



## Academic Programs Committee of Council

### University Course Challenge

**Scheduled posting: June 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  
College of Pharmacy and Nutrition  
School of Environment and Sustainability

**Approval:**      Date of circulation: June 15, 2022  
                            Date of effective approval if no challenge received: June 30, 2022

**Next scheduled posting:**

The next scheduled posting will be August 15, 2022, with a submission deadline of **August 11, 2022**. 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 Governance Office.

## University Course Challenge – June 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](mailto:alexis.dahl@usask.ca))

### Correction from May 2022 UCC:

#### Religion and Culture

##### Minor program revisions:

##### **Bachelor of Arts Honours, Double Honours, Four-year, and Three-year and Minor in Religion and Culture**

Original changes are shown in red, corrections in orange.

#### Double Honours - Religion and Culture – Major 1

A4 Major Requirement (36 credit units)

- RLST 280.3 Methodologies and Approaches to Study of Religions

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

- ~~• RLST – 100-Level, 200-Level~~

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

- ~~• RLST – 100-Level, 200-Level~~

~~Choose 3 credit units from the following:~~

- ~~• RLST – 400-Level~~

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

- ~~• RLST – 300-Level, 400-Level~~

~~Choose 24 18 credit units from the following: RLST courses, with at least 9 credit units of senior courses from each of Area A and Area B.~~

~~9 credit units must be taken at the 300-level or above, of which at least 3 credit units must be at the 400-level.~~

- ~~• RLST – 100-Level; 200-Level; 300-Level, 400-Level~~

#### ~~Area A: Asian Religions in Cross-Cultural Perspective~~

- ~~• RLST 200.3 Religions in Canada~~

- ~~RLST 211.3~~ Introduction to Hinduism
- ~~RLST 214.3~~ Introduction to Philosophies of India
- ~~RLST 215.3~~ Indian Yoga Heritage
- ~~RLST 217.3~~ Buddhist Religious Tradition
- ~~RLST 218.3~~ Developments in Buddhist Thought
- ~~RLST 230.3~~
- ~~RLST 231.3~~ Confucianism Continuity and Change
- ~~RLST 234.3~~ Chinese Religions
- ~~RLST 235.3~~ Japanese Religions
- ~~RLST 258.3~~ Religion and Culture in Bollywood Film
- ~~RLST 282.3~~ Religious Perspectives on Death and Dying
- ~~RLST 283.3~~ Comparative Mysticism
- ~~RLST 284.3~~ Religions and Non Violence
- ~~RLST 285.3~~ Religions and Ethnicity
- ~~RLST 329.3~~ Studies in Bhagavad Gita
- ~~RLST 330.3~~ Daoism
- ~~RLST 332.3~~
- ~~RLST 390.3~~
- ~~RLST 412.3~~ Seminar in Religions and Culture
- ~~RLST 413.3~~ Seminar in Religious Thought
- ~~RLST 423.3~~ Comparative Approaches to Study of Religions

#### **Area B: Western Religions in Cross-Cultural Perspective**

- ~~RLST 210.3~~ Religion and Ecology
- ~~RLST 216.3~~ Religion and Politics on Film
- ~~RLST 219.3~~ Bible and Western Culture
- ~~RLST 220.3~~ Women in Western Religious Traditions
- ~~RLST 221.3~~ Introduction to Christianity
- ~~RLST 225.3~~ Perspectives on Jesus
- ~~RLST 226.3~~ Religion Globalization and Social Justice
- ~~RLST 227.3~~ Introduction to Judaism
- ~~RLST 228.3~~ Judaism Justice and Prophecy
- ~~RLST 229.3~~ Religion and Sport
- ~~RLST 237.3~~ Life After Death in World Religions
- ~~RLST 240.3~~ Introduction to Islam
- ~~RLST 241.3~~ Islam in the Modern World
- ~~RLST 243.3~~ Islam in Hollywood
- ~~RLST 253.3~~ Introduction to Old Testament
- ~~RLST 254.3~~ Introduction to New Testament
- ~~RLST 255.3~~ Doukhobor Culture in Canada
- ~~RLST 300.3~~
- ~~RLST 301.3~~ Apocalyptic Then and Now
- ~~RLST 303.3~~ Goddesses in Myth and History
- ~~RLST 314.3~~ Issues in Contemporary Catholicism
- ~~RLST 321.3~~ Gender and God Talk
- ~~RLST 328.3~~ Jewish-Christian Relations in Historical Perspective
- ~~RLST 359.3~~ Helpmates Harlots Goddesses and Heroines
- ~~RLST 361.3~~ Rabbinic Literature
- ~~RLST 362.3~~ Monsters and Mischief Makers
- ~~RLST 363.3~~ Early Christian Literature Text and Context
- ~~RLST 365.3~~ Bible and Film

- ~~RLST 375.3 Religion and Science~~
- ~~RLST 382.3 Sex, God and Rock n' Roll Re-Vamping the Sacred~~
- ~~RLST 391.3 Readings in Western Religions~~

Choose **3 6 credit units** from the following:

- ~~ANTH 230.3 Cultural Dynamics~~
- **ANTH 321.3** Myth Ritual and Symbol
- ~~ANTH 339.3 Cultural Change, Globalization and Development~~
- ~~ANTH 354.3~~
- **ARCH 244.3** Archaeology and Cultural Development Ancient Israel and Syria Late Bronze Age to Hellenistic Period
- **CLAS 104.3** Classical Myths
- ~~CLAS 240.3 Ancient Art and Architecture I Bronze Age to Classical Greece~~
- ~~CLAS 242.3 Ancient Art and Architecture II Graeco Roman World~~
- ~~CPSJ 112.3 Introduction to Peace Studies~~
- ~~CPSJ 310.3 Peace Theory and Praxis~~
- **CTST 200.3** Introduction to Catholic Studies
- **CTST 300.3** Critical Perspectives on Catholic Studies
- ~~GEOG 130.3 Environment Health and Planning~~
- **INDG 210.3** Indigenous Ways of Knowing
- **INDG 212.3** Nehiyaw Tapsinowin Cree Cultural Histories
- **INDG 214.3** Saulteaux Cultural Expressions
- ~~IS 211.3 Introduction to International Studies Development~~
- ~~IS 212.3 International Studies and Conflict~~
- ~~LING 244.3 Sociolinguistics~~
- ~~LING 402.3 Language and Culture~~
- **PHIL 202.3** Philosophy of Religion
- **PHIL 302.3** Contemporary Philosophy of Religion
- ~~RLST 233.3~~
- ~~RLST 332.3~~
- **RLST – 100-Level; 200-Level; 300-Level, 400-Level**
- **SOC 321.3** Sociology of Religion
- **UKR 354.3** Lenses of Belief Ritual Spaces in Ukrainian Culture

#### A5 Electives Requirement (51 credit units)

#### Major 2 (36 - 42 credit units)

- Double Honours requirements in second discipline

#### Open Electives (9-15 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 Double Honours program. Of the 120 credit units required at least 66 must be at the 200-level or higher and no more than 60 in one subject.

If you require further assistance, please contact the Arts and Science Undergraduate Student Office.

#### **Double Honours - Religion and Culture – Major 2**

**Area Requirements (36 credit units)**

- **RLST 280.3** Methodologies and Approaches to Study of Religions

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

- ~~**RLST — 100-Level, 200-Level**~~

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

- ~~**RLST — 100-Level, 200-Level**~~

Choose **3 credit units** from the following:

- **RLST – 400-Level**

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

- **RLST – 300-Level, 400-Level**

Choose **18 credit units** from the following:

- **RLST – 100-Level; 200-Level; 300-Level, 400-Level**

Choose **36 credit units** from the following:

- ~~**ANTH 230.3**~~ Cultural Dynamics
- **ANTH 321.3** Myth Ritual and Symbol
- ~~**ANTH 339.3**~~ Cultural Change, Globalization and Development
- ~~**ANTH 354.3**~~
- **ARCH 244.3** Archaeology and Cultural Development Ancient Israel and Syria Late Bronze Age to Hellenistic Period
- **CLAS 104.3** Classical Myths
- ~~**CLAS 240.3**~~ Ancient Art and Architecture I Bronze Age to Classical Greece
- ~~**CLAS 242.3**~~ Ancient Art and Architecture II Graeco-Roman World
- ~~**CPSJ 112.3**~~ Introduction to Peace Studies
- ~~**CPSJ 310.3**~~ Peace Theory and Praxis
- **CTST 200.3** Introduction to Catholic Studies
- **CTST 300.3** Critical Perspectives on Catholic Studies
- ~~**GEOG 130.3**~~ Environment Health and Planning
- **INDG 210.3** Indigenous Ways of Knowing
- **INDG 212.3** Nehiyaw Tapsinowin Cree Cultural Histories
- **INDG 214.3** Saulteaux Cultural Expressions
- ~~**IS 211.3**~~ Introduction to International Studies Development
- ~~**IS 212.3**~~ International Studies and Conflict
- ~~**LING 244.3**~~ Sociolinguistics
- ~~**LING 402.3**~~ Language and Culture
- **PHIL 202.3** Philosophy of Religion
- **PHIL 302.3** Contemporary Philosophy of Religion

- ~~RLST 233.3~~
- ~~RLST 332.3~~
- **RLST – 100-Level; 200-Level; 300-Level, 400-Level**
- **SOC 321.3** Sociology of Religion
- **UKR 354.3** Lenses of Belief Ritual Spaces in Ukrainian Culture

Rationale for corrections: The requirement for students to take 6 credit units from 100- or 200-level RLST was meant to be removed (previously shown as both removed and added) from the Double Honours requirements. Additional information needed in the A5 requirement for Double Honours Major 1 was missed, but is needed to ensure that students understand that they must select a second discipline to earn a Double Honours degree.

## **College of Graduate and Postdoctoral Studies, University Course Challenge – June 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](mailto:melissa.kyrejto@usask.ca))

### **Anthropology**

#### **Minor Program Modification:**

#### **Master of Arts (M.A.) - Project-based (Practicing Anthropology)**

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#### **Degree Requirements**

Students in the project-based Master of Arts (M.A.) in Anthropology will earn a concentration in Practicing Anthropology. Students must maintain continuous registration in ANTH 992.6.

- GPS 960.0
- GPS 961.0
- GPS 962.0

A minimum of 24 credit units including:

- ~~ANTH 801.3~~
- ANTH 802.3
- ANTH 804.3
- ANTH 806.3
- ANTH 808.3
- ANTH 990.0
- ANTH 992.6
- complete ~~a 36~~ credit units ~~s~~ elective~~s~~, as approved by the advisory committee

#### **Course Deletion:**

#### **ANTH 801.3 Contemporary Anthropological Theory**

Rationale: The course is no longer required for either Anthropology MA program.

## Computer Science

### **New Course(s):**

#### **CMPT 813.3 Advanced Modelling and Algorithms on Biological Systems**

This course focusses on mathematical and computational modelling of various real-world processes, with the main focus on biological systems. Using discrete models, algorithmic strategies will be explored including exact algorithms, approximation algorithms, heuristic algorithms, and randomized algorithms. The algorithms and models used will involve sets, graphs, strings, trees, and machines. For each algorithmic technique, we will study applications from biological systems and bioinformatics, including biomolecule string matching, sequence alignment, sequence assembly, compression, read mapping, stochastic modelling, and genome rearrangement. A class project will test the implementation or study of a model/algorithm.

Prerequisite(s): An undergraduate course in algorithms (such as CMPT 360) is recommended.

Note(s): This course is a hybrid course with CMPT 451, and this course cannot be taken for credit after previously taking CMPT 451.

Instructor: Dr. Ian McQuillan

Rationale: This year, we introduced a new undergraduate program in Applied Computing, and made a new stream called Bioinformatics, that replaced the old undergraduate program called Bioinformatics. There was a course that was a part of the old Bioinformatics stream called BINF 300, that involved Bioinformatics from an algorithms-heavy perspective. Enrolment was not particularly high, so we wanted to open up the course to more computer science students, and then also make it a hybrid graduate course. Starting next year, we are offering CMPT 451 (which is the renamed version of BINF 300). This graduate offering will therefore be held at the same time, which makes it easier to offer such a course. It will be useful for any graduate student with a computer science background, who focusses on modelling. This will be useful for students to gain better experience with modelling of biological processes and modelling generally, and students will learn how to create advanced algorithms.

#### **CMPT 827.3 Cognitive Scientific Approaches to AI**

A discussion of cognitive scientific approaches to Artificial Intelligence. Examples of topics include genetic algorithms, complex adaptive systems, classifier systems, multi-agent systems, and their philosophical underpinnings.

Prerequisite(s): CMPT 317 or equivalent.

Instructor: Dr. Nadeem Jamali

Rationale: With the growing popularity of Machine Learning and its use in important applications, have also come questions about its limits: it typically requires a large amount of data and compute power. It is now widely understood that very different approaches may be needed to achieve human-level intelligence, and these approaches may take a few more decades to develop. This course aims to introduce students to cognitive scientific approaches to AI and to their philosophical underpinnings. The goal is to prepare students to undertake advanced research utilizing deep knowledge of these advanced approaches. The course has been successfully taught twice as a CMPT 898 Special Topics course.



## **Educational Foundations**

### **New Course(s):**

#### **EFDT 861.3 Sentient Being and Indigenous Identity**

This course examines Indigenous identity, sense, and sensibility in relationship with their environments (lands, seas, mountains, rivers, lakes). Indigenous knowledge systems acknowledge sentience within these environments, which forms the basis of a reciprocal relationship between Indigenous peoples and their lands. During this course, students will examine how this relationship and these sentient beings guide the spiritual and physical nourishment of Indigenous identity and intellect that ultimately strengthens Indigenous language and cultural revitalization and continuations.

Instructor: Dr. Karla Jessen Williamson

Rationale: Educational Foundations' Land-based education graduate program needs courses that are developed by Indigenous scholars and the insights coming that worldview. This course is one of such quality and needed to strengthen and continue to attract graduate students across Canada and internationally. The course content addresses the animation of the Indigenous knowledge centering on 'sentient being' whereby every individual is surrounded by seeing and hearing spirits. This challenges the Eurocentric ideals whereby the ownership continues to perpetuate patriarchy and privatization of human being over the creation.

## **Johnson Shoyama Graduate School of Public Policy**

### **Minor Program Modification:**

#### **Graduate Certificate (G.Cert.) - Public Policy Analysis**

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#### **Certificate Requirements (9 credit units)**

The certificate can be taken as a stand-alone program and/or the courses can be applied to the completion of the Master of Public Administration (M.P.A.). Courses completed for one Graduate Certificate may not be used toward another certificate.

The certificate program consists of one required three credit unit course, JSGS 806, [JSGS 867](#), or [JSGS 869](#) and two electives (6 credit units), as follows:

Required Course:

- [JSGS 806.3](#); or
- [JSGS 867.3](#); or
- [JSGS 869.3](#)

6 credit units from the following:

- JSGS 805.3
- JSGS 806.3
- JSGS 807.3
- JSGS 818.3
- JSGS 819.3
- JSGS 822.3
- JSGS 851.3
- JSGS 863.3
- JSGS 864.3
- JSGS 865.3
- JSGS 867.3
- JSGS 869.3
- Or another equivalent policy course as recommended and approved by the Graduate Chair.

Rationale: Changes are to include current JSGS courses that align with the subject of the certificate but are not yet listed as course options.

#### **Minor Program Modification:**

#### **Graduate Certificate (G.Cert.) – Economic Analysis for Public Policy**

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#### **Certificate Requirements (9 credit units)**

The certificate can be taken as a stand-alone program and/or the courses can be applied to the completion of the Master of Public Administration (M.P.A.). Courses completed for one Graduate Certificate may not be used toward another certificate.

The certificate program consists of one required three credit unit course, JSGS 805 or JSGS 862, and two electives (6 credit units), as follows:

Required Course:

- JSGS 805.3; or
- JSGS 862.3

6 credit units from the following:

- JSGS 803.3
- JSGS 805.3
- JSGS 806.3
- JSGS 807.3
- JSGS 820.3
- JSGS 821.3
- JSGS 837.3
- JSGS 862.3
- JSGS 865.3
- Or another equivalent economic analysis course as recommended and approved by the Graduate Chair.

Rationale: Changes are to include current JSGS courses that align with the subject of the certificate but are not yet listed as course options.

#### **Course Modifications:**

Modifications to JSGS 850, 891, and 892 are being noted here for information:

#### **JSGS 850.0 Johnson Shoyama Graduate School of Public Policy Internship**

The JSGS internship program is a competitive process open to students in the MPA ~~and MPP~~ programs who have completed at least 50 percent of their program, ~~including the core program courses~~, and have little or no experience in the public sector. Students will be exposed to the skills used by managers at senior levels in the public sector and will perform a variety of tasks. Old prerequisite: Must have completed at least 50% of the M.P.A. or M.P.P. program course work, including core courses.

New Prerequisite: Must have completed at least 50% of the M.P.A. program course work.

Rationale: The internship is no longer open to students in the MPP program.

#### **JSGS 891.3 Public Policy Professionalism**

This pass/fail course provides students with an introduction to the three MPA competency fields, and the overarching areas of knowledge required of policy professionals. It will also provide introductory classes on Canadian institutions, public sector processes, basic policy making skills, public servants' roles and responsibilities ~~and introduce the final MPA capstone project which will be presented at the end of the MPA program as part of JSGS 892 which is taken in the last semester of the program.~~

Rationale: The current course catalogue calendar description for JSGS 891.3 does not align with

JSGS practice as students in JSGS 891 do not finalize a topic for their JSGS 892 MPA capstone project during the JSGS 891 course.

### **JSGS 892.3 MPA Capstone Class**

This course requires the development, submission, presentation and validation of a capstone report and presentation at the end of the student's MPA program. ~~The Capstone Project provides students the opportunity to apply the theory and practice gained in the MPA program to a policy/management problem that was chosen in consultation with the JSGS 891 course instructor.~~

Rationale: The current course catalogue calendar description for JSGS 892.3 does not align with JSGS practice as students in JSGS 891 do not finalize a topic for their JSGS 892 MPA capstone project during the JSGS 891 course.

### **Physical Therapy**

The following curricular changes are being made to facilitate some course content adjustments in the program. The overall credit units required for the program remain the same.

#### **Program Modification:**

#### **Master of Physical Therapy (M.P.T.) - Course-based**

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#### **Program Requirements**

A minimum total of 132 credit units are required to complete this program.

- PTH 990.0 Physical Therapy Professional Development supports independent and guided learning experiences to support professional development and growth throughout the duration of the program.

#### **Module I (~~136~~ weeks)**

~~Seven~~~~Eight~~ courses (~~1624~~ credit units) concentrating on acquiring foundational knowledge and skills. Includes a one-week clinical education experience.

- GPS 960.0 Introduction to Ethics and Integrity
- GPS 961.0 Ethics and Integrity in Human Research
- PTH 800.6 Introduction to Physical Therapy Foundations
- PTH 801.3 Evidence Based Practice and Pathology for Physical Therapists
- PTH 808.3 Lifespan I Development Aging and Pharmacological Issues across the Lifespan
- PTH 870.3 Human Anatomy

- ~~PTH 815.4 Human Anatomy (multi-term)~~
- ~~PTH 822.5 Foundations I Functional Activities and Exercise Therapy~~
- ~~PTH 840.3 Foundations II Introductory Treatment Methods~~
- PTH 850.1 Clinical Practice I
- ~~PTH 851.1 Case Integration I~~
- ~~PTH 860.2 Evidence Based Practice I~~
- ~~PTH 861.2 Professional Practice I~~

### Module II (123 weeks)

Seven courses (168 credit units) building on foundational knowledge and skills relevant to physical therapy with emphasis on movement science.

- ~~PTH 805.3 Pathology for Physical Therapists~~
- ~~PTH 815.4 Human Anatomy (continued)~~
- PTH 802.13 Advanced Physical Therapy Foundations Assessment and Treatment
- PTH 820.3 Functional Neuroanatomy
- ~~PTH 823.3 Foundations III Movement Analysis~~
- ~~PTH 825.3 Exercise Physiology for Physical Therapists~~
- ~~PTH 853.1 Case Integration II~~
- ~~PTH 863.5 Professional Practice II~~

### Module III (54 weeks)

One clinical education course, PTH ~~876.5~~852.4 Clinical Practice II (54 credit units) consisting of practical experience in a provincial health care facility.

- PTH 876.5 ~~PTH 852.4~~ Clinical Practice II

### Module IV (9 weeks)

~~Two~~Four courses (168 credit units) emphasizing evidence-based assessment and management of musculoskeletal, neurological and cardiorespiratory conditions.

- PTH 803.8 Musculoskeletal Assessment and Treatment
- PTH 804.8 Cardiorespiratory Assessment and Treatment
- ~~PTH 830.7 Musculoskeletal I~~

- ~~• PTH 831.3 Cardiorespiratory I~~
- ~~• PTH 845.6 Neurology I~~
- ~~• PTH 862.2 Evidence Based Practice II~~

### Module V (86 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 832.3 Musculoskeletal II~~
- ~~• PTH 833.3 Cardiorespiratory II~~
- ~~• PTH 847.6 Neurology II~~
- 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 VI (64 weeks)

Four courses (16 credit units) extending foundational knowledge and skills in physical therapy interventions. One clinical education course, PTH 854.4 Clinical Practice III (4 credit unit) consisting of practical experience in a Canadian health care facility.

- PTH 829.3 Lifespan II: Pediatrics, Obstetrics and Gynecology, Nutrition
- PTH 871.6 Advanced Musculoskeletal
- PTH 839.4 Advanced Clinical Exercise Physiology
- PTH 874.3 Electrophysical Agents
- ~~• PTH 854.4 Clinical Practice III~~

### Module VII (126 weeks)

Two clinical education courses (18 credit units) consisting of practical experience in a Canadian health care facility. Four courses (13 credit units) extending foundational knowledge and skills in physical therapy interventions.

- PTH 878.6 Clinical Practice III
- PTH 880.12 Clinical Practice IV (crosses into Module IX)
- PTH 829.3 Lifespan II Pediatrics Obstetrics and Gynecology

- ~~PTH 834.4 Musculoskeletal III~~
- ~~PTH 839.4 Advanced Clinical Exercise Physiology~~
- ~~PTH 841.2 Foundations IV Electrophysical Agents~~

### **Module VIII (15 weeks)**

Six courses (25 credit units) dealing with advanced topics in professional practice, evidence-based practice, and management of clinical conditions. One clinical education course, PTH 856.15 Clinical Practice IV (15 credit units) consisting of three 5-week practicums in Canadian health care facilities.

- PTH 872.3 Health Promotion and Wellness
- PTH 873.9 Musculoskeletal Practice Application to Special Populations
- PTH 875.3 Advanced Neurology
- PTH 879.2 Advanced Application of Clinical Reasoning
- PTH 864.3 Evidenced Based Practice III
- PTH 867.6 Advanced Professional Practice for Physical Therapists
- ~~PTH 856.15 Clinical Practice IV~~

### **Module IX (12 weeks)**

Two clinical education courses (12 credit units) consisting of practical experience in a Canadian health care facility. Six courses (19 credit units) dealing with advanced topics in professional practice, evidence-based practice, and management of clinical conditions.

- PTH 880.12 Clinical Practice IV (6 credit units from Module VII)
- PTH 858.6 Clinical Practice V
- ~~PTH 835.2 Health Promotion and Wellness~~
- ~~PTH 838.5 Musculoskeletal IV~~
- ~~PTH 848.2 Neurology III~~
- ~~PTH 855.1 Case Integration III~~
- ~~PTH 864.3 Evidence Based Practice III~~
- ~~PTH 867.6 Professional Practice IV~~

### **Module X (6 weeks)**

~~One clinical education course, PTH 858.6 Clinical Practice V (6 credit units) in a health care facility emphasizing increasing independence with complex clinical caseloads.~~

~~• PTH 858.6 Clinical Practice V~~

## **Residency Requirements**

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Rationale: Most courses in the MPT program are clinical skills courses; courses that cannot be converted to completely remote delivery due to safety control, supervision, and evaluation requirements to meet accreditation standards and ensure competencies met for clinical practice. As such, a great deal of content shifting needed to occur early in 2020 and in 2021-22. This content shifting was based on essential pandemic need, but also decisions based on moving our curriculum to a reduction in number of courses, merging of content which fit initial plans we had for curriculum renewal.

### **New Course(s):**

#### **PTH 800.6 Introduction to Physical Therapy Foundations**

Students will explore physical therapy professionalism and the basic theory and clinical application of assessment, analysis, treatment methods, and clinical reasoning, and decision-making including basic models and biopsychosocial foundations (e.g. biomechanics, exercise physiology, sensitive practice, and education) informing physical therapy practice.

Note(s): Must be accepted in MPT program to register.

Rationale: During the Covid 19 pandemic, some courses were combined to increase efficiency in teaching. Multiple related courses were combined to decrease repetition and enhance student learning in a limited in-person environment. Now that U of S has returned to in-person learning, we anticipate increased enhancement of student learning in this combined model. This course contains material from previous MPT courses: PTH 822.5, 861.2, and 840.3 with close collaboration amongst multiple instructors.

#### **PTH 801.3 Evidence Based Practice and Pathology for Physical Therapists**

This course builds confidence as an evidence-based practitioner, focusing on literature search strategies, measurement, and critical appraisal in health research. It will also address concepts of general pathology and pathophysiology relevant to Physical Therapy including the role of pathology and laboratory medicine underlying diagnosis, pathogenesis, and management of disease.

Note(s): Must be accepted in MPT program to register.

Rationale: During the Covid 19 pandemic, some courses were combined in order to increase efficiency and enhance student learning in a limited in-person environment. Now that U of S has returned to in-person learning, we anticipate increased enhancement of student learning in this combined model. This course contains material from previous MPT courses: PTH 805 and 860 with close collaboration between instructors.



### **PTH 802.13 Advanced Physical Therapy Foundations**

Students will further develop foundational physical therapy assessment and treatment skills, considering and responding to unique client/patient characteristics including systemic racism, discrimination, cultural humility, and cultural safety in the context of Indigenous health. Focus is on integration of foundational knowledge, critical thinking and practice skills congruent with holistic, responsive care.

Note(s): Must be accepted in MPT program to register.

Rationale: During the Covid 19 pandemic, some courses were combined in order to increase efficiency and enhance student learning in a limited in-person environment. Now that U of S has returned to in-person learning, we anticipate increased enhancement of student learning in this combined model. This course contains material from previous MPT courses: PTH 823.3, 840.3, 825.3, 863.5 and 851.1 with close collaboration amongst multiple instructors.

### **PTH 803.8 Musculoskeletal Assessment and Treatment**

This course includes the epidemiology, pathology, assessment and clinical findings of common musculoskeletal conditions, introduces the theory and skills related to the manual therapy examination, treatment and select manipulation techniques. Topics include evaluation of acuity of signs and symptoms, regional examination, differential diagnosis, safety screening, pre-treatment decisions, and treatment planning.

Note(s): Must be accepted in MPT program to register.

Rationale: PTH 830.7 and 832.3 were combined into one course during the Covid-19 pandemic to increase efficiency.

### **PTH 804.8 Cardiorespiratory Assessment and Treatment**

The course contains an introduction to the physiology, pathophysiology, assessment, and management of the cardiovascular and respiratory systems in a variety of physical therapy settings. Emphasis will be placed on critical thinking, problem solving, and clinical skills for the management of disorders that impact the oxygen transport system. Using an evidence-based practice approach this course will provide knowledge, skills and attitudes related to the physical therapy management of people who have acute medical, surgical, critical cardiorespiratory conditions.

Note(s): Must be accepted in MPT program to register.

Rationale: PTH 831.3 and 833.3 were combined into one course during the Covid-19 pandemic to increase efficiency.

### **PTH 806.8 Neurology Assessment and Treatment**

This course introduces students to a framework for neurological practice based on best evidence, motor control and learning theories, neuroanatomy, neurophysiology and neuroplasticity. Physiotherapy assessment and treatment of common neurological conditions is covered, including stroke, brain injury, spinal cord injury, multiple sclerosis, and Parkinson's disease. A task-oriented approach is emphasized.

Note(s): Must be accepted in MPT program to register.

Rationale: PTH 847.6 and 845.6 were combined into one course during the Covid-19 pandemic to increase efficiency.

### **PTH 990.0 Physical Therapy Professional Development**

This course supports independent and guided learning experiences to support professional development and growth, based on the competency profile for entry to practice physical therapy national guidelines.

Note(s): Must be accepted in MPT program to register.

Rationale: For MPT students to be able to secure and retain student loans during the full period of time in the MPT program, they have to be continually registered in the program. Student loans criteria is that students must be registered in a course. Our students pay a per program tuition, meaning it is dispersed across the program, it is not a per credit unit tuition. Prior to 2019, the 992 project was a course they were registered in from program start to graduation. This served as a “placeholder” for continuous registration. When we eliminated 992, we did not anticipate the challenges that would result with students losing their student loans when not registered in a course, as well as errors that occurred with tuition assessment. It resulted in a messy situation to solve in 2020-21. The registrar’s office worked with us to create an administrative “course” placeholder, which we thought would solve any future concerns. However, it appears the use of an administrative placeholder is not the correct solution, and we require an ongoing course registration. This course contains the independent and guided learning activities that students are involved in for the duration of the program.

### **Course Modifications:**

#### **PTH 815.4 Human Anatomy**

Current course number: 815

New course number: 870

Current credit units: 4

New credit units: 3

Rationale: PTH 815.4 previously spanned 2 terms. During the Covid-19 pandemic, it was compressed into 1 term. With total hours slightly decreased, this course should now be 3 credit units.

#### **PTH 834.4 Musculoskeletal III**

Focuses on the progression of manual therapy assessment and treatment including spinal and lower extremity examination, clinical reasoning, differential diagnosis, and treatment planning for common musculoskeletal conditions. Skills including mobilization and manipulation of lower extremity joints and mobilization of spinal joints will be developed. ~~Management of acute pain and chronic malignant pain with musculoskeletal disorders will be addressed.~~

Current course number: 834

New course number: 871

Current credit units: 5

New credit units: 6

Current course title: Musculoskeletal III

New course title: Advanced Musculoskeletal

Rationale: The name of this course was changed during the Covid-19 pandemic because Musculoskeletal I and II were combined. Musculoskeletal III wasn't a course name that could exist due to numbering issues. Credit units must be increased to reflect the amount of theory also covered during lab.

### **PTH 835.2 Health Promotion and Wellness**

Current course number: 835

New course number: 872

Current credit units: 2

New credit units: 3

Rationale: During Covid, this course underwent some changes that saw some lab time scaffolded with theory/application. Those changes remain. An increase in credit units is necessary to reflect this change.

### **PTH 838.5 Musculoskeletal IV**

This course addresses sport physical therapy, ergonomics, and physical therapy management of burns and frostbite. The sports physical therapy component includes field assessment, acute and return to activity, and the rehabilitation of common sport injuries. Student will develop skills in manual therapy including manipulation for lumbo-sacral ~~and thoracic~~ spine joints. The course will include the principles and practices of prevention, perioperative and prosthetic management of lower extremity amputations. Management of acute pain, chronic non-malignant pain and chronic malignant pain with musculoskeletal disorders will addressed.

Current course number: 838

New course number: 873

Current credit units: 5

New credit units: 9

Current course title: Musculoskeletal IV

New course title: Musculoskeletal Practical Application to Special Populations

Rationale: The name of this course was changed during the Covid-19 pandemic because Musculoskeletal I and II were combined, and Musculoskeletal III was renamed due to the numbering issue. Credit units are now changed to reflect the amount of theory also covered during lab time.

### **PTH 841.2 Foundations IV Electrophysical Agents**

Current course number: 841

New course number: 874

Current credit units: 2

New credit units: 3

Current course title: Foundations IV Electrophysical Agents

New course title: Electrophysical Agents

Rationale: The name of this course was changed during the Covid-19 pandemic because Foundations courses are no longer numbered. Credit unit increase better reflects contact hours.

### **PTH 848.2 Neurology III**

Current course number: 848

New course number: 875

Current credit units: 2

New credit units: 3

Current course title: Neurology III

New course title: Advanced Neurology

Rationale: The name of this course was changed during the Covid-19 pandemic because Neurology I and II were combined. Neurology III wasn't a course name that could exist due to numbering issues. The credit unit change better reflects the class time and work required for this course.

### **PTH 852.4 Clinical Practice II**

Current course number: 852

New course number: 876

Current credit units: 4

New credit units: 5

Rationale: Clinical education blocks were redistributed during the Covid-19 pandemic due to restrictions in the clinical environment, as well as calendar restrictions for the academic year. Total clinical hours in the program have not changed, but they have been redistributed. One week was added to this block. Traditionally 1 credit unit has been assigned per week of clinical education.

### **PTH 853.1 Case Integration II**

Current course number: 853

New course number: 877

Current credit units: 1

New credit units: 2

Current course title: Case Integration II

New course title: Introduction to Applied Clinical Reasoning

Rationale: This course name changed from PTH 853.1 Case Integration II to Introduction to Applied Clinical Reasoning. Case Integration I material had been absorbed into another course, so the name needed to be changed due to sequential numbering issues. This course delivery has changed slightly and requires an increase in credit units. (Still 1 week, but more time with instructors/tutors).

### **PTH 854.4 Clinical Practice III**

Current course number: 854

New course number: 878

Current credit units: 4

New credit units: 6

Rationale: Clinical education blocks were redistributed during the Covid-19 pandemic due to restrictions in the clinical environment, as well as calendar restrictions for the academic year. Total clinical hours in the program have not changed, but they have been redistributed. Two weeks were added to this block. Traditionally 1 credit unit has been assigned per week of clinical education.

### **PTH 855.1 Case Integration III**

Current course number: 855

New course number: 879

Current credit units: 1

New credit units: 2

Current course title: Case Integration III

New course title: Advanced Application to Clinical Reasoning

Rationale: This course name changed from PTH 855.1 Case Integration III to Advanced Application to Clinical Reasoning. Case Integration I had been absorbed into another course, so the sequential numbering of these courses became problematic. Credit units increased due to change in course delivery (Still one week, but increased time with instructor/tutors).

### **PTH 856.15 Clinical Practice IV**

Current course number: 856

New course number: 880

Current credit units: 15

New credit units: 12

Rationale: Clinical education blocks were redistributed during the Covid-19 pandemic due to restrictions in the clinical environment, as well as calendar restrictions for the academic year. Total clinical hours in the program have not changed, but they have been redistributed. This block went from 3 five-week placements to 2 six-week placements (15 weeks to 12). Traditionally 1 credit unit has been assigned per week of clinical education.

### **PTH 865.2 Professional Practice III**

Current course title: Professional Practice III

New course title: Professional Practice for Physical Therapists

Rationale: The name of this course was changed during the Covid-19 pandemic because Professional Practice I and II were combined with other courses. The following Professional Practice courses then experienced numbering issues.

### **PTH 867.6 Professional Practice IV**

Current course title: Professional Practice IV

New course title: Advanced Professional Practice for Physical Therapists

Rationale: The name of this course was changed during the Covid-19 pandemic because

Professional Practice I and II were combined with other courses. The following Professional Practice courses then experienced numbering issues.

**Course Deletion(s):**

**PTH 805.3 Pathology for Physical Therapists**

Rationale: Combined with PTH 860.2 into new course PTH 801.2.

**PTH 822.5 Foundations I**

Rationale: Combined with other courses into PTH 800.6.

**PTH 823.3 Foundations III**

Rationale: Material combined with other courses into new courses PTH 800.6 and PTH 802.9.

**PTH 825.3 Exercise Physiology for Physical Therapists**

Rationale: Material was combined with PTH 823.3 into new course PTH 802.9.

**PTH 830.7 Musculoskeletal I**

Rationale: Material was combined with PTH 832.3 into new course PTH 803.7.

**PTH 831.3 Cardiorespiratory I**

Rationale: Combined with PTH 833.3 into new course PTH 804.7.

**PTH 832.3 Musculoskeletal II**

Rationale: Material was combined with PTH 830.7 into new course PTH 803.7.

**PTH 833.3 Cardiorespiratory II**

Rationale: Combined with PTH 831.3 into new course 804.7.

**PTH 840.3 Foundations II Introductory Treatment Methods**

Rationale: Material combined with PTH 822.5 and PTH 823.3 (now PTH 800.6 and PTH 802.9).

**PTH 845.6 Neurology I**

Rationale: Combined with PTH 847.6 into new course PTH 805.8.

**PTH 847.6 Neurology II**

Rationale: Combined with PTH 845.6 into new course PTH 805.8.

**PTH 851.1 Case Integration I**

Rationale: Combined with PTH 823.3 into new course PTH 802.9.

**PTH 860.2 Evidence Based Practice I**

Rationale: Combined with PTH 805.3 into new course PTH 801.2.

**PTH 861.2 Professional Practice I**

Rationale: Combined with PTH 822.5 into new course PTH 800.6.

## PTH 863.5 Professional Practice II

Rationale: Combined with PTH 823.3 into new course PTH 802.9.

### School of Environment and Sustainability

**NOTE:** the changes to the admission section are noted for information here – they do not require UCC approval

#### **Major Program Modification:**

#### **Master of Sustainability (M.Ss.)**

#### **Admission Requirements –**

1. a four-year degree, or equivalent, from a recognized college or university in an academic discipline relevant to the proposed field of study, OR a three-year first cycle undergraduate degree, in an academic discipline relevant to the proposed field of study, from an institution that meets the criteria set forth in the [Bologna Declaration](#), will be acceptable as the equivalent of an undergraduate degree.
2. a minimum cumulative weighted average of at least a 70% (~~USask-of-S~~ grade system equivalent) in the last two years of study (e.g. 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. A minimum overall TOEFL score of 86, a minimum overall IELTS score of 6.5, or another approved test as outlined by the [College of Graduate and Postdoctoral Studies](#). **[Note: These are the minimum language proficiency requirements; however, stronger scores are generally expected for successful entry into the M.Ss. program.]**

3. Statement of Intent: Applicants must provide a written Statement of Intent (1000-word maximum) describing why they want to join the program and how their expertise, work and/or volunteer experience make them an ideal candidate for the program. ***This statement is a key component in adjudicating each applicant's suitability for the program.***
4. Letters of reference: Applicants will need to provide three letters of reference—either academic or professional letters. In their letter of reference, all referees should speak to the applicant's ability for success in the MSs.

**Probationary Admission:** Applicants whose qualifications do not meet the minimum requirements or whose academic qualifications are difficult to assess may be admitted on a probationary status to a program. Applicants in this category may be required to take certain preparatory courses to improve their qualifications. In this case they will be required to pay additional fees. The student's status will be reviewed after a specified amount of academic work is completed. If progress is satisfactory, the Program Director or Graduate Chair may recommend to CGPS that the student be considered fully-qualified. Students who do not achieve the probationary conditions may withdraw voluntarily or failing this, will be required to discontinue. In certain exceptional situations, the academic unit may extend the probationary period with a new set of conditions, agreed to by the student and by the College of Graduate and Postdoctoral Studies.

For more information on language proficiency requirements, see the College of Graduate and Postdoctoral Studies [Academic Policies](#).

### **Degree Requirements**

- GPS 960.0 Introduction to Ethics and Integrity
- GPS 961.0 Ethics and Integrity in Human Research, if research involves human subjects
- GPS 962.0 Ethics and Integrity in Animal Research, if research involves animal subjects

All M.Ss. students must complete a total of **30 credit units**, ~~including 9 credit units of core courses:~~

#### **Core Courses (9 credit units)**

##### ~~Required Courses:~~

- ~~• ENVS 818.1 Introduction to Sustainability~~
- ~~• ENVS 834.2 The Art and Practice of Negotiations~~
- ~~• ENVS 850.1 Systems Thinking for Sustainability~~
- ~~• ENVS 882.2 Foundations of Governance for Sustainability~~
- ~~• ENVS 884.1 Fundamentals of Environmental Policy and Law OR ENVS 885.1 Practical Law for Project Development~~
- ~~• ENVS 886.2 Building Understanding in the Age of Reconciliation~~
- ~~• ENVS 990.0 Seminar in Environment and Sustainability~~

~~Student must also declare which field of study they will pursue within the M.Ss—Regenerative Sustainability or Energy Security. Students must complete 21 credit units within their chosen field of study.~~

#### **Regenerative Sustainability (21 credit units)**



Students in the Regenerative Sustainability field of study may choose to pursue either a project or course-based program of study. Students must take the following:

- ~~1. 12 credit units of required courses,~~
- ~~2. a minimum of 3 credit units of electives, and~~
- ~~3. either a 6 credit unit project OR an additional 6 credit units of electives.~~

#### 1) Required Courses (12 credit units)

- ~~• ENVS 805.3 Data Driven Solutions for Sustainability~~
- ENVS 807.3 Sustainability in Theory and Practice
- ~~• ENVS 810.1 Standpoint Reflexivity and Power in Sustainability Problem Solving~~
- ENVS 818.1 Introduction to Sustainability
- ENVS 850.1 Systems Thinking for Sustainability
- ENVS 851.2 Design Thinking for Sustainability
- ENVS 853.3 Regenerative Sustainability
- ENVS 882.2 Foundations of Governance for Sustainability
- ENVS 990.0 Seminar in Environment and Sustainability

2) Electives (minimum 123 credit units): students must choose a minimum of 123 cu of course work from the available graduate courses offered in any given year in at the time of enrolment—with the possibility of special permission to take courses outside of SENS. All electives must be pre-approved by the Program Director through the completion of a “program of studies”.

#### 3) Project or Additional Electives (6 credit units)

- ENVS 992.6 Project in Environment and Sustainability  
OR
- Additional Electives (6 credit units)

#### **Energy Security (~~21 credit units~~)**

The Energy Security field of study is offered as a project-based program of study. Students must take the following:

- ~~1. 15 credit units of required courses and~~

~~2. a 6 credit unit project.~~

1) Required Foundational Courses (915 credit units)

- ENVS 818.1 Introduction to Sustainability
- ENVS 834.2 The Art and Practice of Negotiations
- ENVS 850.1 Systems Thinking for Sustainability
- ENVS 882.2 Foundations of Governance for Sustainability
- ENVS 885.1 Practical Law for Project Development
- ENVS 886.2 Building Understanding in the Age of Reconciliation
- ENVS 990.0 Seminar in Environment and Sustainability

2) Required Energy Security Courses (15 credit units)

- ENVS 840.3 Renewable Energy and Energy Transitions
- ENVS 841.3 Renewable Energy Systems
- ENVS 842.3 Community Economic Analysis and Renewable Energy
- ENVS 843.3 Energy Project Finance
- ENVS 844.3 Community Energy Planning

3) Project (6 credit units)

- ENVS 992.6 Project in Environment and Sustainability

Rationale: These structural changes to our existing MSs program are to optimize delivery of interdisciplinary learning and increase student enrolment within the program. The longer time to complete the program will benefit international students by reducing the intensity and likely also increasing academic performance and eliminate the challenge of working professionals trying to work full-time and complete the program full-time in 1 year. As well, the Regenerative Sustainability stream would be more “student-driven,” allowing more flexibility for students to choose what they want/need to study for their own career aspirations—likely more appealing to students. Students could choose courses by interest/career path and specialize in specific areas.

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### 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.

### Physics

#### Course revision

#### **PHYS 828.3**

Prerequisite change:

Old prerequisite: PHYS 428

New prerequisite: EP 320, PHYS 223, PHYS 356, PHYS 383, and CMPT 141.

Mutually exclusive to (and cross-listed with): PHYS 428

Rationale: This was accidentally submitted incorrectly into the April 2022 UCC. The course should be cross-listed with PHYS 428 and the prerequisite should be fixed to reflect the correct pre-requisite.

## College of Pharmacy and Nutrition

The following curricular change was approved by the College of Pharmacy & Nutrition and is being submitted to the June 2022 University Course Challenge for approval:

### New Course Proposal

#### PHAR 193.0

**Title:** Capstone Year 1

**Description:** This course consists of a capstone (comprehensive) exam at the conclusion of Year 1 of the PharmD program to formatively assess the competencies across all courses in year 1. Sessions and resources will be provided during the term(s) to provide guidance, including how to effectively prepare for a comprehensive exam.

**Restriction(s):** Admission to the Pharm.D. program in the College of Pharmacy & Nutrition

**Prerequisite(s):** PHAR 190.0

**Rationale:** In order to be successful in the PharmD program, and as a practicing pharmacist, the student must be able to bring together learning and concepts from a number of different courses in order to provide optimal patient care. Such an exam will help inform the student about where they are strong and where they may need to improve. The results of the capstone course could provide the basis for any remediation the student may need to undertake in the following year.

**NOTE:** The new course will be required in the Pharm.D. program and the Combined Pharm.D./MBA program. This course requirement will be implemented in 2022-23.

### Doctor of Pharmacy (Pharm.D.) (173 credit units)

## Year 1 (49 credit units)

### Fall Term

- PHAR 110.3
- PHAR 121.3
- PHAR 122.3
- PHAR 153.4
- PHAR 162.3
- PHAR 170.3
- PHAR 190.0

- PHAR 191.1

### **Winter Term**

- PHAR 111.1
- PHAR 112.1
- PHAR 123.3
- PHAR 124.3
- PHAR 152.6
- PHAR 154.3
- PHAR 171.3
- PHAR 192.1

### **Fall and Winter Terms**

- PHAR 188.2
- PHAR 189.2
- **PHAR 193.0**

### **Spring and Summer Terms**

- PHAR 185.4

## **Year 2 (47 credit units)**

### **Fall Term**

- PHAR 224.3
- PHAR 226.3
- PHAR 253.6
- PHAR 262.1
- PHAR 271.3
- PHAR 272.3
- PHAR 290.0
- PHAR 291.1

### **Winter Term**

- 3 credit units of electives, as approved by the College of Pharmacy and Nutrition
- PHAR 212.1
- PHAR 213.3
- PHAR 225.3
- PHAR 255.6

- PHAR 263.1
- PHAR 273.3
- PHAR 292.1

### **Fall and Winter Terms**

- PHAR 288.2

### **Spring and Summer Terms**

- PHAR 285.4

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

### **Fall Term**

- 3 credit units of electives, as approved by the College of Pharmacy and Nutrition
- PHAR 314.3
- PHAR 324.3
- PHAR 358.6
- PHAR 367.1
- PHAR 374.3
- PHAR 390.0
- PHAR 391.1

### **Winter Term**

- 3 credit units of electives, as approved by the College of Pharmacy and Nutrition
- PHAR 315.3
- PHAR 359.6
- PHAR 368.1
- PHAR 375.3
- PHAR 392.1
- PHAR 395.3

### **Fall and Winter Terms**

- PHAR 388.2

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

- PHAR 481.8
- PHAR 482.8
- PHAR 483.8

- PHAR 484.8 or PHAR 485.4 and PHAR 486.4
- PHAR 487.1
- PHAR 488.1
- PHAR 489.1
- PHAR 490.0

## University Course Challenge submission June 2022 (SENS)

On 11 June 2021, School of Environment and Sustainability Faculty Council approved the following motion to add include EVSC 485 as an alternative required course for ENVS 401. The College of Agriculture and Bioresources was consulted on this addition to the Undergraduate Certificate in Sustainability.

**Motion:** That EVSC 485 (Environmental Science Capstone Course) be added as a core course requirement option to ENVS 401. (Carried)

The proposed changes are indicated below in **red**.

### Catalogue Description

The Certificate in Sustainability is intended to give students theoretical, methodological, strategic, and substantive exposure to sustainability-related concepts and practice. Students will choose either a natural resources, community, or food systems focus for their sustainability studies towards the certificate. The certificate will allow students to engage in problem-based, experiential learning across a broad range of sustainability topics. The program will begin in the student's second year with ENVS 201.

### **Certificate in Sustainability (21 credit units)**

#### **Required Courses (6 credit units):**

- [ENVS 201.3](#) Foundations of Sustainability
- [ENVS 401.3](#) Sustainability in Action or [EVSC 485.3](#) Environmental Science Capstone Course

#### **Indigenous Learning for Sustainability (3 credit units):**

Choose **3 credit units** from the following elective courses:

- [ANTH 202.3](#) Anthropological Approaches to Aboriginal Research in Canada
- [ANTH 480.3](#) Indigenous Peoples and Mental Health Anthropological and Related Perspectives
- [ARCH 350.3](#) Introduction to Boreal Forest Archaeology
- [AREC 220.3](#) History of Indigenous Agriculture in Canada
- [COMM 347.3](#) Indigenous Business in Canada
- [DRAM 111.3](#) Practicum I Indigenous Performance Methods
- [ENG 242.3](#) Indigenous Storytelling of the Prairies
- [ENG 243.3](#) Introduction to Indigenous Literatures
- [ENG 335.3](#) The Emergence of Indigenous Literatures in Canada
- [HIST 195.3](#) History Matters Indigenous Perspectives on Canadian History
- [HIST 266.3](#) History Wars Issues in Native Newcomer Relations
- [INDG 107.3](#) Introduction to Canadian Indigenous Studies
- [KIN 306.3](#) Introduction to Indigenous Wellness
- [LING 253.3](#) Indigenous Languages of Canada
- [PLAN 445.3](#) Planning with Indigenous Communities\*



- [POLS 222.3](#) Indigenous Governance and Politics
- INDG 200-Level, 300-Level, 400-level\*

\*These courses may not be used to count as credit for both Indigenous Learning and Area of Focus electives

### Techniques and Tools for Sustainability

Choose **3 credit units** from the following elective courses:

- [ENVE 381.3](#) Sustainability and Environmental Assessment
- [EVSC 203.3](#) Sampling and Laboratory Analysis
- [GEOG 290.3](#) Field Methods and Laboratory Analysis
- [GEOG 385.3](#) Analysis of Environmental Management and Policy Making
- [GEOG 386.3](#) Environmental Impact Assessment
- [INDG 210.3](#) Indigenous Ways of Knowing
- [POLS 256.3](#) Understanding Political Science Research
- [PSY 235.3](#) Research Methods and Design
- [RRM 323.2](#) Resource Data and Environmental Modeling and [RRM 201.1](#) Geographical Information Systems
- [SOC 225.3](#) An Introduction to Survey Research and Data Analysis in Sociology
- [SOC 232.3](#) Methods of Social Research

### Areas of Focus

Students must choose one of the following three areas of focus, in consultation with an advisor:

Please note in each area of focus there are thesis and/or research course options listed. If a student chooses to use one of these courses towards the completion of the certificate it must be demonstrated to the certificate coordinator that the thesis pursued has a focus on sustainability and the theme of the chosen area of focus.

### Natural Resources and Sustainability Focus

Choose one of:

- [BIOL 228.3](#) An Introduction to Ecology and Ecosystems
- [ECON 275.3](#) Economics of Natural Resources
- [ECON 277.3](#) Economics of the Environment
- [ENVE 201.3](#) Principles of Environmental Engineering
- [ENVE 212.2](#) Physical Principles of Plant Biosystems
- [EVSC 210.3](#) Environmental Physics
- [EVSC 220.3](#) Environmental Soil Science
- [GEOG 280.3](#) Environmental Geography
- [PHIL 226.3](#) Environmental Philosophy
- [PHIL 231.3](#) Moral Problems
- [PHIL 236.3](#) Ethics and Technology
- [PLSC 213.3](#) Principles of Plant Ecology

- [TOX 200.3](#) Poisons and Pollutants

Choose one of:

- [ANBI 375.3](#) Animals and the Environment
- AREC 330.3
- [BIOL 373.3](#) Community Ecology
- [CHEM 375.3](#) Environmental Chemistry
- [ECON 376.3](#) Energy Economics
- [EVSC 380.3](#) Grassland Soils and Vegetation
- [GEOG 333.3](#) Global Climate Change
- [GEOG 351.3](#) Northern Environments
- [PLAN 329.3](#) Integrated Water Resource Planning
- [RRM 312.3](#) Natural Resource Management and Indigenous Peoples
- [SLSC 342.3](#) Agronomic Soil Microbiology
- [SLSC 350.3](#) Terrestrial Restoration
- [TOX 301.3](#) Environmental Toxicology

Choose one of:

- [AREC 430.3](#) Advanced Natural Resource Economics
- [BIOL 410.3](#) Current Perspectives in Environmental Biology
- [BIOL 412.3](#) Limnology
- [BIOL 470.3](#) Conservation Biology
- [BIOL 475.3](#) Ecological Toxicology
- [ENVE 432.3](#) Land Management and Reclamation
- [EVSC 421.3](#) Contaminated Site Management and Remediation
- EVSC 430.3
- [EVSC 492.3](#) Research and Term Paper
- [EVSC 494.3](#) Research and Thesis
- [GEOG 490.3](#) Honours Thesis in Hydrology or Geomatics
- [PLSC 413.3](#) Advanced Plant Ecology
- [PLSC 422.3](#) Rangeland Ecology and Management
- PLSC 423.3
- [PLSC 425.3](#) Forest Ecology
- [PLSC 492.3](#) Project Thesis in Plant Sciences
- [PLSC 494.6](#) Research Thesis in Plant Sciences
- [PLSC 492.3](#) Project Thesis in Plant Sciences
- [PLSC 494.3](#) Research Thesis in Plant Sciences

### Community and Sustainability Focus

Elective Course (9 credit units):

Choose one of:

- [ANTH 240.3](#) Cultural Landscapes and Environments
- [ANTH 244.3](#) Political Ecology Anthropology and Global Environmental Issues
- [CPSJ 203.3](#) Cultivating Humanity

- [ECON 275.3](#) Economics of Natural Resources
- [ECON 277.3](#) Economics of the Environment
- [GEOG 208.3](#) World Regional Development
- [GEOG 240.3](#) Sustainable Cities and Regions
- [GEOG 280.3](#) Environmental Geography
- [HIST 257.3](#) The Canadian Prairie to 1905
- [HIST 258.3](#) The Canadian Prairies since 1905
- HIST 263.3
- [HIST 290.3](#) Topics in Environmental History
- [PHIL 226.3](#) Environmental Philosophy
- [PHIL 231.3](#) Moral Problems
- [PHIL 236.3](#) Ethics and Technology
- [POLS 226.3](#) Canadian Public Policy
- PLST 210.3
- [SOC 202.3](#) Environmental Sociology
- [SOC 204.3](#) Rural Sociology
- [SOC 206.3](#) Sociology of Communities and Community Development
- [SOC 227.3](#) Critical Issues in Canadian Society
- [WGST 210.3](#) Gendered Perspectives on Current Events

Choose one of:

- [ANTH 329.3](#) Environmental Anthropology
- [ARCH 357.3](#) The Archaeology of Prairie Settlement
- AREC 330.3
- GEOG 340.3
- GEOG 352.3
- [GEOG 364.3](#) Geography of Environment and Health
- [GEOG 380.3](#) Environmental Geography of the Circumpolar North
- [GEOG 381.3](#) Development in the Canadian North Issues and Challenges
- [PLAN 341.3](#) Urban Planning
- PLAN 342.3
- [PLAN 346.3](#) Introduction to Urban Design
- [POLS 326.3](#) Comparative Public Policy
- [POLS 328.3](#) Public Policy Analysis
- [SOC 309.3](#) Theories of Social Change
- [SOC 344.3](#) Sociology of Women Gender and Development
- [SOC 360.3](#) Globalization and Social Justice

Choose one of:

- [ANBI 475.3](#) Field Studies in Arctic Ecosystems and Aboriginal Peoples
- [ANTH 401.3](#) Independent Research in Anthropology
- [AREC 430.3](#) Advanced Natural Resource Economics
- [AREC 432.3](#) Rural Development Theory and Applications
- [CHEP 402.3](#) Global Health and Local Communities Issues and Approaches
- [CPSJ 400.3](#) Critical Perspectives on Social Justice and the Common Good
- GEOG 464.3
- [GEOG 491.3](#) Honours Thesis in Environment and Planning

- HIST 459.3
- INDG 451.6
- [LAW 444.3](#) Environmental Law
- [PLAN 441.3](#) Challenges in Urban Development
- [PLAN 445.3](#) Planning with Indigenous Communities
- [PLAN 446.3](#) Advanced Urban Design Studio
- [POLS 403.3](#) Advanced Topics in Public Law and Public Policy
- [POLS 422.3](#) Indigenous Governance and Self Determined Sustainable Development
- [SOC 409.3](#) Sociology of Development
- SOC 421.3
- [WGST 411.3](#) Situated Transnational Feminisms

### Food Systems and Sustainability Focus

Elective Course (9 credit units):

Choose one of:

- [AREC 251.3](#) Introduction to Agricultural Policy
- [AGRC 211.3](#) Global Food Security
- [PLSC 235.3](#) Urban Agriculture

Choose one of:

- [ANBI 375.3](#) Animals and the Environment
- [ANSC 301.3](#) Animal Production Tour
- AREC 330.3
- [EVSC 380.3](#) Grassland Soils and Vegetation
- [FABS 371.3](#) Food Biotechnology
- [PLSC 345.3](#) Pesticides and Crop Protection
- [RRM 312.3](#) Natural Resource Management and Indigenous Peoples
- [SLSC 313.3](#) Environmental Soil Chemistry

Choose one of:

- [AREC 432.3](#) Rural Development Theory and Applications
- [AREC 451.3](#) Agricultural Problems and Policies
- [EVSC 492.3](#) Research and Term Paper
- [EVSC 494.6](#) Research and Thesis
- [FABS 401.3](#) Dairy Science and Technology
- FABS 436.3
- FABS 450.3
- [FABS 492.3](#) Literature Thesis
- [FABS 494.3](#) Research Thesis
- [GEOG 491.3](#) Honours Thesis in Environment and Planning
- [PLSC 401.3](#) Sustainable Crop Production

- [PLSC 413.3](#) Advanced Plant Ecology
- [PLSC 418.3](#) Management of Arable Grassland
- [PLSC 422.3](#) Rangeland Ecology and Management
- [PLSC 492.3](#) Project Thesis in Plant Sciences
- [PLSC 494.6](#) Research Thesis in Plant Sciences
- [SLSC 492.3](#) Research and Term Paper
- [SLSC 494.6](#) Research and Thesis
- [SOC 402.3](#) Sociology of Agriculture and Food

## College of Pharmacy & Nutrition and College of Graduate & Postdoctoral Studies

### For Information:

The following minor program changes were duly approved for the Pharm.D. program through college and University Course Challenge processes but were missed being added to the Combined Pharm.D./M.B.A. program:

- Addition of a new course, called PHAR 212.1 *Pharmacy Ethics*, University Course Challenge, December 2020
- Renumbering of PHAR 283.4 to PHAR 285.4 *Experiential Learning Hospital Pharmacy Practice Experience*, University Course Challenge, December 2018 (For Information)

The updated program is being circulated here for information, as follows:

### Doctor of Pharmacy (Pharm.D.) and Master of Business Administration (M.B.A.) Combined Degree Program

#### **Degree Requirements (203 ~~202~~ credit units)**

Students must complete the following course requirements:

#### **Business Administration Courses:**

- [MBA 803.3](#) Business and Society
- [MBA 813.3](#) Strategic Human Resources Management
- [MBA 828.3](#) Tactical Strategy
- [MBA 830.3](#) Operations Management
- [MBA 846.3](#) Introduction to Entrepreneurship and Venture Development
- [MBA 859.4](#) Financial Reporting
- [MBA 862.4](#) Financial Management
- [MBA 863.2](#) International Business or an approved elective from an international partner institution or an Edwards "taught abroad" course
- [MBA 865.3](#) Accounting for Planning and Decision Making
- [MBA 866.2](#) Innovation Management
- [MBA 870.3](#) Corporate Finance
- [MBA 885.3](#) Essential Management Skills
- [MBA 992.3](#) Edwards MBA Capstone Project

#### **Pharmacy Courses:**

- [PHAR 110.3](#) Introduction to Pharmacy and the Health Care System
- [PHAR 111.1](#) Foundations for Practice: Pharmacy Mathematics and Calculations
- [PHAR 112.1](#) Pharmacy Law
- [PHAR 121.3](#) Foundational Sciences 1: Foundational Pathophysiology & Pharmacology

- [PHAR 122.3](#) Foundational Sciences 2: Medicinal Chemistry and Physical Pharmacy
- [PHAR 123.3](#) Foundational Sciences 3: Foundational Pathophysiology and Pharmacology
- [PHAR 124.3](#) Foundational Sciences 4: Introduction to Pharmaceutics
- [PHAR 152.6](#) Pharmacotherapeutics 1
- [PHAR 153.4](#) Self-Care 1: Non-prescription Pharmaceuticals and Supplies
- [PHAR 154.3](#) Self-Care 2: Non-prescription Pharmaceuticals and Supplies
- [PHAR 162.3](#) Pharmacy Practice 1: The Patient Care Process
- [PHAR 170.3](#) Pharmacy Skills Development 1
- [PHAR 171.3](#) Pharmacy Skills Development 2
- [PHAR 185.4](#) Experiential Learning Introductory Community Pharmacy Practice Experience
- [PHAR 188.2](#) Experiential Learning 1
- [PHAR 189.2](#) Service Learning
- [PHAR 190.0](#) Introduction to Year 1
- [PHAR 191.1](#) IPE Activities
- [PHAR 192.1](#) IPE Activities
- [PHAR 212.1](#) Pharmacy Ethics
- [PHAR 213.3](#) Management 1
- [PHAR 224.3](#) Science of Pharmacotherapy 1: Pharmaceutics and Pharmaceutical Biotechnology
- [PHAR 225.3](#) Science of Pharmacotherapy 2: Clinical Applications
- ~~[PHAR 225.3](#) Science of Pharmacotherapy 2: Clinical Applications~~ - Remove - this is a duplicate
- [PHAR 226.3](#) Foundational Sciences 5: Pharmacokinetics
- [PHAR 253.6](#) Pharmacotherapeutics 2
- ~~[PHAR 253.6](#) Pharmacotherapeutics 2~~ – Remove - this is a duplicate
- [PHAR 255.6](#) Pharmacotherapeutics 3
- [PHAR 262.1](#) Pharmacy Practice 2
- [PHAR 263.1](#) Pharmacy Practice 3
- [PHAR 271.3](#) Evidence Based Medicine
- [PHAR 272.3](#) Pharmacy Skills Development 3
- [PHAR 273.3](#) Pharmacy Skills Development 4
- ~~[PHAR 283.4](#) PHAR 285.4~~ Experiential Learning Hospital Pharmacy Practice Experience
- [PHAR 288.2](#) Experiential Learning 2
- [PHAR 290.0](#) Introduction to Year 2
- [PHAR 291.1](#) IPE Activities
- [PHAR 292.1](#) IPE Activities
- [PHAR 314.3](#) Management II
- [PHAR 315.3](#) Issues in Health Care and Pharmacy Practice
- [PHAR 324.3](#) Science of Pharmacotherapy 3: Toxicology
- [PHAR 358.6](#) Pharmacotherapeutics 5
- [PHAR 359.6](#) Pharmacotherapeutics 6
- [PHAR 367.1](#) Pharmacy Practice 5
- [PHAR 368.1](#) Pharmacy Practice 6

- [PHAR 374.3](#) Pharmacy Skills Development 5
- [PHAR 375.3](#) Pharmacy Skills Development 6
- [PHAR 388.2](#) Experiential Learning 3
- [PHAR 390.0](#) Introduction to Year 3
- [PHAR 391.1](#) IPE Activities
- [PHAR 392.1](#) IPE Activities
- [PHAR 395.3](#) Preparing for Patient Care/Complex Cases Capstone
- [PHAR 481.8](#) Advanced Practice Experience 1: Acute Care (Hospital) Experience
- [PHAR 482.8](#) Advanced Practice Experience 2: Community Pharmacy Experience
- [PHAR 483.8](#) Advanced Practice Experience 3: Other Direct Patient Care Experience
- [PHAR 487.1](#) Integrating Seminar
- [PHAR 488.1](#) Integrating Seminar
- [PHAR 489.1](#) Integrating Seminar
- [PHAR 490.0](#) Introduction to Year 4

**Choose either of the following 2 options:**

- 1) [PHAR 484.8](#) Advanced Practice Experience 4: Elective Practice Experience
- 2) PHAR 485.4 and PHAR 486.4