



Academic Programs Committee of Council

University Course Challenge

Scheduled posting: August 2022

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 Arts and Science
College of Graduate and Postdoctoral Studies

Approval: Date of circulation: August 15, 2022
 Date of effective approval if no challenge received: August 31, 2022

Next scheduled posting:

The next scheduled posting will be September 15, 2022, with a submission deadline of **September 13, 2022**. 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 Governance Office.

University Course Challenge – August 2022

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)

Biomedical Neuroscience

Minor course revisions – Correction from December 2021 UCC:

The initial interpretation of the proposed change to the prerequisite was incorrect. The amended version below aligns with the department's requirements to register in this course.

NEUR 334.3 Introductory Neuroanatomy

Prerequisite change:

Old prerequisite(s): ACB 310.3; or NEUR 301.3 and NEUR 350.3.

~~New prerequisite(s): ACB 310.3 or NEUR 301.3.~~

~~New pre- or co-requisite(s): NEUR 350.3~~

New prerequisite(s): ACB 310.3; CPPS 310.3; or NEUR 301.3 and NEUR 350.3 (NEUR 350 can be taken as a pre- or co-requisite).

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Environment and Society

Minor program revisions:

Bachelor of Arts and Science Honours and Four-year in Environment and Society

Correction from May 2022 UCC: 3 courses were missed from a list of restricted electives in the Honours Option C: Climate Change. They correctly appeared in the Four-year level for this option.

Bachelor of Arts and Science Honours (B.A. & Sc. Honours) - Environment & Society – Climate Change

J4 Major Requirement (78 credit units)

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Option C: Climate Change (48 credit units)

Note: Some courses may require prerequisites that are not listed among the required courses.

- **GEOG 233.3** Introduction to Weather and Climate
- **GEOG 333.3** Global Climate Change
- **GEOG 465.3** Environment and Health in Indigenous Communities
- **GEOG 491.3** Honours Thesis in Environment and Planning

Choose **21 credit units** from the following, with at least 3 credit units at the 300-level or above:

- **BIOL 228.3** An Introduction to Ecology and Ecosystems
- **BIOL 373.3** Community Ecology
- **BIOL 412.3** Limnology
- **GEOG 225.3** Hydrology of Canada

- [GEOG 235.3](#) Earth Processes and Natural Hazards A Canadian Perspective
- [GEOG 290.3](#) Field Methods and Laboratory Analysis
- [GEOG 325.3](#) River Systems
- [GEOG 328.3](#) Groundwater Hydrology
- [GEOG 335.3](#) Glacial Geomorphology
- [GEOG 351.3](#) Northern Environments
- [GEOG 390.3](#) Methods in Hydrometeorology
- [GEOG 427.3](#) Advanced Hydrology
- [GEOL 330.3](#) Climate History
- [GEOL 464.3](#) Geoscience of Green Energy
- [TOX 200.3](#) Poisons and Pollutants
- [TOX 301.3](#) Environmental Toxicology

Choose **15 credit units** from the following, with at least 3 credit units at the 300-level or above:

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Health Studies

Minor program revisions:

Bachelor of Arts and Science Honours and Four-year in Health Studies

Correction from May 2022 UCC: The instruction to add ART 250 to the program was a copy/paste error.

~~[Add ART 250.3 to the list of courses that can be counted in the program.](#)~~

Adjust the A1 science cluster requirements to remove BMSC 207, and correct note for NEUR 404.

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College of Graduate and Postdoctoral Studies, University Course Challenge – August 2022

The following new courses and curricular changes have been approved by the College of Graduate and Postdoctoral Studies and are now being submitted to University Course Challenge for approval.

Contact: Melissa Kyrejto (melissa.kyrejto@usask.ca)

Food and Bioproduct Sciences

Minor Program Modification:

Postgraduate Diploma (P.G.D.)

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Diploma Requirements

- GPS 960.0
- GPS 961.0
- GPS 962.0
- ~~FABS 801.3~~
- a minimum of ~~24~~24 credit units, at least 15 of which are at the 800-level

Rationale: In December 2021, a program revision was approved by the University Council for the FABS PGD program, where the minimum credit requirement was reduced from 30 to 24 credit units. That argument for this change was, in part, that 24 CU represents a full-time program in terms of workload. Given this reduction in CU requirements, a previously approved new course (FABS 801.3) which would have been taken by new students online over the summer before coming to USASK, is now no longer necessary (the rationale for FABS 801 was that it would reduce the classroom workload during term 1). Note that additional difficulties in offering this course in the summer term were encountered due to registration regulations. Accordingly, FABS 801 will be deleted as of a requirement of the PGD program going forward.

In addition, several of our 3rd and 4th-year undergraduate courses have been converted into hybrid delivery mode courses so that the PGD students will have more options to choose courses from. Since these courses have been offered twice as 898s, we would like to formalize them as regular graduate-level courses (APMC 825.3, APMC 852.3, FDSC 855.3, FDSC 871.3, and FDSC 845.3). The course FDSC 855 was developed under one of our NSERC CREATE programs to be offered by multi-university faculty members and would add great benefit to our PGD program students. Altogether, we request the consideration of removing FABS 801.3 and adding the above-mentioned courses as elective courses for the PGD program. The course syllabi and GSR 400 forms are attached with this proposal.

New Course(s):

APMC 825.3: Advanced Food Microbiology

This course provides a detailed examination of microorganisms and their relationship to the food supply and public safety. Theoretical coverage of how intrinsic and extrinsic factors, which govern microbial proliferation in foods, affect food spoilage, food preservation and disease. Laboratories (with permission) emphasize methods and techniques for isolating, enumerating, and identifying important food-borne microbes.

Prerequisite(s): FABS 212 or BMSC 210 or permission of the instructor.

Note(s): This course is a hybrid course with FABS 325, and this course cannot be taken for credit after previously taking FABS 325.

Instructor: Dr. Darren Korber

Rationale: The course provides an in-depth examination of the key organisms which are responsible for foodborne illnesses and spoilage of foods, as well as current events involving food safety. Traditional and molecular techniques for the detection of these organisms will also be given, along with industrial methods of food processing for ensuring supply of food safety. An introduction to food safety systems and HACCP will also be included. Students will regularly be engaged in current events that will include information from food safety news feeds, advocacy groups, and government notices organizations. The course delivers foundational and advanced content that includes: a historical overview of major advances in food preservation, safety and discovery; an overview of key bacteria, yeast, fungi and other agents known to cause illness; microbial ecology of foods; intrinsic and extrinsic factors that impact microbial survival, growth, and spoilage; characteristics of major microbial pathogens; food preservation; sanitation; major illness causing organisms; and new trends of relevance to the provision of safe food. The course will be an optional course for graduate students enrolled in either our unit's postgraduate diploma program, or either our Food Science or Applied Microbiology thesis-based graduate programs.

APMC 852: Advanced Quality Assurance and HACCP

This course covers principles of quality assurance and food safety systems as applied to the food industry. Theory and in-class workshops examine microbiological agents, food regulations, global standards and trade agreements, analytical methods, statistical quality control, sanitation, as well as implementation and auditing of Hazard Analysis Critical Control Point (HACCP) and quality assurance systems.

Prerequisite(s) or restriction(s): Permission from instructor.

Note(s): This course is a hybrid course with FABS 452, and this course cannot be taken for credit after previously taking FABS 452.

Instructor: Dr. Darren Korber

Rationale: The course provides an in-depth examination of HACCP and food safety systems that are either required or in common use by the food industry. Students undergo theoretical training, as well as scenario-based, group projects which are modeled after real-world teams that work collaboratively in the food sector. The course delivers foundational content in the area of food-borne illnesses, food outbreaks, regulation of food, international trade, food safety and quality systems, statistical process control, and conducting internal or external audits. The course will be an optional course for graduate students enrolled in either our unit's postgraduate diploma program, or either our Food Science or Applied Microbiology thesis-based graduate programs.

FDSC 845.3: Advanced Food Processing

The fundamental principles of common unit operations of food processing and preservation will be discussed, with emphasis on evaporation and drying, thermal processing, and refrigeration and freezing. The working principles of equipment utilized in these operations will be examined and the impacts of processing on the composition, quality and nutritive value of foods will be addressed. Current literature on recent advances in food processing technologies will be discussed.

Prerequisite(s) or restriction(s): FABS 110 or equivalent; or permission from the instructor.

Note(s): This course is a hybrid course with FABS 345, and this course cannot be taken for credit after previously taking FABS 345.

Instructor: Dr. Takuji Tanaka

Rationale: Food processing is a key components of food science field. The recent resurrection of postgraduate diploma program in Food and Bioproduct Sciences makes it necessary to offer this subject at the graduate level. Meanwhile due to the limitation of teaching stuff resources, this will be offered as a hybrid course with its undergraduate course (FABS345). The contents on the graduate level course asks more critical thinking and depth in the understanding of subject. The experiential learning component is also included in this course to give more depth in the postgraduate program study.

FDSC 855.3: Advanced Food Proteins II

This course provides an advanced understanding of protein and peptide nutrition, novel-processing technologies, flavour reduction strategies, bioactive peptides, sensory aspects, consumer behavior and supply chains. Emphasis will be placed on understanding underlying principles, mechanisms and applications of the aforementioned topics.

Prerequisite(s) or restriction(s): Permission from instructor.

Instructor: Dr. Michael Nickerson

Rationale: The course provides an in-depth examination of the plant protein ingredient sector, and builds off curriculum in FDSC 850.3 (Advanced Food Proteins). The course is a multi-instructor multi-university delivered course, covering topics such as amino acid nutrition, population/clinical nutrition, protein processing, extrusion, flavor reduction, consumer behavior and supply chains. The course is a requirement for an NSERC-funded CREATE project based in the Department of Food and Bioproduct Sciences.

FDSC 871: Biotechnology in Food Chain

Lectures will cover principles of science and technology relevant to biotechnology applications in the development of food products. Biotechnology becomes to take significant roles in food supply in last few decades. Some technologies are unfamiliar to the consumers and the new developments may result in unexpected adverse effects.

Prerequisite(s) or restriction(s): FABS211, FABS212 (or BMSC210), and BMSC200 or equivalents; or permission from the instructor

Note(s): This course is a hybrid course with FABS 371, and this course cannot be taken for credit after previously taking FABS 371.

Instructor: Dr. Takuji Tanaka

Rationale: Many new technologies are introduced in the food supply chain. Especially recent developments in genetic modification and use of new microbes give the concerns among consumers. This "magic" technology should be discussed in both benefits and negatives to properly use this technology without myth. The course will cover the basis of these technologies and discuss what are real

benefits and potential concerns. Considering the developments are widely spread without recognition by the consumers, we need to discuss the technology in food applications deeply.

Veterinary Medicine

New Course(s):

VSAC 837: Physiology and Pathophysiology

This course will allow resident graduate students to gain knowledge in physiology and pathophysiology of specific organ systems as it relates to medical imaging. The course serves to prepare residents both for American College of Veterinary Radiology (ACVR) qualifying and certifying examinations, as well as for clinical practice. Primary species for review in this course will be canine, feline, equine and bovine patients. Exotic species will be discussed to a lesser extent. Practical application will be emphasized.

Instructor: Dr. Sally Sukut

Rationale: Diagnostic imaging residents require this information to prepare for the American College of Veterinary Radiology (ACVR) qualifying and certifying examinations, as well as for clinical practice.

Items For Information

The following new courses and curricular changes have been approved by the College of Graduate and Postdoctoral Studies and are now being submitted to University Course Challenge for information.

Nursing

Course modification(s):

NURS 884

Current title: Advanced Health Assessment

Proposed title: Advanced Health Assessment & Diagnostic Reasoning I

Current description: This course builds on students' skills and knowledge in the conduct of comprehensive and focused health assessment across the life span. Lectures introduce concepts, frameworks, and techniques integral to advanced health assessment and diagnostic skills: and review of associated assessment finding related to common medical conditions. This class includes 16-hours of clinical as an introduction to the Nurse Practitioner role and the application of health assessment skills.

Proposed description: This course builds on students' knowledge and skills in the conduct of comprehensive and focused health assessment and diagnostic reasoning for clinical practice. Lectures introduce concepts, frameworks, and techniques integral to advanced health assessment and diagnostic reasoning related to common medical conditions across the life span.

NURS 879

Current title: Advanced Diagnostic Reasoning

Proposed title: Advanced Health Assessment & Diagnostic Reasoning II

Current description: Building on Advanced Health Assessment, this course develops the student's knowledge of diagnostic reasoning for clinical practice. Using the assessment process, students will develop and understanding of diagnostic test and procedures that will address the investigation of common medical conditions across the life span.

Proposed description: This course continues to build on students' knowledge and skills in the conduct of comprehensive and focused health assessment and diagnostic reasoning for clinical practice. Lectures introduce concepts, frameworks, and techniques integral to advanced health assessment and diagnostic reasoning related to common medical conditions across the life span.

Rationale: In NURS 884.3 Advanced Health Assessment, students review their health assessment knowledge and skills. Through a systems approach, the course builds on these skills towards the understanding of common medical conditions and begin to develop diagnostic reasoning skills toward identification of differential diagnoses. In many of the seminars, facilitation of case studies with the students about a common medical disorder are limited as the selection of diagnostic tests to confirm a potential diagnosis and plans of care are presented in NURS 879.3 Advanced Diagnostic Reasoning. This has created a situation where this leads to overlap in the course content between the courses – as there is no clear delineation of where a case study would end, and students consistently ask to continue cases to the point where the client encounter would be complete for the presenting condition in the clinical encounter.

The aim for combining the courses is to facilitate student learning using a system approach. The ability to combine the health assessment and diagnostic reasoning enables a more fulsome approach to common medical disorders, building diagnostic reasoning skills and approach to case presentations that resembles primary care clinical encounters.

Physical Therapy

Corrections to June UCC submission.

In the Module 5 mark-up, PTH 805.8 should be **PTH 806.8**. This was a typo.

Module V (8 weeks)

Four courses (14 credit units) building on physical therapy knowledge and skills required for assessment and management of clinical conditions, with a focus on neurological conditions.

- PTH 805.8 Neurology Assessment and Treatment
- PTH 877.2 Introduction to Applied Clinical Reasoning
- PTH 862.2 Evidence Based Practice II
- PTH 865.2 Professional Practice III

Module 7 should be 6 cu, not 18 cu. The 12 cu for PTH 880.12 are not completed until Module 9.

Module VII (12 weeks)

Two clinical education courses (~~186~~ credit units) consisting of practical experience in a Canadian health care facility.

- PTH 878.6 Clinical Practice III
- PTH 880.12 Clinical Practice IV (crosses into Module IX)

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Module IX (12 weeks)

Two clinical education courses (~~182~~ credit units) consisting of practical experience in a Canadian health care facility.

- PTH 880.12 Clinical Practice IV (6 credit units from Module VII)
- PTH 858.6 Clinical Practice V