animal systems leading to the observed benefits.

Weekly hours: 3 Lecture hours

Prerequisite(s): ~~Successful completion of 60 credit units of university-level courses FABS 212.3 or BMSC 210.3~~

Note: Offered in alternate years. Students with credit for FAMS 362 will not receive credit for FABS 362

Rationale: These revisions reflect changes to the course content that have developed over time.

AREC 251.3: Introduction to Agricultural Policy

Government policy affects our lives on a daily basis, from the patenting of genes and plants to the labeling of genetically modified foods. Increasingly, government policy is affecting agriculture, farming and food. Current topics for discussion include chemical use, food security and sustainability.

Weekly hours: 3 Lecture hours

Prerequisite(s): ~~ECON 111 and successful completion of 30 credit units of university-level courses or permission of the instructor.~~ Successful completion of 30 credit units of university-level courses, including ECON 111.3, or permission of the instructor.

Note: Students with credit for BPBE 76 or BPBE 251 will not receive credit for this course.

Formerly: Formerly BPBE 251.

Rationale: This change clarifies the prerequisite to bring it in-line with the department's intention

New Course Proposals

Rationale:

A knowledge of feed ingredients, diet formulation and processing technology is an integral part of livestock production and our students require training in this area. However, the existing ANSC 340.3 “Feeds Technology and Swine Production” course does not allot enough time towards either feed technology or swine production to give students the depth of understanding they require to work effectively within the field. Two new courses, ANSC 316.3 and ANSC 480.3 will provide students with more in-depth knowledge on feed ingredients, feed formation and processing, as well as pork production, breeding, and management.

ANSC 316.3 Feed Technology and Swine Production 1(3L-2P)

This course explores the nutritional and functional properties of feed ingredients, diet formulation, feed processing technologies, regulations, quality control, feed mill management and specialty processing.

Prerequisite(s): ANSC 212.3 and BMSC 230.3

ANSC 480.3 Swine Production and Management 2(3L-2P)

This course covers the basics of swine production and management, with a focus on current practices in North America. Emphasis will be on production techniques involved in intensive pork production and the underlying scientific principles. Lectures include the role of pork production in the global, Canadian and Saskatchewan economies, types of production systems, breeding, management and feeding, diseases, behaviour and challenges facing modern pork production.

Prerequisite(s): ANSC 315.3; ANSC 340.3 is recommended

Contact: Amie Shirkie

University Course Challenge – August 2019

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)

Mathematics

Correction of notes and options in the Four-year and Three-year programs to align with program revisions approved in the December 2018 UCC.

Bachelor of Science Four-year (B.Sc. Four-year)

C6 Major Requirement (36 credit units)

- [MATH 163.3](#) Introduction to Mathematical Reasoning
- [MATH 164.3](#) Introduction to Linear Algebra (formerly [MATH 264.3](#)) or [MATH 266.3](#) Linear Algebra II
- [MATH 225.3](#) Intermediate Calculus I or [MATH 276.3](#) Vector Calculus I (Students contemplating Honours should choose MATH 276)
- [STAT 241.3](#) Probability Theory

Choose the remaining **24 credit units** from the following, using the following rules:

Choose at least 12 credit units that are at the 300-level or higher. In total, at least 24 of the ~~30~~ **36** senior credit units required for the major must be designated MATH. Courses in mathematics and statistics at the 200-level other than those listed in this section are not acceptable as part of a major in mathematics.

- 300-Level or 400-Level MATH Courses
- 300-Level or 400-Level STAT Courses
- [MATH 211.3](#) Numerical Analysis I (Students contemplating Honours should take this course)
- [MATH 226.3](#) Intermediate Calculus II
- [MATH 238.3](#) Introduction to Differential Equations (Students contemplating Honours should take this course)
- [MATH 258.3](#) Euclidean Geometry
- [MATH 266.3](#) Linear Algebra II
- [MATH 277.3](#) Vector Calculus II
- [STAT 242.3](#) Statistical Theory and Methodology

Bachelor of Science Three-year (B.Sc. Three-year)

C6 Major Requirement (24 credit units)

- [MATH 163.3](#) Introduction to Mathematical Reasoning
- [MATH 164.3](#) Introduction to Linear Algebra (formerly [MATH 264.3](#)) or [MATH 266.3](#) Linear Algebra II
- [MATH 225.3](#) Intermediate Calculus I or [MATH 276.3](#) Vector Calculus I (Students contemplating Honours should choose MATH 276)
- [STAT 241.3](#) Probability Theory

Choose the remaining **12 credit units** from the following, using the following rules:

At least 6 credit units must be at the 300-level or higher. ~~In total, at least 15 of the 18 senior credit units required for the major must be designated MATH.~~ Courses in mathematics ~~and statistics~~ at the 200-level other than those listed in this section are not acceptable as part of a major in mathematics.

Students contemplating Honours should take MATH 211, MATH 238, and MATH 277.

- 300-Level or 400-Level MATH Courses
- ~~300-Level or 400-Level STAT Courses~~
- [MATH 211.3](#) Numerical Analysis I (Students contemplating Honours should take this course)
- [MATH 226.3](#) Intermediate Calculus II
- [MATH 238.3](#) Introduction to Differential Equations (Students contemplating Honours should take this course)
- [MATH 258.3](#) Euclidean Geometry
- [MATH 266.3](#) Linear Algebra II
- [MATH 277.3](#) Vector Calculus II (Students contemplating Honours should take this course)
- ~~[STAT 242.3](#) Statistical Theory and Methodology~~

College of Graduate and Postdoctoral Studies, August 2019 University Course Challenge Proposal

The following changes have been approved by the College of Graduate and Postdoctoral Studies and are now being submitted for approval:

New Course Proposals

INDG 885.3: Global Indigenous Health

Develop students' understandings of global Indigenous health through a critical Indigenist health lens. Health will be discussed in terms of mind, body, spirit and relationship with land, sky, air, animals/insects, and water.

Instructor: Michelle Johnson-Jennings, PhD

Rationale: This course will present Indigenous health from a transdisciplinary approach through a decolonize and indigenist lens. Many students have voiced interest in such a course.

CHEP 808.3: Complex Survey Data Analysis

This course is designed to introduce (i) methods for statistical modeling of cross-sectional and longitudinal complex surveys data sets, with an emphasis on the impact of weighting, stratification and clustering on parameter estimates and their standard errors and (ii) variance estimation methods such as Taylor linearization, bootstrap, jackknife, and balanced repeated replication. Procedures to handle missing data in complex surveys will be discussed.

Prerequisite: CHEP 805, or equivalent, or permission of the instructor

Instructor: Punam Pahwa, PhD

Rationale: A need for this course is based on the demand by students that has arisen in the last few years. The Statistics Canada Research Data Centre is at the University of Saskatchewan; however, no other unit offers a course that covers the topics in this new course proposal. Variations of this course have been offered as special topics courses.

For Information

Addition of Direct-Entry and Transfer Admission Routes to the Ph.D. in Applied Economics

Under University-Council delegated authority, the College of Graduate and Postdoctoral Studies has granted final approval of the following Ph.D. admission routes for the Applied Economics field of study. They are being reported here for information, as follows:

Applied Economics

Transfer from Master's to PhD

Students must maintain continuous registration in APEC 996.0.

- GPS 960.0
- GPS 961.0 if research involves human subjects
- GPS 962.0 if research involves animal subjects
- minimum of 42 credit units, including:
- 6 credit units in microeconomics from ECON 800.3, ECON 873.3, AREC 842.3, ECON 850.3, or another course approved by the graduate committee

- 6 credit units in econometrics from ECON 808.3, ECON 809.3, or another course approved by the graduate committee
- 3 credit units in macroeconomics from ECON 801.3, ECON 874.3, or another course approved by the graduate committee
- 27 credit units approved by the admissions and program committee
- APEC 990.0
- APEC 996.0

Doctor of Philosophy (Ph.D.) - Direct Entry

Admission Requirements

- With the recommendation of the unit, direct entry Ph.D. admission is available to exceptionally strong students, who show great promise in terms of academic accomplishments and potential for research.
- a four-year honours, or equivalent, from a recognized university in a relevant academic discipline in an academic discipline relevant to the proposed field of study
- a cumulative weighted average of at least a 80% (U of S grade system equivalent) in the last two years of full-time undergraduate study (i.e. 60 credit units of course work)
- 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 and Postdoctoral Studies Academic Information and Policies in this Catalogue for more information

Degree Requirements

Students must maintain continuous registration in the 996 course.

- At least 9 credit units of course work at the graduate level must be successfully completed in the first year of the program.
- Within the first year of the program, successfully complete a Ph.D. Qualifying Examination that is at least as rigorous as the defence for a Master's thesis in the program area.
- GPS 960.0
- GPS 961.0 if research involves human subjects
- GPS 962.0 if research involves animal subjects
- minimum of 42 credit units, including:
 - 6 credit units in microeconomics from ECON 800.3, ECON 873.3, AREC 842.3, ECON 850.3, or another course approved by the graduate committee
 - 6 credit units in econometrics from ECON 808.3, ECON 809.3, or another course approved by the graduate committee
 - 3 credit units in macroeconomics from ECON 801.3, ECON 874.3, or another course approved by the graduate committee
 - 27 credit units approved by the admissions and program committee
 - APEC 990.0
 - APEC 996.0
- Pass a comprehensive examination, after completing the required course work, and prior to focusing on their research and doctoral thesis.
- Write and successfully defend a thesis based on original investigation.

Course Modification

GPS 989.0: ~~Philosophy and Practice of~~ Introduction to University Teaching

~~Designed for graduate students with some formal teaching preparation or experience. Students develop their philosophy of teaching and are introduced to creative methods, practical tools and advice that may be applied beyond the university classroom.~~

Designed for graduate students preparing to teach. Students are introduced to instructional approaches and way to build the classroom environment that may be applied beyond the university classroom.

Formerly: GSR 989

~~Prerequisite(s): GPS 979 or experience teaching and permission of the instructor.~~

Note: Students with credit for GSR 989 will not receive credit for this course.

Contact: Kelly Clement