Academic Programs Committee of Council

University Course Challenge

Scheduled posting: **August 2024**

Date of circulation: **August 15, 2024**

Date approval is effective if no challenge received: **August 31, 2024**

Curricular and program changes approved by University Course Challenge include additions and deletions of courses, lower levels of study and program options; straightforward program changes; and curricular changes which affect other colleges.

Included are submissions for information and approval from the following colleges and schools:

College of Dentistry
College of Engineering
College of Graduate and Postdoctoral Studies
College of Law

The next scheduled posting will be **September 16, 2024**, with a submission deadline of **September 12, 2024**. Urgent items can be posted on request.

Please direct challenges to both of the following: seanine.warrington@usask.ca in the Registrar's Office and danielle.rudulier@usask.ca in the Governance Office.

College of Dentistry – University Course Challenge (UCC) Submission, August 2024 - For Information

Some new courses and minor curricular revisions were approved through UCC for the Bachelor of Science in Dental Hygiene program in June 2024. The following associated program change was missed, so it is noted here in red:

The Bachelor of Science in Dental Hygiene [B.Sc. (DH)]

Program Requirements (104 credit units)

Students must successfully complete all courses in each year of the program to progress on to the next year and on to graduate.

Year 1 (44 credit units)

Term 1 (23 credit units)

- DEHY 101.2
- DEHY 102.3
- DEHY 103.3
- DEHY 104.3
- DEHY 105.3
- DEHY 106.3
- DEHY 108.3
- DEHY 107.3 ~~388.3~~

Term 2 (21 credit units)

……

Year 2 (30 credit units)

Year 3 (30 credit units)

College of Engineering - University Course Challenge Submission, August 2024

The following changes have been approved through the College of Engineering and are being submitted here for approval through the University Course Challenge.

First Year Engineering:

MOTION 1: To change the prerequisites for *GE 143.2 – Design II*
(effective officially for the 2025-2026 academic year) from the following:

- Prerequisite(s): GE 140.1 and
- Prerequisite(s) or Corequisite(s): GE 103.1 and GE 133.2

To the following:

- Prerequisite(s): GE 140.1 and
- Prerequisite(s) or Corequisite(s): GE 133.2

Rationale: The FY Team no longer believes this requirement is valuable or necessary, and it only needlessly complicates things for students.

MOTION 2: To change the prerequisite for *GE 172.1 – Engineering Programming* (or "*Matlab*")
(effective officially for the 2025-2026 academic year) from the following:

- Prerequisite(s) or Corequisite(s): GE 102.2 and MATH 133.4

To the following:

- Prerequisite(s) or Corequisite(s): MATH 133.4

Rationale: Again, the FY Team no longer believes this requirement is valuable or necessary, and it only needlessly complicates things for students.

Mechanical Engineering:

MOTION 3: That **EP 440.3** Space Systems Design be added to the list of **Design Electives** in the Mechanical Engineering program. This design elective can be taken either in Term 1 or in Term 2 (effective officially for the 2025-2026 academic year).
Rationale: Several students have taken EP 440.3 as one of their two technical electives in the past. This course may be of particular interest to those students looking for aerospace-related courses (along with ME 471 Aerodynamics, which is offered every second year). In reviewing the design content of this course, it would also be suitable as one of their two required design electives. According to the information in the most recent version of the accreditation spreadsheet the 15.8 Engineering Design AUs for EP 440 are the same as the current ME design elective with the lowest number of ED AUs (ME 493). Using our current ED AU counts, the number of AUs in this category for the new minimum path (a student taking both EP 440 and ME 493) would be 115% of the CEAB requirement for students who have taken the new first year program and 111% of the CEAB requirement for students who have taken the old first year program.

The Future Catalogue mark-up should reflect these changes as follows:

Mechanical Engineering

Bachelor of Science in Engineering (B.E.) - Mechanical Engineering (152 credit units)

- **Admissions**
- **Academic policies**

Year 1 (41-44 credit units)

All Engineering programs have a **common** first year.

Year 2 (36 credit units)

Fall Term

- **GE 210.3** Probability and Statistics
- **GE 213.3** Mechanics of Materials
- **MATH 223.3** Calculus III for Engineers
- **ME 214.3** Introduction to Materials and Manufacturing
- **ME 227.3** Thermodynamics I

Winter Term

- **MATH 224.3** Calculus IV for Engineers
- **ME 215.3** Fluid Mechanics I
- **ME 226.3** Mechanics III
- **ME 229.3** Introduction to Mechanical Engineering Design
- **RCM 200.3** Effective Professional Communication

Fall or Winter Term

- 3 credit units Junior Humanities or Social Science Elective
- 3 credit units Science Elective

Year 3 (36 credit units)

Fall Term

- **ME 313.3** Mechanics of Materials I
- **ME 321.3** Engineering Analysis II
- **ME 324.3** Engineering Materials
- **ME 327.3** Heat Transfer
- **ME 330.3** Manufacturing Processes

Winter Term

- **ME 314.3** Machine Design I
- **ME 323.3** Mechanics of Materials II
- **ME 328.3** Mechanical Engineering Laboratory I
- **ME 329.3** Collaborative Design and Manufacturing
- **ME 335.3** Fluid Mechanics II
- **ME 352.3** Engineering Analysis III

Fall Term or Winter Term

- **GE 348.3** Engineering Economics

Year 4 (36 credit units)

Fall Term

- **ME 417.3** Thermodynamics II
- **ME 418.3** Mechanical Engineering Laboratory II
- **ME 431.3** Control Systems

Winter Term

- **GE 449.3** Engineering in Society

Fall Term and Winter Term

Choose 6 credit units from the following:

- **ME 495.6** Industrial Design Project
- **GE 495.6** Technological Innovation Capstone Design Project (Department permission required)

Fall Term or Winter Term

- 12 credit units Technical and Design Electives (of which 6 credit units must be from the Design Elective list)
- 3 credit units Complementary Studies Elective
- 3 credit units Senior Humanities or Social Science Elective

Electives

Science Elective List

- **ASTR 213.3** Astronomical Photometry
- **ASTR 214.3** Astronomical Spectroscopy
- **BIOL 120.3** The Nature of Life
- **CHEM 221.3** Analytical Chemistry I
- **CHEM 231.3** Inorganic Chemistry I
- **CHEM 242.3** Thermodynamics and Kinetics
- **CHEM 250.3** Introduction to Organic Chemistry
- **EVSC 203.3** Sampling and Laboratory Analysis

- **EVSC 210.3** Environmental Physics
- **GEOG 120.3** Introduction to Global Environmental Systems
- **GEOL 121.3** Earth Processes
- **GEOL 224.3** Mineralogy
- **GEOL 245.3** Introduction to Sedimentary Rocks
- **GEOL 258.3** Structural Geology

Technical Electives

Department Technical Electives are offered in alternating calendar years, subject to minimum enrolment limits and staffing considerations. Consult the current Course Offerings to determine the availability of specific electives.

Term 1

- **GEOE 377.3** Fundamentals of Mining and Mineral Processing
- **GEOE 466.3** Geomechanics of Energy Production and Storage

Term 2

- **CHE 464.3** Petroleum Production Engineering
- **EE 471.3** Introduction to Micro and Nanotechnology
- **GEOE 380.3** Mine Ventilation
- **ME 460.3** Automation and Robotics in Manufacturing
- ME 461.3
- ME 463.3
- ME 472.3
- **ME 475.3** Introduction to Mechatronics
- **ME 477.3** Engineering Materials II
- **ME 478.3** Introduction to Fire Protection Engineering

Term 1 or Term 2

- **CHE 453.3** Corrosion Engineering
- ME 450.3
- **ME 462.3** Structure Texture and Properties of Engineering Materials
- **ME 464.3** Introduction to Composite Materials
- **ME 471.3** Introduction to Aerodynamics
- **ME 473.3** Introduction to Computational Fluid Dynamics
- **ME 476.3** Multiphase Flow and Heat Transfer
- **ME 488.3** Mechanical Engineering Research Project
- approved senior course(s) from science or Engineering

Design Electives

Design Electives are offered subject to minimum enrolment limits and staffing considerations. Consult the current Course Offerings to determine the availability of specific electives. Students must take a minimum of 6 credit units from the list of Design Electives.

Term 1

- **ME 496.3** Machine Design II

Term 2

- **ME 490.3** Design of Fluid Power Circuits
- **ME 492.3** Materials in Engineering Design

Term 1 and Term 2

- **GE 496.3** Technological Innovation Design Project
- ME 494.3

Term 1 or Term 2

- **ME 491.3** Thermal Systems Design
- **ME 493.3** Advanced Mechanical Design
- **ME 497.3** Acoustics and Vibrations in Design
- **EP 440.3 Space Systems Design**

University Course Challenge – August 2024
The curricular revisions listed below were approved through the Graduate Programs Committee of the College of Graduate and Postdoctoral Studies and are now submitted to the University Course Challenge for approval.

Contact: Chelsea Smith, CGPS Academic Affairs Specialist (chelsea.smith@usask.ca or gradprograms.academicaffairs@usask.ca)

VETERINARY BIOMEDICAL SCIENCES

New course proposal

VMBS 879.3 Essential skills for junior scientists
Catalogue description: This course is designed to provide new graduate students with the professional skill set associated with being a successful scientist. Through a combination of lectures, discussions, presentations and assignments, the students will learn about time management and productivity, the scientific method and scientific inference, ethics and biases in science and the peer-review and publication process. Students will develop their communication skills (written and oral) with a focus on audience targeting. Students will learn the foundations of interpersonal and managerial skills and the importance of self-sufficiency and independence to nurture success. Each student will draft a professional plan to prepare for the life beyond graduate school.
Prerequisite(s): Permission of instructor
Instructors: Maud Ferrari/Myrna McDonald
Rationale: This course is designed to establish the foundations of grad students' "para-professional skills" necessary for their success. Such skills include: developing effective work habits and transitioning to independent learning, coping with stress, developing good EQ, interpersonal skills and understand the variety of communication styles. In addition, all students doing research – especially those that may never take statistics – need to have a basic knowledge of experimental design and basic scientific concepts allowing them to make robust conclusions. The course helps them develop their written and oral communication skills, with a focus on non-specialist audience – in fact, most of them publish a science newspaper article published in the WCVM website. Finally, the students will develop a professional plan that will help them identify the skills they need to acquire prior to applying for jobs.

CURRICULUM STUDIES – For Information

Grad mode change

ECUR 991 Scholarship in Teaching
Current mode: numeric/percentage
Proposed mode: pass/fail
Rationale: This adjustment harmonizes ECUR 991 with ETAD 991, promoting efficient administration across both programs within the department. Experience with ETAD 991, currently utilizing a pass/fail system, demonstrates the continued high quality of student capstone projects. Additionally, faculty find the adjudication of capstone projects to be highly subjective due to their unique nature.

College of Law – August 2024 University Course Challenge Submission – For Information

The changes presented here in red address minor corrections from the May 2024 UCC submission, as well as some title adjustments.

LAW 409.3 and LAW 434.12

FROM:
Law 409.3 – Rural Legal Externship Seminar
Law 434.12 – Rural and Regional Externship Practicum – "Upon approval, would meet the program requirement for a seminar class".

TO:
Law 409.3 Rural and Regional Legal Seminar – This course counts as the Juris Doctor seminar class program requirement.
Law 434.12 – Rural and Regional Legal Externship

The Catalogue will be adjusted as follows:

LAW 409.3 Rural and Regional Legal Seminar
The purpose of this seminar is to provide a theoretical framework and reflective space for 2L and 3L students to deepen their understanding of rural law, ethics, and practical issues they encounter in their externship placements. It aims to complement the hands-on externship experience with academic inquiry and discussion, enriching students' overall learning and professional development. The LAW 409: Rural Legal Externship Seminar is designed to run concurrently with the Rural Legal Externship. It may include guest lectures from experts in rural law, workshops on specialized topics and sessions focused on developing professional skills such as negotiation and advocacy. The seminar will also provide a forum for students to present their experiences, challenges, and successes from their externships, fostering a collaborative and supportive learning environment. This course counts as the Juris Doctor seminar class program requirement.
Corequisite(s): LAW 434.12 Rural and Regional Legal Externship.

Law 434.12 – Rural and Regional Legal Externship
The Rural Legal Externship leverages an experiential education model where law students learn through direct experience, hands-on mentorship, and critical reflection. Centered around students' clinical experiences in a rural legal setting at Legal Aid or Public Prosecutions, they will work with client files across a spectrum of legal areas potentially including family law and criminal law, gaining a deeper understanding of various legal challenges specific to rural communities. Students will be supervised throughout their legal assignments by a practicing lawyer, ensuring guidance and support as they navigate real-world client files. As part of their externship and the associated seminar, students will gain essential tools to critically reflect upon their legal practice and explore their identities as future lawyers. This immersive insight into the legal system in rural areas prepares students to effectively contribute to and advocate within these communities. Students are expected to engage in their extern duties from Monday to Thursday each week, with Friday mornings dedicated to attending an online clinical law seminar. ~~Upon approval, would meet the program requirement for a Seminar Class.~~
Prerequisite(s): Successful completion of first-year Law.
Corequisite(s): LAW 409.3 Rural and Regional Legal ~~Externship~~ Seminar.