

Academic Programs Committee of Council

University Course Challenge

Scheduled posting: December 2021

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

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

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

Approval:Date of circulation: December 15, 2021Date of effective approval if no challenge received: December 31, 2021

Next scheduled posting:

The next scheduled posting will be January 14, 2022, with a submission deadline of **January 11**, **2022.** Urgent items can be posted on request.

Please direct challenges to both of the following: <u>seanine.warrington@usask.ca</u> in Registrarial Services and <u>amanda.storey@usask.ca</u> in the Governance Office.

College of Agriculture and Bioresources University Course Challenge Submission (December 2021)

The following curricular revisions were approved by the College of Agriculture & Bioresources Undergraduate Affairs Committee on October 20 and November 17, 2021. They are being submitted here for approval:

Course Prerequisite Change

AREC 432.3: -1(3L) Rural Development Theory and Applications

Rural development patterns are investigated in this course using a Regional Economics (including Community Economics) Framework. The class focusses on measurement of rural development, theories of rural development, and business and personal location patterns. Review also includes studies related to central place hierarchy and rural-urban fringe. Review of rural development polocies and economic evaluation of rural development programs is also a part of this class.

Prerequisite(s): ECON 211; some knowledge of macroeconomics preferred AREC 272 or ECON 211; some knowledge of macroeconomics preferred

Note: Students with credit for AGEC 432 or BPBE 432 may not take this course for credit. Students with credit for BPBE 432 may not take this course for credit.

Rationale: The change to the prerequisite reflects the academic preparation required for the course.

Changes to Program Requirements

Agricultural Biology

The revisions to the catalogue for the Agricultural Biology Honours and Agricultural Biology major incorporate revisions to the B.S.A. core, clarify course sequencing, and reflect changes to available courses.

Agricultural Biology

Bachelor of Science in Agriculture (B.S.A.) Honours

Admission to Honours is restricted to students having an approved Honours program, a recommendation from the supervising department, and a Cumulative Weighted Average of 70% or better on a minimum of 60 credit units in B.S.A. credited courses at the time of application. Students must officially apply for admission to an Honours program through the office of the Dean of Agriculture and Bioresources before the start of Year Four at the latest.

Minimum Requirements for Degree (120 credit units)

Completion of a B.S.A. minor (18 credit units) is required with a major in Agricultural Biology.

Year 1 – (30 credit units) Fall Term (15 credit units)

- AGRC 110.3 Scientific Literacy and Communication for the Agricultural Sciences
- AGRC 111.3 Discovery in Plant and Soil Sciences

- AGRC 112.3 Animal Agriculture and Food Science
- AGRC 113.3 Agri Food Issues and Institutions
- AREC 220.3 History of Indigenous Agriculture in Canada or INDG 107.3 Introduction to Canadian Indigenous Studies
- **BIOL 120.3** The Nature of Life
- BIOL 121.3 The Diversity of Life
- CHEM 112.3 General Chemistry I Structure Bonding and Properties of Materials
- CHEM 250.3 Introduction to Organic Chemistry
- ECON 111.3 Introductory Microeconomics

Choose 3 credit units from the areas of Social Science, Humanities or Fine Arts.

- <u>CHIN 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>CLAS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>CREE 100-Level, 200-Level, 300-Level, 400-Level</u>
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100-Level, 200-Level, 300-Level, 400-Level
- <u>GERM 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>HEB 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>HIST 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>HNDI 100-Level, 200-Level, 300-Level, 400-Level</u>
- INTS 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level
- LATN 100-Level, 200-Level, 300-Level, 400-Level
- <u>LIT 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>PHIL 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>RLST 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>RUSS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SNSK 100-Level, 200-Level, 300-Level, 400-Level</u>

- SPAN 100-Level, 200-Level, 300-Level, 400-Level
- <u>UKR 100-Level, 200-Level, 300-Level, 400-Level</u>
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- <u>ECON 100-Level, 200-Level, 300-Level, 400-Level</u>
- GEOG 130.3 Environment Health and Planning
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- <u>IS 100-Level, 200-Level, 300-Level, 400-Level</u>
- LING 100-Level, 200-Level, 300-Level, 400-Level
- PLAN 100-Level, 200-Level, 300-Level, 400-Level
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- <u>PSY 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SOC 100-Level, 200-Level, 300-Level, 400-Level</u>
- SOSC 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level

Any senior-level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

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Fine Arts

- ART 100-Level, 200-Level, 300-Level, 400-Level
- ARTH 100-Level, 200-Level, 300-Level, 400-Level
- DRAM 100-Level, 200-Level, 300-Level, 400-Level
- MUS 100-Level, 200-Level, 300-Level, 400-Level

Year 1 - Winter Term (15 credit units)

- <u>AGRC 112.3</u> Animal Agriculture and Food Science
- <u>AGRC 113.3</u> Agri Food Issues and Institutions
- BIOL 121.3 The Diversity of Life
- <u>CHEM 250.3</u> Introduction to Organic Chemistry

Choose 3 credit units from the following:

Choose 3 credit units from the areas of Social Science, Humanities or Fine Arts (continued from Term 1 if a 6 credit unit course or a new 3 credit unit course for Term 2):

- <u>CHIN 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>CLAS 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>CREE 100-Level, 200-Level, 300-Level, 400-Level</u>
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100-Level, 200-Level, 300-Level, 400-Level
- <u>GERM 100 Level, 200 Level, 300 Level, 400 Level</u>
- HEB 100 Level, 200 Level, 300 Level, 400 Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- HNDI 100-Level, 200-Level, 300-Level, 400-Level
- INTS 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100 Level, 200 Level, 300 Level, 400 Level
- LATN 100-Level, 200-Level, 300-Level, 400-Level
- <u>LIT 100 Level, 200 Level, 300 Level, 400 Level</u>
- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- <u>RLST 100 Level, 200 Level, 300 Level, 400 Level</u>
- RUSS 100-Level, 200-Level, 300-Level, 400-Level
- <u>SNSK 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SPAN 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>UKR 100 Level, 200 Level, 300 Level, 400 Level</u>
- WGST 100 Level, 200 Level, 300 Level, 400 Level

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- MUS 111 is acceptable toward the Humanities requirement.

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100 Level, 200 Level, 300 Level, 400 Level
- ECON 100 Level, 200 Level, 300 Level, 400 Level
- <u>GEOG 130.3 Environment Health and Planning</u>
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- IS 100-Level, 200-Level, 300-Level, 400-Level
- <u>LING 100 Level, 200 Level, 300 Level, 400 Level</u>
- PLAN 100 Level, 200 Level, 300 Level, 400 Level
- POLS 100 Level, 200 Level, 300 Level, 400 Level
- <u>PSY 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SOC 100 Level, 200 Level, 300 Level, 400 Level</u>
- SOSC 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100 Level, 200 Level, 300 Level, 400 Level

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Fine Arts

- ART 100 Level, 200 Level, 300 Level, 400 Level
- ARTH 100 Level, 200 Level, 300 Level, 400 Level
- DRAM 100 Level, 200 Level, 300 Level, 400 Level
- MUS 100-Level, 200-Level, 300-Level, 400-Level

Year 2 (30 credit units)

- BIOL 222.3 The Living Plant
- BIOL 224.3 Animal Body Systems

- **BIOL 226.3** Genes to Genomics
- BMSC 200.3 Biomolecules
- FABS 212.3 Agrifood and Resources Microbiology or BMSC 210.3 Microbiology
- MATH 104.3 Elementary Calculus, MATH 110.3 Calculus I or MATH 125.3 Mathematics for the Life Sciences
- RCM 200.3
- STAT 103.3 Elementary Probability or PHYS 115.3 Physics and the Universe

Note: Credit will not be granted for STAT 103 if it is taken concurrently with or after PLSC 214. If you have already completed PLSC 214, you must take PHYS 115 instead of STAT 103.

Choose 3 credit units from the following:

- ANTH 302.3 The Practice of Ethnography
- ANTH 310.3 Anthropology of Gender
- ANTH 405.3 Anthropology of Disaster and Disruption
- ANTH 421.3 Anthropology in Time: Early Influences
- **ENG 111.3** Literature and Composition Reading Poetry
- **ENG 112.3** Literature and Composition Reading Drama
- ENG 113.3 Literature and Composition Reading Narrative
- ENG 114.3 Literature and Composition Reading Culture
- ENG 120.3 Introduction to Creative Writing
- HIST 115.3 History Matters Ideas and Culture
- HIST 125.3 History Matters Indigenous Colonial and Post Colonial Histories
- HIST 135.3 History Matters Gender Sex and Society
- HIST 145.3 History Matters War Violence and Politics
- HIST 155.3 History Matters Science and Environment
- HIST 165.3 History Matters Health and Society
- HIST 175.3 History Matters Identities and Communities in Transition
- HIST 185.3 History Matters Conflict Law Politics and the State
- HIST 193.3 History Matters Topics in Canadian History
- HIST 194.3 History Matters Topics in European History

- INTS 203.3 Cultivating Humanity
- PHIL 120.3 Knowledge Mind and Existence
- PHIL 121.3 Introduction to World Philosophies
- PHIL 133.3 Introduction to Ethics and Values
- PHIL 208.3 Ancient Philosophy Presocratics to Plato
- PHIL 233.3 Ethical Theory
- POLS 245.3 Politics of Africa
- POLS 323.3 First Nations Policies and Programs
- POLS 328.3 Public Policy Analysis
- POLS 333.3 Theory and Politics of Law
- POLS 336.3 Justice and Democracy
- POLS 422.3 First Nations Governance
- POLS 461.3 Topics in Global Politics
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 355.3 Research in Advanced Cognitive Science
- RLST 280.3 Methodologies and Approaches to Study of Religions
- RLST 362.3 Monsters and Mischief Makers

- <u>BIOC 200-Level, 300-Level, 400-Level</u>
- BMSC 230.3 Metabolism
- <u>BMSC 240.3</u> Laboratory Techniques

Choose 3 credit units of Restricted Electives

Students are required to complete one of the approved minors for the Bachelor of Science in Agriculture (B.S.A.) degree within the College of Agriculture and Bioresources. Completion of the minor requirements may satisfy 18 credit units of the Restricted Electives requirement. At least 12 credit units in the minor must be chosen from courses that are not specifically listed as required for the major. The additional credit units must be chosen from:

- ANBI 470.3 Applied Animal Biotechnology
- ANSC 313.3 Animal Breeding and Genetics
- ANSC 315.3 Animal and Poultry Nutrition

- <u>BIOL 200-Level, 300-Level, 400-Level</u>
- FABS 200-Level, 300-Level, 400-Level
- <u>PLSC 200-Level, 300-Level, 400-Level</u>
- **<u>SLSC232.3</u>** Soil Genesis and Classification
- SLSC 240.3 Agricultural Soil Science
- **<u>SLSC312.3</u>** Soil Fertility and Fertilizers
- SLSC 444.3 Soil Ecology
- SLSC 460.3 Forest Soils
- VBMS 314.3 Comparative Anatomy of Domestic Animals
- VBMS 324.3 Animal Physiology I
- VBMS 325.3 Animal Physiology II
- VLAC 411.3 Diseases of Livestock
- VTPA 412.3 Diseases of Poultry
- other courses as approved by the program advisor

Years 3 and 4 (60 credit units)

- <u>BIOL 228.3</u> An Introduction to Ecology and Ecosystems or <u>PLSC 213.3</u> Principles of Plant Ecology (<u>BIOL 228.3</u> An Introduction to Ecology and Ecosystems is recommended for the Honours program in Agricultural Biology)
- <u>BMSC 220.3</u> Cell Biology or <u>BIOL 317.3</u> Fundamentals of Animal Physiology or <u>BIOL 331.3</u> Plant Physiology
- PLSC 214.3 Statistical Methods or STAT 245.3 Introduction to Statistical Methods

Choose 3 credit units from the following:

- **BIOL 361.3** Vertebrate Biology
- **BIOL 365.3** Insect Diversity and Evolution
- BIOL 436.3 Animal Parasitology
- BIOL 451.3 Ichthyology
- **BIOL 455.3** Mammal Diversity and Evolution
- **BIOL 458.3** Ornithology
- BIOL 466.3 Aquatic Insects
- BIOL 472.3 Animal Behaviour

Selection will depend upon the student's area of interest, availability of a research project, and permission of the department involved.

- ANSC 494.6 Research Thesis in Animal Science
- EVSC 494.6 Research and Thesis
- FABS 494.6 Research Thesis
- PLSC 494.6 Research Thesis in Plant Sciences
- <u>SLSC494.6</u> Research and Thesis

Or one of <u>ANSC 492.3</u> Thesis in Animal Science, <u>EVSC 492.3</u> Research and Term Paper, <u>FABS</u> <u>492.3</u> Literature Thesis, <u>PLSC 492.3</u> Project Thesis in Plant Sciences, or <u>SLSC 492.3</u> Research and Term Paper and 3 credit units at the 300-level or higher from Restricted Electives.

Choose 9 credit units from the following:

- **<u>BIOL 323.3</u>** Plant Systematics and Evolution
- BIOL 324.3 Plants and Human Affairs
- **BIOL 342.3** Fungi Environment and People
- **<u>BIOL 345.3</u>** Introductory Plant Pathology
- BIOL 365.3 Insect Diversity and Evolution
- BIOL 420.3 Molecular Biology of Plants
- BIOL 421.3 Functional Genomics
- BIOL 424.3
- BIOL 436.3 Animal Parasitology
- BIOL 470.3 Conservation Biology
- BIOL 475.3 Ecological Toxicology

Restricted Electives (24 credit units)

Direct entry students are required to select a minor in one of the fields of specialization within the College of Agriculture and Bioresources or an approved cross college minor. Students are required to complete one of the approved minors for the Bachelor of Science in Agriculture (B.S.A.) degree within the College of Agriculture and Bioresources. Completion of the minor requirements may satisfy 18 credit units of the Restricted Electives requirement. At least 12 credit units in the minor must be chosen from courses that are not specifically listed as required for the major. The additional credit units must be chosen from:

• ANBI 470.3 Applied Animal Biotechnology

- ANSC 313.3 Animal Breeding and Genetics
- ANSC 315.3 Animal and Poultry Nutrition
- BIOL 200-Level, 300-Level, 400-Level
- FABS 200-Level, 300-Level, 400-Level
- <u>PLSC 200-Level, 300-Level, 400-Level</u>
- **SLSC232.3** Soil Genesis and Classification
- <u>SLSC 240.3</u> Agricultural Soil Science
- **SLSC312.3** Soil Fertility and Fertilizers

SLSC 343.3

- SLSC 444.3 Soil Ecology
- SLSC460.3 Forest Soils
- VBMS 314.3 Comparative Anatomy of Domestic Animals
- VBMS 324.3 Animal Physiology I
- VBMS 325.3 Animal Physiology II
- VLAC 411.3 Diseases of Livestock
- VTPA 412.3 Diseases of Poultry
- other courses as approved by the program advisor

Open Electives

Choose 9 credit units of open electives

Agricultural Biology

Bachelor of Science in Agriculture (B.S.A.)

Minimum Requirements for Degree (120 credit units)

Completion of a B.S.A. minor is required with a major in Agricultural Biology.

Year 1 – 30 credit units Fall Term (15 credit units)

- AGRC 110.3 Scientific Literacy and Communication for the Agricultural Sciences
- AGRC 111.3 Discovery in Plant and Soil Sciences
- AGRC 112.3 Animal Agriculture and Food Science
- AGRC 113.3 Agri Food Issues and Institutions

- AREC 220.3 History of Indigenous Agriculture in Canada or INDG 107.3 Introduction to Canadian Indigenous Studies
- **BIOL 120.3** The Nature of Life
- BIOL 121.3 The Diversity of Life
- <u>CHEM 112.3</u> General Chemistry I Structure Bonding and Properties of Materials
- CHEM 250.3 Introduction to Organic Chemistry
- ECON 111.3 Introductory Microeconomics

Choose 3 credit units from the areas of Social Science, Humanities or Fine Arts.

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- GERM 100-Level, 200-Level, 300-Level, 400-Level
- HEB 100-Level, 200-Level, 300-Level, 400-Level
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- <u>LIT 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>PHIL 100-Level, 200-Level, 300-Level, 400-Level</u>
- RLST 100-Level, 200-Level, 300-Level, 400-Level
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- <u>SNSK 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SPAN 100-Level, 200-Level, 300-Level, 400-Level</u>
- UKR 100-Level, 200-Level, 300-Level, 400-Level

- WGST 100-Level, 200-Level, 300-Level, 400-Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- ECON 100-Level, 200-Level, 300-Level, 400-Level
- **GEOG 130.3** Environment Health and Planning
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- <u>IS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>LING 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>PLAN 100-Level, 200-Level, 300-Level, 400-Level</u>
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- <u>PSY 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SOC 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SOSC 100-Level, 200-Level, 300-Level, 400-Level</u>
- WGST 100-Level, 200-Level, 300-Level, 400-Level

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- <u>ARTH 100-Level, 200-Level, 300-Level, 400-Level</u>
- DRAM 100-Level, 200-Level, 300-Level, 400-Level
- MUS 100-Level, 200-Level, 300-Level, 400-Level

Year 1 - Winter Term (15 credit units)

<u>AGRC 112.3</u> Animal Agriculture and Food Science

- <u>AGRC 113.3</u> Agri Food Issues and Institutions
- BIOL 121.3 The Diversity of Life
- CHEM 250.3 Introduction to Organic Chemistry

Choose 3 credit units from the areas of Social Science, Humanities or Fine Arts (continued from Term 1 if a 6 credit unit course or a new 3 credit unit course for Term 2):

- -CHIN 100 Level, 200 Level, 300 Level, 400 Level
- <u>CLAS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>CREE 100 Level, 200 Level, 300 Level, 400 Level</u>
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- HNDI 100 Level, 200 Level, 300 Level, 400 Level
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- JPNS 100 Level, 200 Level, 300 Level, 400 Level
- LATN 100-Level, 200-Level, 300-Level, 400-Level
- <u>LIT 100-Level, 200-Level, 300-Level, 400-Level</u>
- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- <u>RLST 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>RUSS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SNSK 100-Level, 200-Level, 300-Level, 400-Level</u>
- SPAN 100-Level, 200-Level, 300-Level, 400-Level
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- WGST 100-Level, 200-Level, 300-Level, 400-Level
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MUS 111 is acceptable toward the Humanities requirement.

Social Sciences

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100 Level, 200 Level, 300 Level, 400 Level
- <u>ECON 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>GEOG 130.3</u> Environment Health and Planning
- INDG 100 Level, 200 Level, 300 Level, 400 Level
- IS 100-Level, 200-Level, 300-Level, 400-Level
- LING 100 Level, 200 Level, 300 Level, 400 Level
- PLAN 100 Level, 200 Level, 300 Level, 400 Level
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- ARTH 100 Level, 200 Level, 300 Level, 400 Level
- DRAM 100-Level, 200-Level, 300-Level, 400-Level
- MUS 100 Level, 200 Level, 300 Level, 400 Level

Year 2 (30 credit units)

- BIOL 222.3 The Living Plant
- **BIOL 224.3** Animal Body Systems
- BIOL 226.3 Genes to Genomics

- **BMSC 200.3** Biomolecules
- <u>FABS 212.3</u> Agrifood and Resources Microbiology or <u>BMSC 210.3</u> Microbiology
- MATH 104.3 Elementary Calculus, MATH 110.3 Calculus I or MATH 125.3 Mathematics for the Life Sciences
- RCM 200.3
- STAT 103.3 Elementary Probability or PHYS 115.3 Physics and the Universe

Note: Credit will not be granted for STAT 103 if it is taken concurrently with or after PLSC 214. If you have already completed PLSC 214, you must take PHYS 115 instead of STAT 103.

Choose 3 credit units from the following:

- ANTH 302.3 The Practice of Ethnography
- ANTH 310.3 Anthropology of Gender
- ANTH 405.3 Anthropology of Disaster and Disruption
- ANTH 421.3 Anthropology in Time: Early Influences
- ENG 111.3 Literature and Composition Reading Poetry
- ENG 112.3 Literature and Composition Reading Drama
- ENG 113.3 Literature and Composition Reading Narrative
- **ENG 114.3** Literature and Composition Reading Culture
- **ENG 120.3** Introduction to Creative Writing
- HIST 115.3 History Matters Ideas and Culture
- HIST 125.3 History Matters Indigenous Colonial and Post Colonial Histories
- HIST 135.3 History Matters Gender Sex and Society
- HIST 145.3 History Matters War Violence and Politics
- HIST 155.3 History Matters Science and Environment
- HIST 165.3 History Matters Health and Society
- HIST 175.3 History Matters Identities and Communities in Transition
- HIST 185.3 History Matters Conflict Law Politics and the State
- HIST 193.3 History Matters Topics in Canadian History
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- INTS 203.3 Cultivating Humanity

- PHIL 120.3 Knowledge Mind and Existence
- PHIL 121.3 Introduction to World Philosophies
- PHIL 133.3 Introduction to Ethics and Values
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- PHIL 233.3 Ethical Theory
- POLS 245.3 Politics of Africa
- POLS 323.3 First Nations Policies and Programs
- POLS 328.3 Public Policy Analysis
- POLS 333.3 Theory and Politics of Law
- POLS 336.3 Justice and Democracy
- POLS 422.3 First Nations Governance
- POLS 461.3 Topics in Global Politics
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 355.3 Research in Advanced Cognitive Science
- RLST 280.3 Methodologies and Approaches to Study of Religions
- RLST 362.3 Monsters and Mischief Makers

- <u>BIOC 200-Level, 300-Level, 400-Level</u>
- BMSC 230.3 Metabolism
- BMSC 240.3 Laboratory Techniques

Choose 3 credit units of Restricted Electives

Students are required to complete one of the approved minors for the Bachelor of Science in Agriculture (B.S.A.) degree within the College of Agriculture and Bioresources. Completion of the minor requirements may satisfy 18 credit units of the Restricted Electives requirement. At least 12 credit units in the minor must be chosen from courses that are not specifically listed as required for the major. The additional credit units must be chosen from:

- ANBI 470.3 Applied Animal Biotechnology
- ANSC 313.3 Animal Breeding and Genetics
- ANSC 315.3 Animal and Poultry Nutrition
- <u>BIOL 200-Level, 300-Level, 400-Level</u>

- FABS 200-Level, 300-Level, 400-Level
- <u>PLSC 200-Level, 300-Level, 400-Level</u>
- **<u>SLSC232.3</u>** Soil Genesis and Classification
- SLSC 240.3 Agricultural Soil Science
- SLSC 312.3 Soil Fertility and Fertilizers
- SLSC 444.3 Soil Ecology
- **SLSC 460.3** Forest Soils
- **VBMS 314.3** Comparative Anatomy of Domestic Animals
- VBMS 324.3 Animal Physiology I
- VBMS 325.3 Animal Physiology II
- VLAC 411.3 Diseases of Livestock
- VTPA 412.3 Diseases of Poultry
- other courses as approved by the program advisor

Years 3 and 4 (60 credit units)

- <u>BIOL 228.3</u> An Introduction to Ecology and Ecosystems or <u>PLSC 213.3</u> Principles of Plant Ecology (<u>BIOL 228.3</u> An Introduction to Ecology and Ecosystems is recommended for the Honours program in Agricultural Biology)
- <u>BMSC 220.3</u> Cell Biology or <u>BIOL 317.3</u> Fundamentals of Animal Physiology or <u>BIOL 331.3</u> Plant Physiology
- PLSC 214.3 Statistical Methods or STAT 245.3 Introduction to Statistical Methods

Choose 3 credit units from the following:

- BIOL 361.3 Vertebrate Biology
- **BIOL 365.3** Insect Diversity and Evolution
- **BIOL 436.3** Animal Parasitology
- BIOL 451.3 Ichthyology
- **BIOL 455.3** Mammal Diversity and Evolution
- **BIOL 458.3** Ornithology
- BIOL 466.3 Aquatic Insects
- BIOL 472.3 Animal Behaviour

Choose 3 credit units from the following:

Selection will depend upon the student's area of interest.

- ANSC 492.3 Thesis in Animal Science
- EVSC 492.3 Research and Term Paper
- FABS 492.3 Literature Thesis
- PLSC 492.3 Project Thesis in Plant Sciences
- <u>SLSC 492.3</u> Research and Term Paper

Restricted Electives (30 credit units)

Direct entry students are required to select a minor in one of the fields of specialization within the College of Agriculture and Bioresources or an approved cross-college minor. Completion of the minor requirements will satisfy 18 credit units of the Restricted Electives requirement. At least 12 credit units in the minor must be courses that are not specifically listed as required for the major. The additional credit units must be chosen from:

- ANBI 470.3 Applied Animal Biotechnology
- ANSC 313.3 Animal Breeding and Genetics
- ANSC 315.3 Animal and Poultry Nutrition
- <u>BIOL 200-Level, 300-Level, 400-Level</u>
- FABS 200-Level, 300-Level, 400-Level
- <u>PLSC 200-Level, 300-Level, 400-Level</u>
- **SLSC232.3** Soil Genesis and Classification
- <u>SLSC240.3</u> Agricultural Soil Science
- **<u>SLSC312.3</u>** Soil Fertility and Fertilizers
- <u>SLSC 343.3</u>
- SLSC 444.3 Soil Ecology
- SLSC460.3 Forest Soils
- VBMS 314.3 Comparative Anatomy of Domestic Animals
- VBMS 324.3 Animal Physiology I
- VBMS 325.3 Animal Physiology II
- VLAC 411.3 Diseases of Livestock
- VTPA 412.3 Diseases of Poultry
- other courses as approved by the program advisor

Open Electives

Choose 15 credit units of open electives

Rationale: These revisions help to increase flexibility in course scheduling, clarify course sequencing, and bring the Agricultural Biology Honours and Agricultural Biology major in-line with the other B.S.A. majors.

Animal Science

The revisions to the catalogue for the Animal Science major incorporate revisions to the B.S.A. core, clarify course sequencing, and reflect changes to available courses.

Animal Science

Bachelor of Science in Agriculture (B.S.A.)

Year 1 (30 credit units) - Fall Term (15 credit units)

- AGRC 110.3 Scientific Literacy and Communication for the Agricultural Sciences
- AGRC 111.3 Discovery in Plant and Soil Sciences
- AGRC 112.3 Animal Agriculture and Food Science
- AGRC 113.3 Agri Food Issues and Institutions
- AREC 220.3 History of Indigenous Agriculture in Canada or INDG 107.3 Introduction to Canadian Indigenous Studies
- BIOL 120.3 The Nature of Life
- BIOL 224.3 Animal Body Systems
- <u>CHEM 112.3</u> General Chemistry I Structure Bonding and Properties of Materials
- CHEM 250.3 Introduction to Organic Chemistry
- ECON 111.3 Introductory Microeconomics

Choose 3 credit units from the following:

Choose 3 credit units from the areas of Social Science, Humanities or Fine Arts.

- <u>CHIN 100-Level, 200-Level, 300-Level, 400-Level</u>
- CLAS 100-Level, 200-Level, 300-Level, 400-Level
- <u>CREE 100-Level, 200-Level, 300-Level, 400-Level</u>
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100-Level, 200-Level, 300-Level, 400-Level

- <u>GERM 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>HEB 100-Level, 200-Level, 300-Level, 400-Level</u>
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- HNDI 100-Level, 200-Level, 300-Level, 400-Level
- INTS 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level
- LATN 100-Level, 200-Level, 300-Level, 400-Level
- <u>LIT 100-Level, 200-Level, 300-Level, 400-Level</u>
- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- RLST 100-Level, 200-Level, 300-Level, 400-Level
- <u>RUSS 100-Level, 200-Level, 300-Level, 400-Level</u>
- SNSK 100-Level, 200-Level, 300-Level, 400-Level
- SPAN 100-Level, 200-Level, 300-Level, 400-Level
- UKR 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

- <u>ANTH 100-Level, 200-Level, 300-Level, 400-Level</u>
- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- ECON 100-Level, 200-Level, 300-Level, 400-Level
- GEOG 130.3 Environment Health and Planning
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- <u>IS 100-Level, 200-Level, 300-Level, 400-Level</u>
- LING 100-Level, 200-Level, 300-Level, 400-Level
- PLAN 100-Level, 200-Level, 300-Level, 400-Level
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- <u>PSY 100-Level, 200-Level, 300-Level, 400-Level</u>

- <u>SOC 100-Level, 200-Level, 300-Level, 400-Level</u>
- SOSC 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level

Any senior-level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

Fine Arts

- ART 100-Level, 200-Level, 300-Level, 400-Level
- ARTH 100-Level, 200-Level, 300-Level, 400-Level
- DRAM 100-Level, 200-Level, 300-Level, 400-Level
- MUS 100-Level, 200-Level, 300-Level, 400-Level

Year 1 - Winter Term (15 credit units)

- <u>AGRC 112.3</u> Animal Agriculture and Food Science
- <u>AGRC 113.3</u> Agri Food Issues and Institutions
- BIOL 224.3 Animal Body Systems
- <u>CHEM 250.3</u> Introduction to Organic Chemistry

Choose 3 credit units from the following:

Choose 3 credit units from the areas of Social Science, Humanities or Fine Arts (continued from Term 1 if a 6 credit unit course or a new 3 credit unit course for Term 2).

- <u>CHIN 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>CLAS 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>CREE 100 Level, 200 Level, 300 Level, 400 Level</u>
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100 Level, 200 Level, 300 Level, 400 Level
- GERM 100-Level, 200-Level, 300-Level, 400-Level
- HEB 100 Level, 200 Level, 300 Level, 400 Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level

- HNDI 100 Level, 200 Level, 300 Level, 400 Level
- INTS 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level
- <u>LATN 100 Level, 200 Level, 300 Level, 400 Level</u>
- LIT 100-Level, 200-Level, 300-Level, 400-Level
- PHIL 100 Level, 200 Level, 300 Level, 400 Level
- <u>RLST 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>RUSS 100 Level, 200 Level, 300 Level, 400 Level</u>
- SNSK 100 Level, 200 Level, 300 Level, 400 Level
- SPAN 100 Level, 200 Level, 300 Level, 400 Level
- <u>UKR 100 Level, 200 Level, 300 Level, 400 Level</u>
- WGST 100 Level, 200 Level, 300 Level, 400 Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100 Level, 200 Level, 300 Level, 400 Level
- ECON 100 Level, 200 Level, 300 Level, 400 Level
- <u>GEOG 130.3 Environment Health and Planning</u>
- INDG 100 Level, 200 Level, 300 Level, 400 Level
- <u>IS 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>LING 100 Level, 200 Level, 300 Level, 400 Level</u>
- PLAN 100-Level, 200-Level, 300-Level, 400-Level
- POLS 100 Level, 200 Level, 300 Level, 400 Level
- <u>PSY 100-Level, 200-Level, 300-Level, 400-Level</u>
- SOC 100-Level, 200-Level, 300-Level, 400-Level
- <u>SOSC 100 Level, 200 Level, 300 Level, 400 Level</u>
- WGST 100 Level, 200 Level, 300 Level, 400 Level

Any senior level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

Fine Arts

- ART 100-Level, 200-Level, 300-Level, 400-Level
- <u>ARTH 100-Level, 200-Level, 300-Level, 400-Level</u>
- DRAM 100 Level, 200 Level, 300 Level, 400 Level
- MUS 100-Level, 200-Level, 300-Level, 400-Level

Year 2 (30 credit units)

- ANSC 212.3 Livestock and Poultry Production
- ANSC 313.3 Animal Breeding and Genetics
- BMSC 200.3 Biomolecules
- BMSC 230.3 Metabolism
- FABS 212.3 Agrifood and Resources Microbiology or <u>BMSC 210.3</u> Microbiology
- MATH 104.3 Elementary Calculus or equivalent, MATH 110.3 Calculus I, or MATH 125.3 Mathematics for the Life Sciences
- PLSC 214.3 Statistical Methods
- RCM 200.3

Choose 3 credit units from the following:

- ANTH 302.3 The Practice of Ethnography
- ANTH 310.3 Anthropology of Gender
- ANTH 405.3 Anthropology of Disaster and Disruption
- ANTH 421.3 Anthropology in Time: Early Influences
- **ENG 111.3** Literature and Composition Reading Poetry
- ENG 112.3 Literature and Composition Reading Drama
- ENG 113.3 Literature and Composition Reading Narrative
- ENG 114.3 Literature and Composition Reading Culture
- ENG 120.3 Introduction to Creative Writing

- HIST 115.3 History Matters Ideas and Culture
- HIST 125.3 History Matters Indigenous Colonial and Post Colonial Histories
- HIST 135.3 History Matters Gender Sex and Society
- HIST 145.3 History Matters War Violence and Politics
- HIST 155.3 History Matters Science and Environment
- HIST 165.3 History Matters Health and Society
- HIST 175.3 History Matters Identities and Communities in Transition
- HIST 185.3 History Matters Conflict Law Politics and the State
- HIST 193.3 History Matters Topics in Canadian History
- HIST 194.3 History Matters Topics in European History
- INTS 203.3 Cultivating Humanity
- PHIL 120.3 Knowledge Mind and Existence
- PHIL 121.3 Introduction to World Philosophies
- PHIL 133.3 Introduction to Ethics and Values
- PHIL 208.3 Ancient Philosophy Presocratics to Plato
- PHIL 233.3 Ethical Theory
- POLS 245.3 Politics of Africa
- POLS 323.3 First Nations Policies and Programs
- POLS 328.3 Public Policy Analysis
- POLS 333.3 Theory and Politics of Law
- POLS 336.3 Justice and Democracy
- POLS 422.3 First Nations Governance
- POLS 461.3 Topics in Global Politics
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 355.3 Research in Advanced Cognitive Science
- RLST 280.3 Methodologies and Approaches to Study of Religions
- RLST 362.3 Monsters and Mischief Makers

Choose 36 credit units of restricted electives

• ANBI 298.3 Special Topics

- ANBI 320.3 Equine Science
- ANBI 360.3 Canine and Feline Science
- ANBI 375.3 Animals and the Environment
- ANBI 398.3 Special Topics
- ANBI 411.3 Behaviour of Domestic Animals
- ANBI 420.3 Comparative Animal Endocrinology
- ANBI 470.3 Applied Animal Biotechnology
- ANBI 471.3 Animal Microbiomes and Health
- ANBI 475.3 Field Studies in Arctic Ecosystems and Aboriginal Peoples
- ANBI 498.3 Special Topics
- ANSC 298.3 Special Topics
- ANSC 301.3 Animal Production Tour
- ANSC 355.3 Sheep and Goat Management
- ANSC 398.3 Special Topics
- <u>ANSC 485.3</u> Swine Production and Management
- ANSC 494.3 Research Thesis in Animal Science
- ANSC 498.3 Special Topics
- AREC 220.3 History of Indigenous Agriculture in Canada
- AREC 222.3 Introduction to Farm Business Management
- AREC 343.3 Grain and Livestock Marketing
- BINF 151.3 Computing in the Biological Sciences
- BIOL 222.3 The Living Plant
- BIOL 226.3 Genes to Genomics
- **<u>BIOL 316.3</u>** Molecular Genetics of Eukaryotes
- BIOL 424.3
- BIOL 430.3 Neurobiology of Behaviour
- BIOL 451.3 Ichthyology
- **BIOL 455.3** Mammal Diversity and Evolution
- BIOL 458.3 Ornithology

- **BIOL 472.3** Animal Behaviour
- <u>BLE 205.3</u> Agricultural Machinery Management
- BLE 303.3 Principles of Food and Bioproducts Engineering
- BLE 307.3
- BMIS310.3
- BMIS 308.3 An Introduction to Microbial Pathogens
- <u>BMIS 340.3</u> Introductory Molecular Biology
- BMIS 436.3
- BMSC 220.3 Cell Biology
- BMSC 240.3 Laboratory Techniques
- COMM 101.3 Introduction to Business
- <u>COMM 105.3</u> Introduction to Organizational Behaviour
- COMM 201.3 Introduction to Financial Accounting
- COMM 204.3 Introduction to Marketing
- <u>COMM 304.3</u> Introduction to Business Law
- COMM 404.3 Business Law
- FABS 110.3 The Science of Food
- FABS 325.3 Food Microbiology and Safety
- •___FABS 450.3
- FABS 457.3 Meat Science and Technology
- PHYS 115.3 Physics and the Universe
- PLSC 213.3 Principles of Plant Ecology
- PLSC 405.3 Genetics of Plant Populations
- PLSC 418.3 Management of Arable Grassland
- PLSC 420.3 Grain Chemistry and Technology
- PLSC 422.3 Rangeland Ecology and Management
- PLSC 423.3 Landscape Ecology and Vegetation Management
- RCM 400.3 Rhetorical Theory and Practice of Persuasion
- RCM 401.3 Oral Rhetoric

- RCM 402.3 Interpersonal Communication and Rhetoric
- RCM 404.3 Leadership as Communication
- RCM 406.3 Studies in Communication Series
- RCM 407.3 Rhetorical Editing
- RCM 408.3 Rhetorical Composition Writing for the Public
- RCM 409.3 Negotiation as Rhetorical Practice
- RCM 410.3 Rhetoric of Science and Technology
- RCM 495.3 Rhetorical Peer Mentorship
- RRM 312.3 Natural Resource Management and Indigenous Peoples
- TOX 300.3 General Principles of Toxicology
- TOX 402.3 Systemic Toxicology
- VBMS 314.3 Comparative Anatomy of Domestic Animals
- VLAC 411.3 Diseases of Livestock
- VTPA 412.3 Diseases of Poultry
- or courses approved by an Animal Science program advisor

Years 3 and 4 (60 credit units)

- ANSC 315.3 Animal and Poultry Nutrition
- ANSC 316.3 Feed Technology and Swine Production
- ANSC 410.3 Cow Calf Management
- ANSC 430.3 Intensive Management of Beef Cattle
- ANSC 440.3 Poultry Production
- ANSC 460.3 Intensive Management of Dairy Cattle
- ANSC 485.3 Swine Production and Management
- <u>ANSC 492.3</u> Thesis in Animal Science or <u>ANSC 494.6</u> Research Thesis in Animal Science (3 credit units count as Restricted Elective)
- VBMS 324.3 Animal Physiology I
- VBMS 325.3 Animal Physiology II

Choose 12 credit units of restricted electives from the following:

• ANBI 298.3 Special Topics

- ANBI 320.3 Equine Science
- ANBI 360.3 Canine and Feline Science
- ANBI 375.3 Animals and the Environment
- ANBI 398.3 Special Topics
- ANBI 411.3 Behaviour of Domestic Animals
- ANBI 420.3 Comparative Animal Endocrinology
- ANBI 470.3 Applied Animal Biotechnology
- ANBI 471.3 Animal Microbiomes and Health
- ANBI 475.3 Field Studies in Arctic Ecosystems and Aboriginal Peoples
- ANBI 498.3 Special Topics
- ANSC 298.3 Special Topics
- ANSC 301.3 Animal Production Tour
- ANSC 355.3 Sheep and Goat Management
- ANSC 398.3 Special Topics
- <u>ANSC 485.3</u> Swine Production and Management
- ANSC 494.3 Research Thesis in Animal Science
- ANSC 498.3 Special Topics
- AREC 220.3 History of Indigenous Agriculture in Canada
- AREC 222.3 Introduction to Farm Business Management
- AREC 343.3 Grain and Livestock Marketing
- BINF 151.3 Computing in the Biological Sciences
- BIOL 222.3 The Living Plant
- BIOL 226.3 Genes to Genomics
- **<u>BIOL 316.3</u>** Molecular Genetics of Eukaryotes
- BIOL 424.3
- BIOL 430.3 Neurobiology of Behaviour
- BIOL 451.3 Ichthyology
- **BIOL 455.3** Mammal Diversity and Evolution
- BIOL 458.3 Ornithology

- **BIOL 472.3** Animal Behaviour
- <u>BLE 205.3</u> Agricultural Machinery Management
- BLE 303.3 Principles of Food and Bioproducts Engineering
- BLE 307.3
- BMIS310.3
- BMIS 308.3 An Introduction to Microbial Pathogens
- <u>BMIS 340.3</u> Introductory Molecular Biology
- BMIS 436.3
- BMSC 220.3 Cell Biology
- BMSC 240.3 Laboratory Techniques
- COMM 101.3 Introduction to Business
- <u>COMM 105.3</u> Introduction to Organizational Behaviour
- COMM 201.3 Introduction to Financial Accounting
- COMM 204.3 Introduction to Marketing
- <u>COMM 304.3</u> Introduction to Business Law
- COMM 404.3 Business Law
- FABS 110.3 The Science of Food
- FABS 325.3 Food Microbiology and Safety
- •___FABS 450.3
- FABS 457.3 Meat Science and Technology
- PHYS 115.3 Physics and the Universe
- PLSC 213.3 Principles of Plant Ecology
- PLSC 405.3 Genetics of Plant Populations
- PLSC 418.3 Management of Arable Grassland
- PLSC 420.3 Grain Chemistry and Technology
- PLSC 422.3 Rangeland Ecology and Management
- PLSC 423.3 Landscape Ecology and Vegetation Management
- RCM 400.3 Rhetorical Theory and Practice of Persuasion
- RCM 401.3 Oral Rhetoric

- RCM 402.3 Interpersonal Communication and Rhetoric
- RCM 404.3 Leadership as Communication
- RCM 406.3 Studies in Communication Series
- RCM 407.3 Rhetorical Editing
- RCM 408.3 Rhetorical Composition Writing for the Public
- RCM 409.3 Negotiation as Rhetorical Practice
- RCM 410.3 Rhetoric of Science and Technology
- RCM 495.3 Rhetorical Peer Mentorship
- RRM 312.3 Natural Resource Management and Indigenous Peoples
- TOX 300.3 General Principles of Toxicology
- TOX 402.3 Systemic Toxicology
- VBMS 314.3 Comparative Anatomy of Domestic Animals
- VLAC 411.3 Diseases of Livestock
- VTPA 412.3 Diseases of Poultry
- or courses approved by an Animal Science program advisor

Open Electives

• Choose 18 credit units of open electives

Rationale These revisions help to increase flexibility in course scheduling, clarify course sequencing, and bring the Animal Science major in-line with the other B.S.A. majors.

Animal Bioscience

BINF 151.3 has been added to the list of restricted electives and BINF 210.3 has been removed, as BINF 210.3 will no longer be offered.

Bachelor of Science in Animal Bioscience [B.Sc.(An.Biosc.)]

Year 1 (30 credit units)

- AGRC 110.3
- AGRC 111.3
- AGRC 113.3
- ANBI 110.3

- BIOL 120.3
- CHEM 112.3
- CHEM 115.3
- MATH 104.3 or MATH 110.3 or MATH 125.3

- ENG 111.3
- ENG 112.3
- ENG 113.3
- ENG 114.3
- ENG 120.3

Choose 3 credit units from the following:

Choose 3 credit units from the areas of Social Science, Humanities or Fine Arts.

- CHIN 100-Level, 200-Level, 300-Level, 400-Level
- CLAS 100-Level, 200-Level, 300-Level, 400-Level
- CREE 100-Level, 200-Level, 300-Level, 400-Level
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100-Level, 200-Level, 300-Level, 400-Level
- GERM 100-Level, 200-Level, 300-Level, 400-Level
- HEB 100-Level, 200-Level, 300-Level, 400-Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- HNDI 100-Level, 200-Level, 300-Level, 400-Level
- INTS 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level
- LATN 100-Level, 200-Level, 300-Level, 400-Level
- LIT 100-Level, 200-Level, 300-Level, 400-Level
- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- RLST 100-Level, 200-Level, 300-Level, 400-Level
- RUSS 100-Level, 200-Level, 300-Level, 400-Level

- SNSK 100-Level, 200-Level, 300-Level, 400-Level
- SPAN 100-Level, 200-Level, 300-Level, 400-Level
- UKR 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- ECON 100-Level, 200-Level, 300-Level, 400-Level
- GEOG 130.3
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- IS 100-Level, 200-Level, 300-Level, 400-Level
- LING 100-Level, 200-Level, 300-Level, 400-Level
- PLAN 100-Level, 200-Level, 300-Level, 400-Level
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- PSY 100-Level, 200-Level, 300-Level, 400-Level
- SOC 100-Level, 200-Level, 300-Level, 400-Level
- SOSC 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level

Any senior-level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

Fine Arts

- ART 100-Level, 200-Level, 300-Level, 400-Level
- ARTH 100-Level, 200-Level, 300-Level, 400-Level
- DRAM 100-Level, 200-Level, 300-Level, 400-Level

• MUS — 100-Level, 200-Level, 300-Level, 400-Level

Year 2 (30 credit units)

- ANSC 212.3
- ANSC 313.3
- AREC 220.3
- BIOL 224.3
- BMSC 230.3
- CHEM 250.3
- FABS 212.3 OR BMSC 210.3
- PLSC 214.3

Choose 3 credit units of restricted electives

Restricted Electives:

- ANBI 298.3
- ANBI 320.3
- ANBI 360.3
- ANBI 398.3
- ANBI 420.3
- ANBI 471.3
- ANBI 475.3
- ANBI 494.3
- ANBI 498.3
- ANSC 298.3
- ANSC 301.3
- ANSC 316.3
- ANSC 355.3
- ANSC 398.3
- ANSC 410.3
- ANSC 430.3
- ANSC 440.3

- ANSC 460.3
- ANSC 485.3
- ANSC 498.3
- AREC 222.3
- AREC 343.3
- BINF 151.3 Computing in the Biological Sciences
- BINF 210.3
- BIOL 222.3
- BIOL 226.3
- BIOL 316.3
- BIOL 430.3
- BIOL 451.3
- BIOL 455.3
- BIOL 458.3
- BIOL 472.3
- BLE 205.3
- BLE 303.3
- BMIS 308.3
- BMIS310.3
- BMIS321.3
- BMIS 340.3
- BMIS435.3
- BMIS436.3
- BMSC 220.3
- BMSC 240.3
- COMM 101.3
- COMM 105.3
- COMM 201.3
- COMM 204.3

- COMM 304.3
- COMM 404.3
- FABS 110.3
- FABS 325.3
- FABS 457.3
- MCIM 321.3
- PHYS 115.3
- PLSC 213.3
- PLSC 405.3
- PLSC 418.3
- PLSC 420.3
- PLSC 422.3
- PLSC 423.3
- RCM 312.3
- RCM 400.3
- RCM 401.3
- RCM 402.3
- RCM 404.3
- RCM 406.3
- RCM 407.3
- RCM 408.3
- RCM 409.3
- RCM 410.3
- RCM 495.3
- TOX 300.3
- TOX 402.3
- VBMS314.3
- VLAC 411.3
- VTPA 412.3

• or courses approved by an Animal Science program advisor

Year 3 (30 credit units)

- ANBI 320.3
- ANBI 375.3
- ANSC 315.3
- VBMS324.3
- VBMS325.3

Choose 9 credit units of open electives

Note: Open Electives may be chosen from most classes offered at the University of Saskatchewan, including classes from the Animal Biosciences Restricted Electives list.

Choose 6 credit units of restricted electives

Restricted Electives:

- ANBI 298.3
- ANBI 320.3
- ANBI 360.3
- ANBI 398.3
- ANBI 420.3
- ANBI 471.3
- ANBI 475.3
- ANBI 494.3
- ANBI 498.3
- ANSC 298.3
- ANSC 301.3
- ANSC 316.3
- ANSC 355.3
- ANSC 398.3
- ANSC 410.3
- ANSC 430.3
- ANSC 440.3

- ANSC 460.3
- ANSC 485.3
- ANSC 498.3
- AREC 222.3
- AREC 343.3
- BINF 151.3 Computing in the Biological Sciences
- BINF 210.3
- BIOL 222.3
- BIOL 226.3
- BIOL 316.3
- BIOL 430.3
- BIOL 451.3
- BIOL 455.3
- BIOL 458.3
- BIOL 472.3
- BLE 205.3
- BLE 303.3
- BMIS 308.3
- BMIS310.3
- BMIS321.3
- BMIS 340.3
- BMIS435.3
- BMIS436.3
- BMSC 220.3
- BMSC 240.3
- COMM 101.3
- COMM 105.3
- COMM 201.3
- COMM 204.3

- COMM 304.3
- COMM 404.3
- FABS 110.3
- FABS 325.3
- FABS 457.3
- MCIM 321.3
- PHYS 115.3
- PLSC 213.3
- PLSC 405.3
- PLSC 418.3
- PLSC 420.3
- PLSC 422.3
- PLSC 423.3
- RCM 312.3
- RCM 400.3
- RCM 401.3
- RCM 402.3
- RCM 404.3
- RCM 406.3
- RCM 407.3
- RCM 408.3
- RCM 409.3
- RCM 410.3
- RCM 495.3
- TOX 300.3
- TOX 402.3
- VBMS314.3
- VLAC 411.3
- VTPA 412.3

• or courses approved by an Animal Science program advisor

Year 4 (30 credit units)

- ANBI 411.3
- ANBI 420.3
- ANBI 470.3
- ANBI 492.3 or ANBI 494.6 (3 credit units count as restricted elective)
- ANSC 440.3
- VLAC 411.3 or VTPA 412.3

Choose 3 credit units from the following:

- ANSC 355.3
- ANSC 410.3
- ANSC 430.3
- ANSC 460.3

Choose 6 credit units of open electives

Note: Open Electives may be chosen from most classes offered at the University of Saskatchewan, including classes from the Animal Biosciences Restricted Electives list.

Choose 3 credit units of restricted electives

Restricted Electives:

- ANBI 298.3
- ANBI 320.3
- ANBI 360.3
- ANBI 398.3
- ANBI 420.3
- ANBI 471.3
- ANBI 475.3
- ANBI 494.3
- ANBI 498.3
- ANSC 298.3
- ANSC 301.3

- ANSC 316.3
- ANSC 355.3
- ANSC 398.3
- ANSC 410.3
- ANSC 430.3
- ANSC 440.3
- ANSC 460.3
- ANSC 485.3
- ANSC 498.3
- AREC 222.3
- AREC 343.3
- BINF 151.3 Computing in the Biological Sciences
- BINF 210.3
- BIOL 222.3
- BIOL 226.3
- BIOL 316.3
- BIOL 430.3
- BIOL 451.3
- BIOL 455.3
- BIOL 458.3
- BIOL 472.3
- BLE 205.3
- BLE 303.3
- BMIS 308.3
- BMIS310.3
- BMIS321.3
- BMIS 340.3
- BMIS435.3
- BMIS436.3

- BMSC 220.3
- BMSC 240.3
- COMM 101.3
- COMM 105.3
- COMM 201.3
- COMM 204.3
- COMM 304.3
- COMM 404.3
- FABS 110.3
- FABS 325.3
- FABS 457.3
- MCIM 321.3
- PHYS 115.3
- PLSC 213.3
- PLSC 405.3
- PLSC 418.3
- PLSC 420.3
- PLSC 422.3
- PLSC 423.3
- RCM 312.3
- RCM 400.3
- RCM 401.3
- RCM 402.3
- RCM 404.3
- RCM 406.3
- RCM 407.3
- RCM 408.3
- RCM 409.3
- RCM 410.3

- RCM 495.3
- TOX 300.3
- TOX 402.3
- VBMS314.3
- VLAC 411.3
- VTPA 412.3
- or courses approved by an Animal Science program advisor

Rationale: Further to the revisions to program requirements to the B.Sc. Animal Bioscience submitted to University Course Challenge in April 2021, which are already reflected in this document, the department has decided to remove BINF 210.3 from the list of restricted electives because this course will no longer be offered and replace it with BINF 151.3.

Food and Bioproduct Sciences

The revisions to the catalogue for the Food and Bioproduct major incorporate revisions to the B.S.A. core, clarify course sequencing, and reflect changes to available courses.

Food and Bioproduct Sciences

Bachelor of Science in Agriculture (B.S.A.)

Please note that FABS 110.3 The Science of Food may be taken in year one or two.

Year 1 (30 credit units)

- AGRC 110.3 Scientific Literacy and Communication for the Agricultural Sciences
- AGRC 111.3 Discovery in Plant and Soil Sciences
- AGRC 112.3 Animal Agriculture and Food Science
- AGRC 113.3 Agri Food Issues and Institutions
- **BIOL 120.3** The Nature of Life
- **BIOL 121.3** The Diversity of Life
- CHEM 112.3 General Chemistry I Structure Bonding and Properties of Materials
- CHEM 250.3 Introduction to Organic Chemistry
- ECON 111.3 Introductory Microeconomics

Choose 63 credit units from the areas of Social Science, Humanities or Fine Arts:

Humanities

- <u>CHIN 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>CLAS 100-Level, 200-Level, 300-Level, 400-Level</u>
- CREE 100-Level, 200-Level, 300-Level, 400-Level
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100-Level, 200-Level, 300-Level, 400-Level
- <u>GERM 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>HEB 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>HIST 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>HNDI 100-Level, 200-Level, 300-Level, 400-Level</u>
- INTS 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level
- LATN 100-Level, 200-Level, 300-Level, 400-Level
- <u>LIT 100-Level, 200-Level, 300-Level, 400-Level</u>
- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- RLST 100-Level, 200-Level, 300-Level, 400-Level
- RUSS 100-Level, 200-Level, 300-Level, 400-Level
- SNSK 100-Level, 200-Level, 300-Level, 400-Level
- <u>SPAN 100-Level, 200-Level, 300-Level, 400-Level</u>
- UKR 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

Social Sciences

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- <u>ECON 100-Level, 200-Level, 300-Level, 400-Level</u>
- GEOG 130.3 Environment Health and Planning
- INDG 100-Level, 200-Level, 300-Level, 400-Level

- <u>IS 100-Level, 200-Level, 300-Level, 400-Level</u>
- LING 100-Level, 200-Level, 300-Level, 400-Level
- PLAN 100-Level, 200-Level, 300-Level, 400-Level
- <u>POLS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>PSY 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SOC 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SOSC 100-Level, 200-Level, 300-Level, 400-Level</u>
- WGST 100-Level, 200-Level, 300-Level, 400-Level

Any senior-level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

Fine Arts

- <u>ART 100-Level, 200-Level, 300-Level, 400-Level</u>
- ARTH 100-Level, 200-Level, 300-Level, 400-Level
- DRAM 100-Level, 200-Level, 300-Level, 400-Level
- <u>MUS 100-Level, 200-Level, 300-Level, 400-Level</u>

Year 2 (30 credit units)

- AREC 220.3 History of Indigenous Agriculture in Canada or INDG 107.3 Introduction to Canadian Indigenous Studies
- **BMSC 200.3** Biomolecules
- BMSC 230.3 Metabolism
- <u>ENG 111.3</u> Literature and Composition Reading Poetry or <u>ENG 112.3</u> Literature and Composition Reading Drama or <u>ENG 113.3</u> Literature and Composition Reading Narrative or <u>ENG</u> <u>114.3 Literature and Composition Reading Culture or 120.3</u>
- FABS 110.3 The Science of Food (Please note that FABS 110.3 The Science of Food can be taken in Year 1 or Year 2.)
- FABS 211.3 Introductory Bioproduct Science
- FABS 212.3 Agrifood and Resources Microbiology or BMSC 210.3 Microbiology

- MATH 104.3 Elementary Calculus or MATH 110.3 Calculus I or MATH 125.3 Mathematics for the Life Sciences
- NUTR 120.3 Basic Nutrition
- PLSC 214.3 Statistical Methods or STAT 245.3 Introduction to Statistical Methods
- •___RCM 200.3

Choose 3 credit units from the following:

- ANTH 302.3 The Practice of Ethnography
- ANTH 310.3 Anthropology of Gender
- ANTH 405.3 Anthropology of Disaster and Disruption
- ANTH 421.3 Anthropology in Time: Early Influences
- ENG 111.3 Literature and Composition Reading Poetry
- ENG 112.3 Literature and Composition Reading Drama
- ENG 113.3 Literature and Composition Reading Narrative
- ENG 114.3 Literature and Composition Reading Culture
- ENG 120.3 Introduction to Creative Writing
- HIST 115.3 History Matters Ideas and Culture
- HIST 125.3 History Matters Indigenous Colonial and Post Colonial Histories
- HIST 135.3 History Matters Gender Sex and Society
- HIST 145.3 History Matters War Violence and Politics
- HIST 155.3 History Matters Science and Environment
- HIST 165.3 History Matters Health and Society
- HIST 175.3 History Matters Identities and Communities in Transition
- HIST 185.3 History Matters Conflict Law Politics and the State
- HIST 193.3 History Matters Topics in Canadian History
- HIST 194.3 History Matters Topics in European History
- INTS 203.3 Cultivating Humanity
- PHIL 120.3 Knowledge Mind and Existence
- PHIL 121.3 Introduction to World Philosophies
- PHIL 133.3 Introduction to Ethics and Values

- PHIL 208.3 Ancient Philosophy Presocratics to Plato
- PHIL 233.3 Ethical Theory
- POLS 245.3 Politics of Africa
- POLS 323.3 First Nations Policies and Programs
- POLS 328.3 Public Policy Analysis
- POLS 333.3 Theory and Politics of Law
- POLS 336.3 Justice and Democracy
- POLS 422.3 First Nations Governance
- POLS 461.3 Topics in Global Politics
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 355.3 Research in Advanced Cognitive Science
- RLST 280.3 Methodologies and Approaches to Study of Religions
- RLST 362.3 Monsters and Mischief Makers

Year 3 and 4 (60 credit units)

- <u>BLE 303.3</u> Principles of Food and Bioproducts Engineering
- <u>COMM 204.3</u> Introduction to Marketing or <u>AREC 230.3</u> Innovation and Entrepreneurship or <u>ENT</u> 210.3
- FABS 315.3 Food Chemistry
- FABS 325.3 Food Microbiology and Safety
- FABS 334.3 Industrial Microbiology
- FABS 345.3 Unit Operations in Food Processing
- FABS 417.3 Food and Bioproducts Analysis
- FABS 452.3 Quality Assurance and HACCP
- FABS 492.3 Literature Thesis or FABS 494.6 Research Thesis (3 credit units of FABS 494.6 Research Thesis count as restricted electives)

Choose 21 credit units of restricted electives from the following:

To fulfill this requirement, students can choose courses for a minor or choose from the following selection of courses in consultation with an advisor:

• <u>BMSC 240.3</u> Laboratory Techniques

- BMSC 320.3 Nucleic Acids From Central Dogma to Human Disease
- <u>CHEM 115.3</u> General Chemistry II Chemical Processes
- CHEM 221.3 Analytical Chemistry I
- CHEM 231.3 Inorganic Chemistry I
- CHEM 242.3 Thermodynamics and Kinetics
- CHEM 255.3 Bio Organic Chemistry
- FABS 222.3 Improving Food Security through Food Science and Technology
- FABS 298.3 Special Topics
- FABS 323.3 Food Additives and Toxicants
- FABS 360.3 Water Microbiology and Safety
- FABS 362.3 Functional Foods and Nutraceuticals
- FABS 371.3 Food Biotechnology
- FABS 398.3 Special Topics
- FABS 401.3 Dairy Science and Technology
- FABS 411.3 Lipid Science and Technology
- FABS 430.3
- FABS 436.3
- FABS 450.3
- FABS 457.3 Meat Science and Technology
- FABS 460.3 Protein Science and Technology
- FABS 474.3 Food Enzymology
- •___FABS 486.3
- FABS 493.3 Product Development
- FABS 494.6 Research Thesis
- FABS 498.3 Special Topics
- NUTR 310.3 Food Culture and Human Nutrition
- NUTR 322.3 Nutrition Throughout the Lifespan
- PLSC 420.3 Grain Chemistry and Technology

Open Electives

• Choose 12 credit units of open electives

Rationale: These revisions help to increase flexibility in course scheduling, clarify course sequencing, and bring the Food and Bioproduct Sciences major in-line with the other B.S.A. majors.

Soil Science

The revisions to the catalogue for the Soil Science major incorporate revisions to the B.S.A. core, clarify course sequencing, and reflect changes to available courses.

Soil Science

Bachelor of Science in Agriculture (B.S.A.)

Year 1 – (30 credit units) Fall Term (15 credit units)

- AGRC 110.3 Scientific Literacy and Communication for the Agricultural Sciences
- AGRC 111.3 Discovery in Plant and Soil Sciences
- AGRC 112.3 Animal Agriculture and Food Science
- AGRC 113.3 Agri Food Issues and Institutions
- AREC 220.3 History of Indigenous Agriculture in Canada or INDG 107.3 Introduction to Canadian Indigenous Studies
- BIOL 120.3 The Nature of Life
- BIOL 121.3 The Diversity of Life
- <u>CHEM 112.3</u> General Chemistry I Structure Bonding and Properties of Materials
- CHEM 250.3 Introduction to Organic Chemistry
- ECON 111.3 Introductory Microeconomics

Choose 3 credit units from the areas of Social Science, Humanities or Fine Arts.

Humanities

- <u>CHIN 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>CLAS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>CREE 100-Level, 200-Level, 300-Level, 400-Level</u>
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100-Level, 200-Level, 300-Level, 400-Level
- <u>GERM 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>HEB 100-Level, 200-Level, 300-Level, 400-Level</u>

- HIST 100-Level, 200-Level, 300-Level, 400-Level
- HNDI 100-Level, 200-Level, 300-Level, 400-Level
- INTS 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level
- <u>LATN 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>LIT 100-Level, 200-Level, 300-Level, 400-Level</u>
- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- <u>RLST 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>RUSS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SNSK 100-Level, 200-Level, 300-Level, 400-Level</u>
- SPAN 100-Level, 200-Level, 300-Level, 400-Level
- UKR 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

Social Sciences

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- <u>ECON 100-Level, 200-Level, 300-Level, 400-Level</u>
- **<u>GEOG 130.3</u>** Environment Health and Planning
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- IS 100-Level, 200-Level, 300-Level, 400-Level
- LING 100-Level, 200-Level, 300-Level, 400-Level
- PLAN 100-Level, 200-Level, 300-Level, 400-Level
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- <u>PSY 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SOC 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SOSC 100-Level, 200-Level, 300-Level, 400-Level</u>

• WGST — 100-Level, 200-Level, 300-Level, 400-Level

Any senior-level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

Fine Arts

- ART 100-Level, 200-Level, 300-Level, 400-Level
- ARTH 100-Level, 200-Level, 300-Level, 400-Level
- DRAM 100-Level, 200-Level, 300-Level, 400-Level
- <u>MUS 100-Level, 200-Level, 300-Level, 400-Level</u>

Year 1 - Winter Term (15 credit units)

- <u>AGRC 112.3</u> Animal Agriculture and Food Science
- <u>AGRC 113.3</u> Agri Food Issues and Institutions
- BIOL 121.3 The Diversity of Life
- CHEM 250.3 Introduction to Organic Chemistry

Choose 3 credit units from the areas of Social Science, Humanities or Fine Arts:

(continued from Term 1 if a 6 credit unit course or a new 3 credit unit course for Term 2):

Humanities

- <u>CHIN 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>CLAS 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>CREE 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>ENG 100 Level, 200 Level, 300 Level, 400 Level</u>
- FREN 100 Level, 200 Level, 300 Level, 400 Level
- <u>GERM 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>HEB 100 Level, 200 Level, 300 Level, 400 Level</u>
- HIST 100 Level, 200 Level, 300 Level, 400 Level
- HNDI 100 Level, 200 Level, 300 Level, 400 Level
- INTS 100-Level, 200-Level, 300-Level, 400-Level

- JPNS 100 Level, 200 Level, 300 Level, 400 Level
- <u>LATN 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>LIT 100-Level, 200-Level, 300-Level, 400-Level</u>
- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- <u>RLST 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>RUSS 100 Level, 200 Level, 300 Level, 400 Level</u>
- SNSK 100-Level, 200-Level, 300-Level, 400-Level
- SPAN 100 Level, 200 Level, 300 Level, 400 Level
- UKR 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100 Level, 200 Level, 300 Level, 400 Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

Social Sciences

- ANTH 100 Level, 200 Level, 300 Level, 400 Level
- ARCH 100 Level, 200 Level, 300 Level, 400 Level
- ECON 100 Level, 200 Level, 300 Level, 400 Level
- <u>GEOG 130.3</u> Environment Health and Planning
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- <u>IS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>LING 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>PLAN 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>POLS 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>PSY 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SOC 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>SOSC 100-Level, 200-Level, 300-Level, 400-Level</u>
- WGST 100-Level, 200-Level, 300-Level, 400-Level

Any senior level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

Fine Arts

- ART 100-Level, 200-Level, 300-Level, 400-Level
- ARTH 100-Level, 200-Level, 300-Level, 400-Level
- DRAM 100 Level, 200 Level, 300 Level, 400 Level
- <u>MUS 100 Level, 200 Level, 300 Level, 400 Level</u>

Year 2 (30 credit units)

- CHEM 231.3 Inorganic Chemistry I or BMSC 200.3 Biomolecules
- **EVSC 210.3** Environmental Physics
- FABS 212.3 Agrifood and Resources Microbiology OR BMSC 210.3 Microbiology
- MATH 104.3 Elementary Calculus or MATH 110.3 Calculus I or MATH 125.3 Mathematics for the Life Sciences
- PLSC 213.3 Principles of Plant Ecology
- •___RCM 200.3
- <u>SLSC240.3</u> Agricultural Soil Science or <u>EVSC 220.3</u> Environmental Soil Science

Choose 3 credit units from the following:

- ANTH 302.3 The Practice of Ethnography
- ANTH 310.3 Anthropology of Gender
- ANTH 405.3 Anthropology of Disaster and Disruption
- ANTH 421.3 Anthropology in Time: Early Influences
- **ENG 111.3** Literature and Composition Reading Poetry
- ENG 112.3 Literature and Composition Reading Drama
- ENG 113.3 Literature and Composition Reading Narrative
- ENG 114.3 Literature and Composition Reading Culture
- ENG 120.3 Introduction to Creative Writing
- HIST 115.3 History Matters Ideas and Culture
- HIST 125.3 History Matters Indigenous Colonial and Post Colonial Histories

- HIST 135.3 History Matters Gender Sex and Society
- HIST 145.3 History Matters War Violence and Politics
- HIST 155.3 History Matters Science and Environment
- HIST 165.3 History Matters Health and Society
- HIST 175.3 History Matters Identities and Communities in Transition
- HIST 185.3 History Matters Conflict Law Politics and the State
- HIST 193.3 History Matters Topics in Canadian History
- HIST 194.3 History Matters Topics in European History
- INTS 203.3 Cultivating Humanity
- PHIL 120.3 Knowledge Mind and Existence
- PHIL 121.3 Introduction to World Philosophies
- PHIL 133.3 Introduction to Ethics and Values
- PHIL 208.3 Ancient Philosophy Presocratics to Plato
- PHIL 233.3 Ethical Theory
- POLS 245.3 Politics of Africa
- POLS 323.3 First Nations Policies and Programs
- POLS 328.3 Public Policy Analysis
- POLS 333.3 Theory and Politics of Law
- POLS 336.3 Justice and Democracy
- POLS 422.3 First Nations Governance
- POLS 461.3 Topics in Global Politics
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 355.3 Research in Advanced Cognitive Science
- RLST 280.3 Methodologies and Approaches to Study of Religions
- RLST 362.3 Monsters and Mischief Makers

Open Electives

• Choose 6 9 credit units open electives

Years 3 & 4 (60 credit units)

• AREC 330.3 Land Resource Economics

- EVSC 380.3 Grassland Soils and Vegetation
- <u>GEOL 206.3</u> Earth Systems or <u>GEOG 120.3</u> Introduction to Global Environmental Systems
- PLSC 214.3 Statistical Methods or STAT 245.3 Introduction to Statistical Methods
- <u>SLSC232.3</u> Soil Genesis and Classification
- <u>SLSC312.3</u> Soil Fertility and Fertilizers
- **<u>SLSC313.3</u>** Environmental Soil Chemistry
- **<u>SLSC322.3</u>** Environmental Soil Physics
- <u>SLSC342.3</u> Agronomic Soil Microbiology
- <u>SLSC350.3</u> Terrestrial Restoration
- <u>SLSC444.3</u> Soil Ecology
- <u>SLSC460.3</u> Forest Soils or <u>SLSC480.3</u> Soils and Boreal Landscapes
- <u>SLSC492.3</u> Research and Term Paper or <u>SLSC494.6</u> Research and Thesis (3 credit units count as restricted elective)

Choose 3 credit units from the following:

- PLSC 222.3 Introduction to Field Crops or PLSC 201.3 Field Crops of Western Canada
- PLSC 422.3 Rangeland Ecology and Management
- PLSC 423.3 Landscape Ecology and Vegetation Management
- PLSC 425.3 Forest Ecology

Restricted Electives

• Choose 9 credit units of electives, as approved by the Soil Science Program Advisor (may include 3 credit units of <u>SLSC494.6</u> Research and Thesis)

Open Electives

• Choose 9 credit units open electives

Rationale: These revisions help to increase flexibility in course scheduling, clarify course sequencing, and bring the Soil Science major in-line with the other B.S.A. majors.

Environmental Science

The revisions to the catalogue for the Environmental Science major incorporate revisions to the B.S.A. core, clarify course sequencing, and reflect changes to available courses.

Environmental Science

Bachelor of Science in Agriculture (B.S.A.)

Year 1 – (30 credit units) Fall Term (15 credit units)

- AGRC 110.3 Scientific Literacy and Communication for the Agricultural Sciences
- AGRC 111.3 Discovery in Plant and Soil Sciences
- AGRC 112.3 Animal Agriculture and Food Science
- AGRC 113.3 Agri Food Issues and Institutions
- AREC 220.3 History of Indigenous Agriculture in Canada or INDG 107.3 Introduction to Canadian Indigenous Studies
- BIOL 120.3 The Nature of Life
- BIOL 121.3 The Diversity of Life or EVSC 110.3 Renewable Resources and Environment
- <u>CHEM 112.3</u> General Chemistry I Structure Bonding and Properties of Materials
- CHEM 115.3 General Chemistry II Chemical Processes or CHEM 250.3 Introduction to Organic Chemistry
- ECON 111.3 Introductory Microeconomics

Choose 3 credit units from the areas of Social Science, Humanities or Fine Arts:

Humanities

- <u>CHIN 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>CLAS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>CREE 100-Level, 200-Level, 300-Level, 400-Level</u>
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100-Level, 200-Level, 300-Level, 400-Level
- <u>GERM 100-Level, 200-Level, 300-Level, 400-Level</u>
- HEB 100-Level, 200-Level, 300-Level, 400-Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- <u>HNDI 100-Level, 200-Level, 300-Level, 400-Level</u>
- INTS 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level
- LATN 100-Level, 200-Level, 300-Level, 400-Level
- <u>LIT 100-Level, 200-Level, 300-Level, 400-Level</u>

- PHIL 100-Level, 200-Level, 300-Level, 400-Level
- <u>RLST 100-Level, 200-Level, 300-Level, 400-Level</u>
- RUSS 100-Level, 200-Level, 300-Level, 400-Level
- <u>SNSK 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SPAN 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>UKR 100-Level, 200-Level, 300-Level, 400-Level</u>
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

Social Sciences

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- ECON 100-Level, 200-Level, 300-Level, 400-Level
- GEOG 130.3 Environment Health and Planning
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- IS 100-Level, 200-Level, 300-Level, 400-Level
- LING 100-Level, 200-Level, 300-Level, 400-Level
- PLAN 100-Level, 200-Level, 300-Level, 400-Level
- <u>POLS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>PSY 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SOC 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SOSC 100-Level, 200-Level, 300-Level, 400-Level</u>
- WGST 100-Level, 200-Level, 300-Level, 400-Level

Any senior-level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

Fine Arts

- ART 100-Level, 200-Level, 300-Level, 400-Level
- ARTH 100-Level, 200-Level, 300-Level, 400-Level
- DRAM 100-Level, 200-Level, 300-Level, 400-Level
- MUS 100-Level, 200-Level, 300-Level, 400-Level

Year 1 - Winter Term (15 credit units)

- <u>AGRC 112.3</u> Animal Agriculture and Food Science
- <u>AGRC 113.3</u> Agri Food Issues and Institutions
- BIOL 121.3 The Diversity of Life or EVSC 110.3 Renewable Resources and Environment
- <u>CHEM 115.3</u> General Chemistry II Chemical Processes or <u>CHEM 250.3</u> Introduction to Organic Chemistry

Choose 3 credit units from the areas of Social Science, Humanities or Fine Arts:

Humanities

- <u>CHIN 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>CLAS 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>CREE 100 Level, 200 Level, 300 Level, 400 Level</u>
- ENG 100-Level, 200-Level, 300-Level, 400-Level
- FREN 100-Level, 200-Level, 300-Level, 400-Level
- <u>GERM 100 Level, 200 Level, 300 Level, 400 Level</u>
- HEB 100-Level, 200-Level, 300-Level, 400-Level
- HIST 100 Level, 200 Level, 300 Level, 400 Level
- HNDI 100-Level, 200-Level, 300-Level, 400-Level
- INTS 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level
- LATN 100-Level, 200-Level, 300-Level, 400-Level
- <u>LIT 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>PHIL 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>RLST 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>RUSS 100 Level, 200 Level, 300 Level, 400 Level</u>
- SNSK 100-Level, 200-Level, 300-Level, 400-Level

- SPAN 100 Level, 200 Level, 300 Level, 400 Level
- <u>UKR 100 Level, 200 Level, 300 Level, 400 Level</u>
- WGST 100 Level, 200 Level, 300 Level, 400 Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

Social Sciences

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- ARCH 100 Level, 200 Level, 300 Level, 400 Level
- ECON 100 Level, 200 Level, 300 Level, 400 Level
- GEOG 130.3 Environment Health and Planning
- INDG 100 Level, 200 Level, 300 Level, 400 Level
- IS 100-Level, 200-Level, 300-Level, 400-Level
- <u>LING 100 Level, 200 Level, 300 Level, 400 Level</u>
- PLAN 100 Level, 200 Level, 300 Level, 400 Level
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- <u>PSY 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SOC 100 Level, 200 Level, 300 Level, 400 Level</u>
- SOSC 100 Level, 200 Level, 300 Level, 400 Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level

Any senior level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

Fine Arts

- ART 100 Level, 200 Level, 300 Level, 400 Level
- ARTH 100-Level, 200-Level, 300-Level, 400-Level
- DRAM 100 Level, 200 Level, 300 Level, 400 Level
- <u>MUS 100-Level, 200-Level, 300-Level, 400-Level</u>

Year 2 (30 credit units)

- **EVSC 203.3** Sampling and Laboratory Analysis
- EVSC 210.3 Environmental Physics
- EVSC 220.3 Environmental Soil Science
- FABS 212.3 Agrifood and Resources Microbiology OR BMSC 210.3 Microbiology
- <u>GEOL 206.3</u> Earth Systems or <u>GEOG 120.3</u> Introduction to Global Environmental Systems
- MATH 104.3 Elementary Calculus or MATH 110.3 Calculus I or MATH 125.3 Mathematics for the Life Sciences
- PLSC 213.3 Principles of Plant Ecology
- PLSC 214.3 Statistical Methods or STAT 245.3 Introduction to Statistical Methods

Choose 3 credit units from the following:

- ANTH 302.3 The Practice of Ethnography
- ANTH 310.3 Anthropology of Gender
- ANTH 405.3 Anthropology of Disaster and Disruption
- ANTH 421.3 Anthropology in Time: Early Influences
- **ENG 111.3** Literature and Composition Reading Poetry
- ENG 112.3 Literature and Composition Reading Drama
- ENG 113.3 Literature and Composition Reading Narrative
- ENG 114.3 Literature and Composition Reading Culture
- ENG 120.3 Introduction to Creative Writing
- HIST 115.3 History Matters Ideas and Culture
- HIST 125.3 History Matters Indigenous Colonial and Post Colonial Histories
- HIST 135.3 History Matters Gender Sex and Society
- HIST 145.3 History Matters War Violence and Politics
- HIST 155.3 History Matters Science and Environment
- HIST 165.3 History Matters Health and Society
- HIST 175.3 History Matters Identities and Communities in Transition
- HIST 185.3 History Matters Conflict Law Politics and the State
- HIST 193.3 History Matters Topics in Canadian History

- HIST 194.3 History Matters Topics in European History
- INTS 203.3 Cultivating Humanity
- PHIL 120.3 Knowledge Mind and Existence
- PHIL 121.3 Introduction to World Philosophies
- PHIL 133.3 Introduction to Ethics and Values
- PHIL 208.3 Ancient Philosophy Presocratics to Plato
- PHIL 233.3 Ethical Theory
- POLS 245.3 Politics of Africa
- POLS 323.3 First Nations Policies and Programs
- POLS 328.3 Public Policy Analysis
- POLS 333.3 Theory and Politics of Law
- POLS 336.3 Justice and Democracy
- POLS 422.3 First Nations Governance
- POLS 461.3 Topics in Global Politics
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 355.3 Research in Advanced Cognitive Science
- RLST 280.3 Methodologies and Approaches to Study of Religions
- RLST 362.3 Monsters and Mischief Makers

Open Electives

• Choose 3 credit units open electives

Years 3 & 4 (60 credit units)

- ENVS 401.3 Sustainability in Action
- **<u>GEOG 222.3</u>** Introduction to Geomatics
- RCM 200.3

Choose 3 credit units of Environmental Policy from the following:

- AREC 330.3 Land Resource Economics
- <u>ECON 275.3</u> Economics of Natural Resources
- ECON 277.3 Economics of the Environment
- **<u>GEOG 280.3</u>** Environmental Geography

Choose 3 credit units of Environmental Risk Assessment from the following:

- ENVE 381.3 Sustainability and Environmental Assessment
- <u>GEOG 235.3</u> Earth Processes and Natural Hazards A Canadian Perspective
- GEOG 386.3 Environmental Impact Assessment
- TOX 301.3 Environmental Toxicology
- TOX 321.3 Risk Assessment and Regulatory Toxicology

Choose 6 credit units of Environmental Quality from the following:

- CHEM 375.3 Environmental Chemistry
- **EVSC 420.3** Environmental Fate and Transport of Toxic Substances
- EVSC 421.3 Contaminated Site Management and Remediation
- GEOG 225.3 Hydrology of Canada
- **<u>GEOG 233.3</u>** Introduction to Weather and Climate
- GEOG 325.3 Principles of Fluvial Systems
- GEOG 333.3 Global Climate Change
- <u>GEOL 229.3</u> Introductory Geochemistry
- <u>SLSC342.3</u> Agronomic Soil Microbiology
- SLSC350.3 Terrestrial Restoration

Choose 3 credit units Field Courses from the following:

- EVSC 380.3 Grassland Soils and Vegetation
- **SLSC480.3** Soils and Boreal Landscapes

Choose 6 credit units of Agriculture and the Environment from the following:

- ANBI 375.3 Animals and the Environment
- ENVE 432.3 Land Management and Reclamation
- PLSC 201.3 Field Crops of Western Canada or PLSC 222.3 Introduction to Field Crops
- PLSC 401.3 Sustainable Crop Production
- PLSC 422.3 Rangeland Ecology and Management
- PLSC 425.3 Forest Ecology
- **SLSC 312.3** Soil Fertility and Fertilizers

Choose 6 credit units from the following:

- <u>SLSC232.3</u> Soil Genesis and Classification
- **SLSC313.3** Environmental Soil Chemistry
- SLSC 322.3 Environmental Soil Physics
- **SLSC444.3** Soil Ecology

Choose 12 credit units of restricted electives:

Direct entry students are required to select a minor in one of the fields of specialization within the College or an approved cross-college minor. Completion of the minor requirements will satisfy the Restricted Electives requirement. Students transferring under a block transfer agreement with another college or institution do not require a minor but instead must take a prescribed number of courses from a list of approved restricted electives. For a list of these classes see the Block Transfer section below.

Open Electives

• Choose 12 15 credit units open electives

Rationale: These revisions help to increase flexibility in course scheduling, clarify course sequencing, and bring the Environmental Science major in-line with the other B.S.A. majors.

Crop Science

BINF 151.3 has been added to the list of restricted electives and BINF 210.3 has been removed, as BINF 210.3 will no longer be offered.

Crop Science

Bachelor of Science in Agriculture (B.S.A.)

Year 1 (30 credit units) - Fall Term (15 credit units)

- AGRC 110.3 Scientific Literacy and Communication for the Agricultural Sciences
- AGRC 111.3 Discovery in Plant and Soil Sciences
- AGRC 112.3 Animal Agriculture and Food Science
- AGRC 113.3 Agri Food Issues and Institutions
- AREC 220.3 History of Indigenous Agriculture in Canada or INDG 107.3 Introduction to Canadian Indigenous Studies
- **BIOL 120.3** The Nature of Life
- BIOL 121.3 The Diversity of Life
- CHEM 112.3 General Chemistry I Structure Bonding and Properties of Materials
- ECON 111.3 Introductory Microeconomics

• MATH 104.3 Elementary Calculus or MATH 110.3 Calculus I or MATH 125.3 Mathematics for the Life Sciences

Choose 3 credit units from the areas of Social Science, Humanities or Fine Arts:

Humanities

- <u>CHIN 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>CLAS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>CREE 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>ENG 100-Level, 200-Level, 300-Level, 400-Level</u>
- FREN 100-Level, 200-Level, 300-Level, 400-Level
- <u>GERM 100-Level, 200-Level, 300-Level, 400-Level</u>
- HEB 100-Level, 200-Level, 300-Level, 400-Level
- <u>HIST 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>HNDI 100-Level, 200-Level, 300-Level, 400-Level</u>
- INTS 100-Level, 200-Level, 300-Level, 400-Level
- JPNS 100-Level, 200-Level, 300-Level, 400-Level
- LATN 100-Level, 200-Level, 300-Level, 400-Level
- <u>LIT 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>PHIL 100-Level, 200-Level, 300-Level, 400-Level</u>
- RLST 100-Level, 200-Level, 300-Level, 400-Level
- <u>RUSS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>SNSK 100-Level, 200-Level, 300-Level, 400-Level</u>
- SPAN 100-Level, 200-Level, 300-Level, 400-Level
- <u>UKR 100-Level, 200-Level, 300-Level, 400-Level</u>
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

Social Sciences

• ANTH — 100-Level, 200-Level, 300-Level, 400-Level

- ARCH 100-Level, 200-Level, 300-Level, 400-Level
- ECON 100-Level, 200-Level, 300-Level, 400-Level
- GEOG 130.3 Environment Health and Planning
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- <u>IS 100-Level, 200-Level, 300-Level, 400-Level</u>
- LING 100-Level, 200-Level, 300-Level, 400-Level
- PLAN 100-Level, 200-Level, 300-Level, 400-Level
- POLS 100-Level, 200-Level, 300-Level, 400-Level
- PSY 100-Level, 200-Level, 300-Level, 400-Level
- <u>SOC 100-Level, 200-Level, 300-Level, 400-Level</u>
- SOSC 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level

Any senior-level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

Fine Arts

- <u>ART 100-Level, 200-Level, 300-Level, 400-Level</u>
- ARTH 100-Level, 200-Level, 300-Level, 400-Level
- DRAM 100-Level, 200-Level, 300-Level, 400-Level
- MUS 100-Level, 200-Level, 300-Level, 400-Level

Year 1 - Winter Term (15 credit units)

- AGRC 112.3 Animal Agriculture and Food Science
- <u>AGRC 113.3</u> Agri Food Issues and Institutions
- BIOL 121.3 The Diversity of Life
- <u>CHEM 250.3</u> Introduction to Organic Chemistry

Choose 3 credit units from the areas of Social Science, Humanities or Fine Arts:

Humanities

- <u>CHIN 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>CLAS 100 Level, 200 Level, 300 Level, 400 Level</u>
- CREE 100-Level, 200-Level, 300-Level, 400-Level
- ENG 100 Level, 200 Level, 300 Level, 400 Level
- FREN 100 Level, 200 Level, 300 Level, 400 Level
- <u>GERM 100-Level, 200-Level, 300-Level, 400-Level</u>
- HEB 100 Level, 200 Level, 300 Level, 400 Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- HNDI 100 Level, 200 Level, 300 Level, 400 Level
- INTS 100 Level, 200 Level, 300 Level, 400 Level
- JPNS 100 Level, 200 Level, 300 Level, 400 Level
- <u>LATN 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>LIT 100-Level, 200-Level, 300-Level, 400-Level</u>
- PHIL 100 Level, 200 Level, 300 Level, 400 Level
- <u>RLST 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>RUSS 100-Level, 200-Level, 300-Level, 400-Level</u>
- SNSK 100-Level, 200-Level, 300-Level, 400-Level
- SPAN 100 Level, 200 Level, 300 Level, 400 Level
- <u>UKR 100-Level, 200-Level, 300-Level, 400-Level</u>
- WGST 100 Level, 200 Level, 300 Level, 400 Level
- Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.
- MUS 111 is acceptable toward the Humanities requirement.

Social Sciences

- <u>ANTH 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>ARCH 100 Level, 200 Level, 300 Level, 400 Level</u>
- ECON 100 Level, 200 Level, 300 Level, 400 Level
- GEOG 130.3 Environment Health and Planning
- INDG 100 Level, 200 Level, 300 Level, 400 Level

- <u>IS 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>LING 100 Level, 200 Level, 300 Level, 400 Level</u>
- PLAN 100-Level, 200-Level, 300-Level, 400-Level
- POLS 100 Level, 200 Level, 300 Level, 400 Level
- <u>PSY 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>SOC 100 Level, 200 Level, 300 Level, 400 Level</u>
- <u>SOSC 100 Level, 200 Level, 300 Level, 400 Level</u>
- WGST 100-Level, 200-Level, 300-Level, 400-Level

Any senior level social science course, provided the prerequisite is met. Please note that certain GEOG courses are considered Science courses. Refer to the Class Search.

Statistics courses in social sciences are not accepted for credit toward the Social Science Requirement (eg. ECON 204, PSY 233, PSY 234, SOC 225 and SOC 325).

Certain WGST courses may be considered a Humanities and/or Social Science. Refer to the Class Search.

Fine Arts

- <u>ART 100 Level, 200 Level, 300 Level, 400 Level</u>
- ARTH 100 Level, 200 Level, 300 Level, 400 Level
- DRAM 100-Level, 200-Level, 300-Level, 400-Level
- MUS 100 Level, 200 Level, 300 Level, 400 Level

Year 2 (30 credit units)

- BIOL 222.3 The Living Plant
- BIOL 226.3 Genes to Genomics
- CHEM 250.3 Introduction to Organic Chemistry
- <u>MATH 104.3</u> Elementary Calculus or <u>MATH 110.3</u> Calculus I or <u>MATH 125.3</u> Mathematics for the Life Sciences
- PLSC 214.3 Statistical Methods or STAT 245.3 Introduction to Statistical Methods
- PLSC 220.3 Fundamentals of Horticulture or PLSC 213.3 Principles of Plant Ecology
- PLSC 222.3 Introduction to Field Crops
- PLSC 260.3 Principles of Plant Protection
- PLSC 317.3 Plant Metabolism
- •___RCM 200.3

Choose 6 credit units of open electives

Choose 3 credit units from the following:

- ANTH 302.3 The Practice of Ethnography
- ANTH 310.3 Anthropology of Gender
- ANTH 405.3 Anthropology of Disaster and Disruption
- ANTH 421.3 Anthropology in Time: Early Influences
- ENG 111.3 Literature and Composition Reading Poetry
- ENG 112.3 Literature and Composition Reading Drama
- ENG 113.3 Literature and Composition Reading Narrative
- ENG 114.3 Literature and Composition Reading Culture
- ENG 120.3 Introduction to Creative Writing
- HIST 115.3 History Matters Ideas and Culture
- HIST 125.3 History Matters Indigenous Colonial and Post Colonial Histories
- HIST 135.3 History Matters Gender Sex and Society
- HIST 145.3 History Matters War Violence and Politics
- HIST 155.3 History Matters Science and Environment
- HIST 165.3 History Matters Health and Society
- HIST 175.3 History Matters Identities and Communities in Transition
- HIST 185.3 History Matters Conflict Law Politics and the State
- HIST 193.3 History Matters Topics in Canadian History
- HIST 194.3 History Matters Topics in European History
- INTS 203.3 Cultivating Humanity
- PHIL 120.3 Knowledge Mind and Existence
- PHIL 121.3 Introduction to World Philosophies
- PHIL 133.3 Introduction to Ethics and Values
- PHIL 208.3 Ancient Philosophy Presocratics to Plato
- PHIL 233.3 Ethical Theory
- POLS 245.3 Politics of Africa
- POLS 323.3 First Nations Policies and Programs

- POLS 328.3 Public Policy Analysis
- POLS 333.3 Theory and Politics of Law
- POLS 336.3 Justice and Democracy
- POLS 422.3 First Nations Governance
- POLS 461.3 Topics in Global Politics
- PSY 323.3 Qualitative Study of Lives and Social Practices
- PSY 355.3 Research in Advanced Cognitive Science
- RLST 280.3 Methodologies and Approaches to Study of Religions
- RLST 362.3 Monsters and Mischief Makers

Years 3 & 4 (60 credit units)

- **BIOL 331.3** Plant Physiology
- PLSC 317.3 Plant Metabolism
- PLSC 405.3 Genetics of Plant Populations
- PLSC 411.3 Plant Breeding
- PLSC 417.3 Crop Physiology
- <u>PLSC 492.3</u> Project Thesis in Plant Sciences or <u>PLSC 494.6</u> Research Thesis in Plant Sciences (3 credit units count as restricted elective)

Choose **18 21** credit units from the following:

- BIOL 345.3 Introductory Plant Pathology
- PLSC 333.3 Tropical Crops of the World
- PLSC 335.3 Field Crop Disease Management
- PLSC 340.3 Weed Biology and Ecology
- PLSC 345.3 Pesticides and Crop Protection
- PLSC 401.3 Sustainable Crop Production
- PLSC 408.3 Global Plant Genetic Resources
- PLSC 416.3 Applied Plant Biotechnology
- PLSC 418.3 Management of Arable Grassland
- PLSC 420.3 Grain Chemistry and Technology
- PLSC 441.3 Fruit Science

- PLSC 450.3 Applied Entomology
- PLSC 451.3 Vegetable Agronomy
- PLSC 470.3 Plant Propagation and Nursery Management

Choose 18 credit units of restricted electives:

Students can choose courses for completion of a minor in an unrelated subject or choose courses selected from the following list: AGRC 211.3 Global Food Security, AGRC 445.3 Experiential Learning in the Workplace, ANBI 375.3 Animals and the Environment, BINF 151.3 Computing in the Biological Sciences, BIOL 302.3 Evolutionary Processes, BIOL 345.3 Introductory Plant Pathology, BIOL 365.3 Insect Diversity and Evolution, BLE 205.3 Agricultural Machinery Management, BMSC 200.3 Biomolecules, AREC 254.3 Agribusiness Taxation, AREC 346.3 Principles of Selling, AREC 347.3 Agribusiness Marketing Management, FABS 211.3 Introductory Bioproduct Science, RCM 200.3 Effective Professional Communication, RRM 215.3 Identification of Saskatchewan Plants and Soils, any 200-level or above course in PLSC, EVSC or SLSC Plant Science, Environmental or Soil Science-not required for the major, or courses approved by an advisor.

Open Electives

• Choose 9 3 credit units open electives

Rationale: Further to the revisions to program requirements for the Crop Science major submitted to University Course Challenge in November 2021, which are already reflected in this document, the department has decided to remove BINF 210.3 from the list of restricted electives because this course will no longer be offered and replace it with BINF 151.3.

Agribusiness Entrepreneurship

Minor

Requirements (18 credit units)

- AREC 230.3 Innovation and Entrepreneurship
- AREC 495.3 Agribusiness Venture Management
- PHIL 140.3 Critical Thinking

Choose 3 credit units from the following

- AGRC 445.3 Experiential Learning in the Workplace
- RCM 400.3 Rhetorical Theory and Practice of Persuasion
- RCM 401.3 Oral Rhetoric
- <u>RCM 402.3</u> Interpersonal Communication and Rhetoric
- RCM 404.3 Leadership as Communication

- RCM 406.3 Studies in Communication Series
- RCM 407.3 Rhetorical Editing
- RCM 408.3 Rhetorical Composition Writing for the Public
- <u>RCM 409.3</u> Negotiation as Rhetorical Practice
- RCM 410.3 Rhetoric of Science and Technology
- RCM 495.3 Rhetorical Peer Mentorship

Choose 6 credit units from the following:

- AREC 346.3 Principles of Selling
- AREC 347.3 Agribusiness Marketing Management
- AGRC 445.3 Experiential Learning in the Workplace
- <u>RCM 400.3</u> Rhetorical Theory and Practice of Persuasion
- RCM 401.3 Oral Rhetoric
- <u>RCM 402.3</u> Interpersonal Communication and Rhetoric
- RCM 404.3 Leadership as Communication
- <u>RCM 406.3</u> Studies in Communication Series
- <u>RCM 407.3</u> Rhetorical Editing
- <u>RCM 408.3</u> Rhetorical Composition Writing for the Public
- RCM 409.3 Negotiation as Rhetorical Practice
- RCM 410.3 Rhetoric of Science and Technology
- RCM 495.3 Rhetorical Peer Mentorship

Rationale: The incorporation of AGRC 445.3 into the Agricultural Entrepreneurship minor gives students an opportunity to participate in experiential learning as part of the minor.

Agribusiness

Diploma, Dip.(Agbus.)

Year 1 - Fall Term (15 credit units)

- AGRC 111.3 Discovery in Plant and Soil Sciences
- COMM 101.3 Introduction to Business
- ECON 111.3 Introductory Microeconomics

Choose 6 credit units of open electives:

Please note that students planning to ladder the Diploma in Agribusiness towards a Bachelor of Science in Agribusiness are advised to register in <u>MATH 104.3</u> Elementary Calculus (or an approved equivalent) as an open elective and <u>AREC 272.3</u> Introduction to Agricultural Economics as a restricted or open elective and meet with an advisor as soon as possible to plan their program.

Year 1 - Winter Term (15 credit units)

- AGRC 112.3 Animal Agriculture and Food Science
- AGRC 113.3 Agri Food Issues and Institutions
- AREC 230.3 Innovation and Entrepreneurship
- COMM 204.3 Introduction to Marketing

Choose 3 credit units of Open Electives:

Please note that students planning to ladder the Diploma in Agribusiness towards a Bachelor of Science in Agribusiness are advised to register in <u>MATH 104.3</u> Elementary Calculus (or an approved equivalent) as an open elective and <u>AREC 272.3</u> Introduction to Agricultural Economics as a restricted or open elective and meet with an advisor as soon as possible to plan their program.

Year 2 - Fall Term (15 credit units)

- AREC 222.3
- <u>COMM 201.3</u> Introduction to Financial Accounting
- RCM 200.3

Choose 3 credit units from the following restricted electives:

- AREC 220.3 History of Indigenous Agriculture in Canada
- AREC 238.3 Natural Resource Economics
- AREC 251.3 Introduction to Agricultural Policy
- AREC 254.3 Agribusiness Taxation
- AREC 272.3 Introduction to Agricultural Economics
- AREC 343.3 Grain and Livestock Marketing
- AREC 344.3 Follow the Grain
- AREC 346.3 Principles of Selling
- AREC 347.3 Agribusiness Marketing Management
- AREC 354.3 Agribusiness Management Information Systems
- <u>AREC 395.3</u> Creative Thinking and the Entrepreneurial Process

<u>AREC 400.3</u> Entrepreneurial Leadership Leading Development Change and Growth in New Business

Choose 3 credit units of Open Electives:

Please note that students planning to ladder the Diploma in Agribusiness towards a Bachelor of Science in Agribusiness are advised to register in <u>MATH 104.3</u> Elementary Calculus (or an approved equivalent) as an open elective and <u>AREC 272.3</u> Introduction to Agricultural Economics as a restricted or open elective and meet with an advisor as soon as possible to plan their program.

Year 2 - Winter Term (15 credit units)

• AREC 495.3 Agribusiness Venture Management

Choose 9 credit units from the following restricted electives:

- AREC 220.3 History of Indigenous Agriculture in Canada
- AREC 238.3 Natural Resource Economics
- AREC 251.3 Introduction to Agricultural Policy
- AREC 254.3 Agribusiness Taxation
- AREC 272.3 Introduction to Agricultural Economics
- AREC 343.3 Grain and Livestock Marketing
- AREC 344.3 Follow the Grain
- AREC 346.3 Principles of Selling
- AREC 347.3 Agribusiness Marketing Management
- AREC 354.3 Agribusiness Management Information Systems
- <u>AREC 395.3</u> Creative Thinking and the Entrepreneurial Process
- <u>AREC 400.3</u> Entrepreneurial Leadership Leading Development Change and Growth in New Business

Choose 3 credit units of Open Electives:

Please note that students planning to ladder the Diploma in Agribusiness towards a Bachelor of Science in Agribusiness are advised to register in <u>MATH 104.3</u> Elementary Calculus (or an approved equivalent) as an open elective and <u>AREC 272.3</u> Introduction to Agricultural Economics as a restricted or open elective and meet with an advisor as soon as possible to plan their program.

Rationale: The revisions to the restricted electives for the Diploma in Agribusiness reflect available course options.

University Course Challenge – December 2021

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)

<u>College</u>

Minor program revisions All Degree Programs

Add HIST 357.3, HIST 315.3, and HIST 316.3 to the list of courses eligible to be included in the Indigenous Learning requirement.

While the following list illustrates <u>all</u> courses eligible to be used in the College's Indigenous Learning Requirement, some fields of study will use a subset of this list. This is necessary to account for the variety of disciplines taught across the college. Specific options for each major will be shown in the Course and Program Catalogue, and programmed in Degree Works.

Indigenous Learning

Choose 3 credit units from the following:

- 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
- 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 257.3 The Canadian Prairie to 1905
- HIST 266.3 History Wars Issues in Native Newcomer Relations
- HIST 315.3 Indigenous Health History
- HIST 316.3 History of the Métis in Twentieth Century Prairie Canada
- INDG 107.3 Introduction to Canadian Indigenous Studies
- 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

Rationale: Each of the additional courses has been approved for inclusion in the list by the Indigenous Course Committee, which is a standing committee of the College of Arts and Science Faculty Council. More choice on this list will benefit students, who will have more flexibility to select a course that fits with their schedule and aligns with their interests.

Applied Mathematics

Minor program revisions: Minor in Applied Mathematics Add missing restriction against double counting courses in the Minor and in a B.Sc. (Type C) major.

Minor in Applied Mathematics

This Minor may be taken in conjunction with any degree in another subject area in the College of Arts and Science. Courses listed under the "C4 Major Requirement" of the student's program Major cannot be used to meet requirements for the minor.

The Minor average in Applied Mathematics will be calculated using the grades earned in all courses eligible to be included in the Minor program requirements. Students must complete at least two-thirds of the program requirements (rounded to the nearest highest multiple of 3 credit units) using courses offered by the University of Saskatchewan to meet the Residency requirement.

Requirements (24 credit units)

No change to program requirements.

Rationale: It is a requirement of all B.Sc. Minor programs that the courses required for the Minor may not also be counted toward the requirements for a B.Sc. (Type C) major. This statement was accidentally omitted when this minor was approved, and must be added in so that this program is consistent with all others of this type.

<u>Archaeology</u>

Minor program revisions:

Bachelor of Science Double Honours in Archaeology

Remove ARCH 462.3 as a required course in the Major; increase the number of restricted elective credit units in the Major.

Bachelor of Science Double Honours - Archaeology - Major 1 C4 Major Requirement (36 credit units)

- ARCH 361.6 Archaeological Field Methods
- <u>ARCH 462.3</u> Contemporary Archaeological Theory

Choose 6 credit units from the following:

• ...

Choose 9 credit units from the following:

• ...

Choose **12 15 credit units** from the following:

- ARCH 330.3 The Archaeology of Human Environmental Impact
- ARCH 350.3 Introduction to Boreal Forest Archaeology
- ARCH 352.3 Historical Archaeology
- ARCH 353.3 Plains Archaeology

- ARCH 385.3 Computer Applications in Archaeology
- ARCH 457.3
- ARCH 458.6 Zooarchaeology
- ARCH 459.3 Geoarchaeology
- ARCH 465.3 Spatial Analysis of Archaeological Data
- ARCH 470.3 Human Osteology
- ARCH 471.3 Forensic Anthropology
- ARCH 472.3 Palaeopathology
- ARCH 475.3 Bioarchaeology
- **BIOL 324.3** Plants and Human Affairs
- **<u>CPPS 310.3</u>** Basic Human Anatomy

Double Honours - Archaeology - Major 2 (Science Option) Requirements (36 credit units)

- ARCH 361.6 Archaeological Field Methods
- ARCH 462.3 Contemporary Archaeological Theory

Choose 6 credit units from the following:

• ...

Choose 9 credit units from the following:

• ...

Choose **12 15 credit units** from the following:

- ARCH 330.3 The Archaeology of Human Environmental Impact
- ARCH 350.3 Introduction to Boreal Forest Archaeology
- ARCH 352.3 Historical Archaeology
- ARCH 353.3 Plains Archaeology
- ARCH 385.3 Computer Applications in Archaeology
- ARCH 457.3
- ARCH 458.6 Zooarchaeology
- ARCH 459.3 Geoarchaeology
- ARCH 465.3 Spatial Analysis of Archaeological Data
- ARCH 470.3 Human Osteology
- ARCH 471.3 Forensic Anthropology
- ARCH 472.3 Palaeopathology
- ARCH 475.3 Bioarchaeology
- BIOL 324.3 Plants and Human Affairs
- **CPPS 310.3** Basic Human Anatomy

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

Rationale: The department's approach to teaching archaeological theory has changed, and this is now embedded within other senior level courses that students are already taking. For students interested in taking a course specifically focusing on contemporary issues and theory in archaeology and anthropology (archaeology being a sub-discipline of anthropology). ANTH 400.3 (Contemporary Issues in Archaeology and Anthropology) is available to them, as an elective.

Biomedical Neuroscience

Minor program revisions

Bachelor of Science (Biomedical Science) Honours and Four-year in Biomedical Neuroscience Add KIN 422.3, NEUR 420.3, and NEUR 480.3 as alternates to BIOL 430.3, NEUR 404.3, and PSY 448.3.

Bachelor of Science (Biomedical Science) Honours [B.Sc. (BMSC) Honours] - Biomedical Neuroscience

M5 Major Requirement (42 credit units)

- ACB 325.3 Advanced Cell Biology
- BIOL 226.3 Genes to Genomics
- CPPS 304.3
- CPPS 306.3
- NEUR 301.3 Fundamental Neuroscience Intercellular Communication
- **NEUR 334.3** Introductory Neuroanatomy
- NEUR 350.3 Fundamental Neuroscience
- NEUR 405.3 Current Topics in Neuroscience
- NEUR 432.6 Undergraduate Research Project in Neuroscience

Choose 3 credit units from the following:

• ...

Choose 3 credit units from the following:

- BIOL 430.3 Neurobiology of Behaviour
- KIN 422.3 Motor Control of Neurological Conditions
- **NEUR 404.3** Neurophysiology and Neuropharmacology
- NEUR 420.3 Drugs and Behavior
- NEUR 480.3 Neurobiology of Learning and Memory
- **PSY 448.3** Advanced Seminar in Neuroscience

Choose 6 credit units from the following:

• ...

Bachelor of Science (BMSC) Four-year [B.Sc. (BMSC) Four-year] - Biomedical Neuroscience M5 Major Requirement (36 credit units)

- ACB 325.3 Advanced Cell Biology
- BIOL 226.3 Genes to Genomics
- CPPS 304.3
- CPPS 306.3
- **NEUR 301.3** Fundamental Neuroscience Intercellular Communication
- NEUR 334.3 Introductory Neuroanatomy
- NEUR 350.3 Fundamental Neuroscience
- NEUR 405.3 Current Topics in Neuroscience

• ...

Choose 3 credit units from the following:

- BIOL 430.3 Neurobiology of Behaviour
- KIN 422.3 Motor Control of Neurological Conditions
- NEUR 404.3 Neurophysiology and Neuropharmacology
- NEUR 420.3 Drugs and Behavior
- NEUR 480.3 Neurobiology of Learning and Memory
- **PSY 448.3** Advanced Seminar in Neuroscience

Choose 6 credit units from the following:

• ...

Rationale: This change increases the options for students to complete the second/third 400-level course requirement in this program. The College of Kinesiology have agreed to revise the prerequisites for KIN 422.3 (Motor Control of Neurological Conditions) to allow BMNS students to register, as space permits. Addition of this course allows students with an interest in motor control and motor control disorders the opportunity to take an advanced course in this area. NEUR 420.3 (Drugs and Behavior) and NEUR 480.3 (Neurobiology of Learning and Memory) are proposed concurrently. Each of these courses is relevant to the field and will provide more options for students to pursue their interests.

New course(s) NEUR 420.3 Drugs and Behavior

3 Lecture Hours

This course will focus on how drugs affect behaviour by altering brain processes such as perception. learning and memory, and the abnormal recruitment of neural circuits involved in motivation and reward. Recent technical advancements have allowed for significant progress in understanding how drugs affect brain function, and particular attention will be paid to these emerging techniques. Students will actively contribute to generating the content for this course.

Prerequisite(s): NEUR 301.3 and NEUR 350.3

Note: Students in the Biomedical Neuroscience major will be given preferential access to register in this course.

Instructor: John Howland

Rationale: This has been an area of especially active research over the past 10 years, and the recent legalization of Cannabis in Canada has spurred it on. The instructor performs research in the area. It also expands the number of specialized 400-level course options in the Biomedical Neuroscience program.

NEUR 480.3 Neurobiology of Learning and Memory

3 Lecture Hours

A central research theme in neuroscience is the neurobiological basis of Learning and Memory. This course examines the seminal primary research papers in this field in student led seminar class discussions. Attention will be given to the broad array of recent methodological advances that have proved invaluable for neuroscientific investigations into the underlying neural mechanisms of learning and memory.

Prerequisite(s): NEUR 301.3 and NEUR 350.3

Note: Students with credit for NEUR 404 taken in the Fall Term of 2021-2022 (202109) cannot receive credit for this course. Students in the Biomedical Neuroscience major will be given preferential access to register in this course.

Instructor: Sean Mulligan

Rationale: Learning and memory is a central theme in the subject of neuroscience, and an area where significant technological advancements have been widely applied to increase our understanding of the topic. This course adds a specialized 400-level course to the Biomedical Neuroscience Program that will be of interest to students interested in Neuroscience.

Minor course revisions

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

Change to Note:

Old Note: NEUR 350.3 may be taken concurrently with permission of the instructor. Students in the Biomedical Neuroscience major will be given preferential access to register in this course. Students with credit for ACB 334 cannot take this course for credit.

New Note: Students in the Biomedical Neuroscience major will be given preferential access to register in this course. Students with credit for ACB 334 cannot take this course for credit.

Rationale: NEUR 350.3 is offered in the same term as NEUR 334.3 and many students will likely take both in their third year so we would like to change NEUR 350.3 to a pre/corequisite instead of a prerequisite to allow students to take NEUR 334.3 in their third year without contacting the course coordinator.

NEUR 404.3 Neurophysiology and Neuropharmacology

Prerequisite change:

Old prerequisite(s): NEUR 350.3, NEUR 301.3, PHPY 304.3, and PHPY 305.3, or permission of the instructor.

New prerequisite(s): NEUR 350.3, NEUR 301.3, and CPPS 306.3 or PHPY 305.3, or permission of the instructor.

Rationale: PHPY 305 was split into CPPS 306 and 307. CPPS 306 is mandatory in the BMNS program since the neuropharmacology component was moved from the former course (PHPY 305) to CPPS 306. PHPY 304 (CPPS 304) can be removed as a prerequisite since it is/was a prerequisite for CPPS 306 and PHPY 305.

NEUR 405.3 Current Topics in Neuroscience

Prerequisite change:

Old prerequisite(s): 9 credit units from ACB 325, ACB 334, NEUR 301, NEUR 350 or PSY 242. New prerequisite(s): 9 credit units from ACB 325, ACB 334, NEUR 301, or NEUR 350.

New Note: This course is restricted to students in the Biomedical Neuroscience Program. Rationale: The previous prerequisites included PSY 242 in an attempt to reduce the ability of students from other BMSC programs from taking the course. We would like to remove PSY 242 as a prerequisite since the content is not necessary to complete NEUR 405. Enrolment in NEUR 405 will be restricted to BMNS students due to limited capacity.

Biomedical Sciences

Minor course revisions

BMSC 350.3 Introduction to Epidemiology

New subject code: CHEP

Rationale: This course is taught by a faculty member in Community Health and Epidemiology. This change will make it easier to administer teaching assignments.

Cellular, Physiological, and Pharmacological Sciences

Minor program revisions

Bachelor of Science (Biomedical Science) Honours and Four-year in Cellular, Physiological, and Pharmacological Sciences

Add CPPS 402.3, CPPS 407.3, and CPPS 417.3 as optional courses in Requirement M5, move CPPS 337.3 within M5, and adjust the credit units required from the different lists.

Bachelor of Science (Biomedical Science) Honours [B.Sc. (BMSC) Honours] - Cellular,

Physiological and Pharmacological Sciences

M5 Major Requirement (42 credit units)

- ACB 310.3 Basic Human Anatomy
- ACB 325.3 Advanced Cell Biology
- BIOL 226.3 Genes to Genomics
- CPPS 304.3
- <u>CPPS 432.6</u> Undergraduate Research Project in Cellular Physiological and Pharmacological Sciences
- **PHPY 302.3** Human Physiology Transport Systems
- PHPY 303.3 Human Physiology Reproduction Growth and Energy Homeostasis

Choose 3 credit units from the following:

• ...

Choose 3 credit units from the following:

• ...

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

- <u>ACB 330.3</u> Principles of Development
- <u>CPPS 337.3</u> Experimental Design and the Health Care System
- NEUR 301.3 Fundamental Neuroscience Intercellular Communication
- NEUR 350.3 Fundamental Neuroscience

Choose **6 9 credit units** from the following:

- ACB 400.3 Imaging and Anatomy
- ACB 406.3 Comparative Vertebrate Histology
- CPPS 337.3 Experimental Design and the Health Care System
- CPPS 402.3 Immunometabolism in Health and Disease
- <u>CPPS 405.3</u> Current Topics in Cellular Physiological and Pharmacological Sciences
- CPPS 407.3 Advances in Anatomy and Histology
- CPPS 417.3 The Business of Healthcare
- **NEUR 404.3** Neurophysiology and Neuropharmacology
- **PHPY 401.3** Animal Surgery and Experimentation
- PHPY 403.3 Physiological Genomics and Pharmacogenetics
- PHPY 405.3 Advances in Cardiovascular Physiology and Pharmacology

Bachelor of Science (Biomedical Science) Four-year [B.Sc. (BMSC) Four-Year] - Cellular, **Physiological and Pharmacological Sciences** M5 Major Requirement (36 credit units)

- ACB 310.3 Basic Human Anatomy
- ACB 325.3 Advanced Cell Biology
- BIOL 226.3 Genes to Genomics
- CPPS 304.3
- PHPY 302.3 Human Physiology Transport Systems
- PHPY 303.3 Human Physiology Reproduction Growth and Energy Homeostasis

Choose 3 credit units from the following:

• ...

Choose 3 credit units from the following:

• ...

Choose 63 credit units from the following:

- ACB 330.3 Principles of Development
- CPPS 337.3 Experimental Design and the Health Care System
- NEUR 301.3 Fundamental Neuroscience Intercellular Communication
- NEUR 350.3 Fundamental Neuroscience

Choose 69 credit units from the following:

- ACB 400.3 Imaging and Anatomy
- ACB 406.3 Comparative Vertebrate Histology •
- **CPPS 337.3** Experimental Design and the Health Care System •
- CPPS 402.3 Immunometabolism in Health and Disease •
- CPPS 405.3 Current Topics in Cellular Physiological and Pharmacological Sciences •
- CPPS 407.3 Advances in Anatomy and Histology •
- CPPS 417.3 The Business of Healthcare
- NEUR 404.3 Neurophysiology and Neuropharmacology •
- PHPY 401.3 Animal Surgery and Experimentation
- PHPY 403.3 Physiological Genomics and Pharmacogenetics
- PHPY 405.3 Advances in Cardiovascular Physiology and Pharmacology

Rationale: CPPS 417 (The Business of Healthcare) contains content relevant to students in the CPPS program, particularly to the many students that will pursue further studies in a healthcare related field. It also increases the number of specialized 400-level courses available for use in the program. CPPS 402 (Immunometabolism in Health and Disease) and CPPS 407 (Advances in Anatomy and Histology) are proposed concurrently. Each of these courses is relevant to the field and will help to provide more options for students to pursue their interests. CPPS 337 is moved based on the fact that it originally was a 400level course (PHPY 402) - the content did not change significantly and the expectations for the course are in line with the majority of our other 400-level courses (written exams, presentations, study of recent relevant literature). By moving 3 CU's from the small list of 300-level courses to the larger list of 400-level courses, students will have more flexibility in completing the program requirements.

New course(s)

CPPS 402.3 Immunometabolism in Health and Disease

3 Lecture Hours

Immunometabolism refers to the study of the interplay between metabolic and immune systems. In the last three decades, this area of study has re-shaped many aspects of biomedicine. Now, immunometabolism is recognized to play important roles in homeostasis and its dysregulation has been linked to several chronic diseases that currently plague society. In this course, students will learn theorized biological origins of immunometabolism, how immunity influences metabolic homeostasis, how metabolism influences immunological responses. and how this relates to disease. While this content will be primarily based in preclinical research, students will also learn emerging therapies that have resulted from this research, particularly for diseases linked to obesity such as diabetes and cardiovascular disease.

Prerequisite(s): CPPS 302.3 and CPPS 303.3.

Note: Students in the Cellular, Physiological and Pharmacological Sciences major will be given preferential access to register in this course.

Instructor: Scott Widenmaier

Rationale: Common chronic diseases such as type 2 diabetes, cardiovascular disease, and fatty liver disease have been widely recognized as immuno-metabolic diseases. This refers to dysfunctional interplay between metabolic and immune systems that cause disease progression, which many emerging medicines aim to correct. Students in the BSc (BMSC) programs are most often planning to have careers in the science, administration, or delivery of health. In its current form, students in these programs will not have any teachings regarding the concept of immunometabolism or how it relates to the most common diseases in Canada. The course I am offering aims to expose students to this important area before they go on to their careers. This is an area of research interest of the instructor and will expand the number of specialized 400-level course offerings in the CPPS program.

CPPS 407.3 Advances in Anatomy and Histology

2 Lecture Hours; 2.5 Practicum Hours

The course is designed for students: a) to gain experience in Anatomy and Histology, with hands on dissection techniques of Cadavers by focusing on a select gross anatomy region (including Limbs, Thorax, Abdomen, Pelvis, Head and Neck), b) to study histological illustrations of the selected anatomical region.

Prerequisite(s): CPPS 310 or ACB 310, or equivalent with the consent of the course coordinator. Note: Course enrolment is limited. Students in the Cellular, Physiological and Pharmacological Sciences major will be given preferential access to register in this course.

Instructor: Adel Mohamed

Rationale: This course is being created to give students the opportunity to study anatomy and histology at a more advanced level than what is taught in CPPS 310. This course will increase the number of specialized 400-level courses within the CPPS program.

Minor course revisions

CPPS 337.3 Experimental Design and the Health Care System

Make CPPS 337 mutually exclusive with CPPS 417.3.

Change to Note:

Old Note: It is recommended that students complete PHPY 304.3 prior to taking this course. Students with credit for PHPY 402 may not receive credit for this course.

New Note: It is recommended that students complete PHPY 304.3 prior to taking this course. Students with credit for PHPY 402 may not receive credit for this course. Students may use only one of CPPS 337 or CPPS 417 to fulfill degree requirements for a single program.

Rationale: CPPS 337 and CPPS 417 contain related material and the department feels that students should not be able to take both courses to fulfill major requirements.

CPPS 417.3 The Business of Health Care

Make CPPS 417.3 mutually exclusive with CPPS 337.3. Rationale: See CPPS 337 above.

<u>Drama</u>

Minor program revisions:

Bachelor of Fine Arts (Acting) and Bachelor of Arts Double Honours, Four-year and Three-year in Drama

BFA - Acting:

F4 - Add DRAM 309 as a required course; remove requirement to choose 3 credit units from DRAM 303, 304, 309, 401, and 402.

BA Four-year: D4 - Add requirement to take one of DRAM 210 or 213; add requirement to take one of DRAM 218 or 220; add DRAM 309 as a required course; remove DRAM 303 and 304 are required courses; revise the two requirements to take 6 credit units from different lists to one requirement to take 9 credit units from one list including DRAM 210, 213, 218, 219, 220, 221, 231, 236, 320, 321, 324, and 325. D5 - add list of recommended electives.

BA Three-year: D4 - Add DRAM 119 as a required course; remove DRAM 309 as a required course; add requirement to choose one of DRAM 218, 220, or 309; revise requirement to choose 9 credit units from list to require students to choose 6 credit units from DRAM 210, 213, 218, 219, 220, 221, 231, and 309. BA Double Honours - Major 1 (D4) and Major 2: Add requirement to take DRAM 203 and 204; delete requirement to take one of DRAM 210 or 213; delete existing Option 1 in Theatre History; add new Option 1 in Design (as shown below); revise Option 2 (Acting) to add DRAM 309 to the list including DRAM 363, 368 and 418 and remove DRAM 418 from this list.

Bachelor of Fine Arts Honours (B.F.A. Honours) - Acting

F4 Major Requirement (72 credit units)

- **DRAM 110.3** Technical Theatre I Scenic Construction
- DRAM 111.3 Practicum I Indigenous Performance Methods
- DRAM 113.3 Technical Theatre II Stage Properties
- **DRAM 118.3** Acting 1
- DRAM 119.3 Acting II
- DRAM 203.3 History of Theatre from 600 BCE to 1850 CE
- DRAM 204.3 History of Theatre from 1850 to Present
- DRAM 210.3 Technical Theatre III Costume Construction
- DRAM 213.3 Technical Theatre IV Stage Management
- DRAM 218.3 Acting III
- DRAM 219.3 Acting IV Scene Study and Textual Analysis for the Stage
- DRAM 309.3 Theories of Acting and Directing
- DRAM 324.3 Acting V
- DRAM 325.3 Acting VI
- DRAM 362.3 Voice and Speech for the Actor I
- DRAM 363.3 Voice and Speech for the Actor II
- DRAM 366.3 Fundamentals of Movement I
- DRAM 368.3 Movement Fundamentals II
- DRAM 418.3 Acting VII
- DRAM 419.3 Acting VIII
- DRAM 462.3 Voice and Speech for the Actor III
- DRAM 463.3 Voice and Speech for the Actor IV
- DRAM 468.3 Expressive Movement I
- DRAM 469.3 Expressive Movement II

Choose 3 credit units from the following:

- DRAM 303.3 Advanced Studies in Theatre History I 600 BCE to 1850 CE
- DRAM 304.3 Advanced Studies in Theatre History II 1850 to Present
- DRAM 309.3 Theories of Acting and Directing

- DRAM 401.3 Dramatic Theory and Criticism
- DRAM 402.3 Studies in Canadian Theatre

Bachelor of Arts Four-year (B.A. Four-year) - Drama

D4 Major Requirement (39 credit units)

- **DRAM 110.3** Technical Theatre I Scenic Construction
- **DRAM 111.3** Practicum I Indigenous Performance Methods
- DRAM 113.3 Technical Theatre II Stage Properties
- DRAM 118.3 Acting 1
- DRAM 119.3 Acting II
- DRAM 203.3 History of Theatre from 600 BCE to 1850 CE
- DRAM 204.3 History of Theatre from 1850 to Present
- <u>DRAM 210.3</u> Technical Theatre III Costume Construction or <u>DRAM 213.3</u> Technical Theatre IV Stage Management
- DRAM 218.3 Acting III or DRAM 220.3 Theatre Design I Introduction
- DRAM 303.3 Advanced Studies in Theatre History I 600 BCE to 1850 CE
- DRAM 304.3 Advanced Studies in Theatre History II 1850 to Present
- **DRAM 309.3** Theories of Acting and Directing

Choose **6 9 credit units** from the following:

- DRAM 210.3 Technical Theatre III Costume Construction
- DRAM 213.3 Technical Theatre IV Stage Management
- DRAM 218.3 Acting III
- DRAM 219.3 Acting IV Scene Study and Textual Analysis for the Stage
- **DRAM 220.3** Theatre Design I Introduction
- DRAM 221.3 Theatre Design II Introduction
- DRAM 231.3 Indigenous Playwriting
- DRAM 236.3 Stage Combat
- DRAM 320.3 Theatre Design III Intermediate
- DRAM 321.3 Theatre Design IV Intermediate
- DRAM 324.3 Acting V
- DRAM 325.3 Acting VI
- DRAM 309.3 Theories of Acting and Directing
- DRAM 401.3 Dramatic Theory and Criticism
- DRAM 402.3 Studies in Canadian Theatre

Choose 6 credit units from the following:

- DRAM 210.3 Technical Theatre III Costume Construction
- DRAM 213.3 Technical Theatre IV Stage Management
- DRAM 218.3 Acting III
- DRAM 219.3 Acting IV Scene Study and Textual Analysis for the Stage
- DRAM 220.3 Theatre Design I Introduction
- DRAM 221.3 Theatre Design II Introduction
- DRAM 236.3 Stage Combat
- <u>DRAM 320.3</u> Theatre Design III Intermediate
- DRAM 321.3 Theatre Design IV Intermediate
- DRAM 324.3 Acting V
- DRAM 325.3 Acting VI
- <u>DRAM 330.3</u> Physical Theatre I Clown

- ENG 224.3 Shakespeare Comedy and History
- ENG 225.3 Shakespeare Tragedy and Romance
- ENG 288.3 Introduction to Film
- ENG 314.3 Early British Drama
- ENG 327.3 English Drama 1660 to 1737
- ENG 358.3 Canadian Drama

D5 Electives Requirement (51 credit units)

Arts and Science courses, or those from other Colleges that have been approved for Arts and Science credit, to complete the requirements for 120 credit unit Four-year program. Of 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.

It is recommended that students consider the following courses when selecting their electives:

- ART 236.3 Digital and Integrated Practice II A
- ART 237.3 Digital and Integrated Practice II B
- ART 340.3 Contemporary Performance Art Theory and Praxis
- ENG 220.3 Studies in the Craft of Writing
- **ENG 224.3** Shakespeare Comedy and History
- ENG 225.3 Shakespeare Tragedy and Romance
- ENG 233.3 Page and Stage
- ENG 243.3 Introduction to Indigenous Literatures
- ENG 282.3 Feminist Critical Theory and Literature by Women
- ENG 288.3 Introduction to Film
- ENG 308.3 Creative Nonfiction Workshop I
- ENG 309.3 Creative Nonfiction Workshop II
- ENG 314.3 Early British Drama
- ENG 324.3 Renaissance Drama
- ENG 327.3 English Drama 1660 to 1737
- ENG 358.3 Canadian Drama
- **ENG 365.6** Creative Writing Workshop
- ENG 366.3 Advanced Creative Writing Fiction
- ENG 377.3 Approaches to Modern and Contemporary Drama
- **ENG 383.3** Decolonizing Theories and Literatures
- FREN 160.3 Stardom in French Cinema
- FREN 260.3 Portraying Queer Identities in French Cinema and Television
- FREN 317.3 French Literature of 17th Century
- FREN 345.3 Theatre in Quebec
- FREN 350.3 Francophone Literature of Canadian West
- MUS 200.3 Music and Wellbeing
- PHIL 271.3 Aesthetics and Philosophy of Art
- PHIL 275.3 Philosophy of Film

Bachelor of Arts Three-year (B.A. Three-year) - Drama

D4 Major Requirement (33 credit units)

- DRAM 110.3 Technical Theatre I Scenic Construction
- **DRAM 111.3** Practicum I Indigenous Performance Methods
- DRAM 113.3 Technical Theatre II Stage Properties
- DRAM 118.3 Acting 1

- DRAM 119.3 Acting II
- DRAM 203.3 History of Theatre from 600 BCE to 1850 CE
- DRAM 204.3 History of Theatre from 1850 to Present
- DRAM 210.3 Technical Theatre III Costume Construction or DRAM 213.3 Technical Theatre IV
 Stage Management
- DRAM 309.3 Theories of Acting and Directing

- DRAM 218.3 Acting III
- DRAM 220.3 Theatre Design I Introduction
- **DRAM 309.3** Theories of Acting and Directing

Choose **96 credit units** from the following:

- DRAM 210.3 Technical Theatre III Costume Construction
- DRAM 213.3 Technical Theatre IV Stage Management
- DRAM 218.3 Acting III
- DRAM 219.3 Acting IV Scene Study and Textual Analysis for the Stage
- **DRAM 220.3** Theatre Design I Introduction
- **DRAM 221.3** Theatre Design II Introduction
- DRAM 231.3 Indigenous Playwriting
- DRAM 309.3 Theories of Acting and Directing
- DRAM 303.3 Advanced Studies in Theatre History I 600 BCE to 1850 CE
- DRAM 304.3 Advanced Studies in Theatre History II 1850 to Present
- DRAM 401.3 Dramatic Theory and Criticism
- DRAM 402.3 Studies in Canadian Theatre

Bachelor of Arts Double Honours - Drama - Major 1

D4 Major Requirement (42 credit units)

- DRAM 110.3 Technical Theatre I Scenic Construction
- DRAM 111.3 Practicum I Indigenous Performance Methods
- DRAM 113.3 Technical Theatre II Stage Properties
- **DRAM 118.3** Acting 1
- DRAM 119.3 Acting II
- DRAM 203.3 History of Theatre from 600 BCE to 1850 CE
- DRAM 204.3 History of Theatre from 1850 to Present
- <u>DRAM 210.3</u> Technical Theatre III Costume Construction or <u>DRAM 213.3</u> Technical Theatre IV Stage Management

Choose one of the following options:

Option 1: Theatre History (24 credit units)

- DRAM 203.3 History of Theatre from 600 BCE to 1850 CE
- DRAM 204.3 History of Theatre from 1850 to Present
- DRAM 303.3 Advanced Studies in Theatre History I 600 BCE to 1850 CE
- DRAM 304.3 Advanced Studies in Theatre History II 1850 to Present
- DRAM 309.3 Theories of Acting and Directing
- DRAM 401.3 Dramatic Theory and Criticism
- DRAM 402.3 Studies in Canadian Theatre

• ENG --- 100-Level courses

Option 1: Design (21 credit units)

- DRAM 210.3 Technical Theatre III Costume Construction
- DRAM 213.3 Technical Theatre IV Stage Management
- DRAM 220.3 Theatre Design I Introduction
- DRAM 221.3 Theatre Design II Introduction
- **DRAM 309.3** Theories of Acting and Directing
- DRAM 320.3 Theatre Design III Intermediate
- DRAM 321.3 Theatre Design IV Intermediate

Option 2: Acting (24 21 credit units)

- DRAM 218.3 Acting III
- DRAM 219.3 Acting IV Scene Study and Textual Analysis for the Stage
- DRAM 324.3 Acting V
- DRAM 325.3 Acting VI
- DRAM 362.3 Voice and Speech for the Actor I
- DRAM 366.3 Fundamentals of Movement I

Choose 3 credit units from the following:

- **DRAM 309.3** Theories of Acting and Directing
- DRAM 363.3 Voice and Speech for the Actor II
- DRAM 368.3 Movement Fundamentals II
- DRAM 418.3 Acting VII

Choose 3 credit units from the following:

- DRAM 203.3 History of Theatre from 600 BCE to 1850 CE
- DRAM 204.3 History of Theatre from 1850 to Present

Double Honours - Drama - Major 2

Requirements (42 credit units)

- DRAM 110.3 Technical Theatre I Scenic Construction
- DRAM 111.3 Practicum I Indigenous Performance Methods
- DRAM 113.3 Technical Theatre II Stage Properties
- DRAM 118.3 Acting 1
- DRAM 119.3 Acting II
- DRAM 203.3 History of Theatre from 600 BCE to 1850 CE
- **DRAM 204.3** History of Theatre from 1850 to Present
- DRAM 210.3 Technical Theatre III Costume Construction or DRAM 213.3 Technical Theatre IV
 Stage Management

Choose one of the following options:

Option 1: Theatre History (24 credit units)

- DRAM 203.3 History of Theatre from 600 BCE to 1850 CE
- DRAM 204.3 History of Theatre from 1850 to Present
- DRAM 303.3 Advanced Studies in Theatre History I 600 BCE to 1850 CE
- DRAM 304.3 Advanced Studies in Theatre History II 1850 to Present
- DRAM 309.3 Theories of Acting and Directing
- DRAM 401.3 Dramatic Theory and Criticism
- DRAM 402.3 Studies in Canadian Theatre

• ENG --- 100-Level courses

Option 1: Design (21 credit units)

- DRAM 210.3 Technical Theatre III Costume Construction
- DRAM 213.3 Technical Theatre IV Stage Management
- DRAM 220.3 Theatre Design I Introduction
- **DRAM 221.3** Theatre Design II Introduction
- DRAM 309.3 Theories of Acting and Directing
- DRAM 320.3 Theatre Design III Intermediate
- DRAM 321.3 Theatre Design IV Intermediate

Option 2: Acting (24 21 credit units)

- DRAM 218.3 Acting III
- DRAM 219.3 Acting IV Scene Study and Textual Analysis for the Stage
- **DRAM 324.3** Acting V
- DRAM 325.3 Acting VI
- DRAM 362.3 Voice and Speech for the Actor I
- DRAM 366.3 Fundamentals of Movement I

Choose 3 credit units from the following:

- **DRAM 309.3** Theories of Acting and Directing
- DRAM 363.3 Voice and Speech for the Actor II
- DRAM 368.3 Movement Fundamentals II
- DRAM 418.3 Acting VII

Choose 3 credit units from the following:

- DRAM 203.3 History of Theatre from 600 BCE to 1850 CE
- DRAM 204.3 History of Theatre from 1850 to Present

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

Rationale: With upcoming retirements occurring in our department - Theatre Historian Moira Day will be retired as of December 31, 2021, and Dwayne Brenna (who has also taught the occasional course in Theatre History) is on RARP (50% load through to June 30 2024) – the department can no longer offer the breadth of Theatre History classes that were offered in the past. Further, the changes outlined in this proposal aim toward the future of the department, and take into consideration the areas of expertise in the

faculty rejuvenation with the tenure-track hirings of Deneh'Cho Thompson and Shannon Blanchet, plus the five-year appointment of Kenneth MacKenzie.

Regarding the B.A. 3- and 4-year degree, the department also recognizes that the majority of students who pursue these programs do so in advance of entering the College of Education, with the ultimate aspiration of teaching Drama in the K - 12 system. Over the years that, students have provided feedback that they feel that they need more skills in the practical components of Acting and Design, rather than the theoretical (Theatre History) component. The department feels strongly that the changes proposed will encourage more students to pursue either the Three- or Four-year B.A. given that the skills covered will be applicable in classroom teaching, at either an elementary or secondary level.

Economics

Minor program revisions Bachelor of Arts Honours in Economics

Add ECON 416.3 (Financial Economics) as an option in the C4 Major Requirement, as shown below.

Bachelor of Arts Honours (B.A. Honours) - Economics

B4 Major Requirement (48 credit units)

At least 12 credit units must be at the 400-Level

- <u>ECON 111.3</u> Introductory Microeconomics
- <u>ECON 114.3</u> Introductory Macroeconomics
- ECON 211.3 Intermediate Microeconomics or ECON 273.3 Intermediate Microeconomic Theory
- <u>ECON 214.3</u> Intermediate Macroeconomics or <u>ECON 274.3</u> Intermediate Macroeconomic Theory
- <u>ECON 304.3</u> Introduction to Empirical Economics
- ECON 305.3 Quantitative Methods in Economics I or MATH 266.3 Linear Algebra II
- ECON 306.3 Quantitative Methods in Economics II or MATH 225.3 Intermediate Calculus I or MATH 276.3 Vector Calculus I
- ECON 389.3 Research Project in Economics or ECON 489.3 Research Project in Economics II
- ECON 408.3 Econometrics 1
- STAT 245.3 Introduction to Statistical Methods*

*See the <u>Statistics Course Regulations</u> section in the Academic Information & Policies section of this Catalogue.

Choose 3 credit units from the following:

- <u>ECON 373.3</u> Topics in Intermediate Microeconomic Theory
- ECON 412.3 Welfare Economics and General Equilibrium
- ECON 450.3 Strategic Choice
- ECON 473.3 Mathematical Introduction to Micro Theory
- ECON 474.3

Choose 3 credit units from the following:

- <u>ECON 374.3</u> Topics in Intermediate Macroeconomic Theory
- ECON 411.3 Monetary Theory
- ECON 414.3 Economic Growth
- ECON 416 Financial Economics

• ECON — 200-Level, 300-Level, 400-Level

Rationale: Macroeconomics is a core component in the Three- and Four-year B.A. programs in Economics, but crucial to the Honours program. Students must take 3 cu from a short list of classes at the senior level. Adding this new course will provide more flexibility to ensure that courses in this area are available each year.

New course(s):

ECON 416.3 Financial Economics

3 Lecture Hours

This course provides micro-foundations for modern finance. It covers asset pricing and the valuation of risky cash flows. It emphasizes the relationship between theory and data, applying economic and statistical tools to the study of financial markets.

Prerequisite(s): ECON 211.3 or ECON 273.3; and one of MATH 110.3. MATH 121.3. MATH 123.3, MATH 125.3, MATH 133.4 or MATH 176.3; and one of STAT 245.3 or COMM 207.3 or equivalent. Note: Students with credit for ECON 498.3 Financial Economics may not take this course for credit.

Instructor(s): M. Chaban, A. Pollak, E. Shao

Rationale: This course is an important addition to senior classes that will help our students meet their academic requirements and goals. Financial economics is an important branch of Economics that provides a theoretical and quantitative foundation for students to pursue future careers in the financial sector. This topic was offered as a special topics (Econ 498) in the winter 2021, and was well received by the students; in response to the positive feedback from students, the department agreed that a regular 400 level course should be offered.

Environmental Geoscience

Minor program revisions

Bachelor of Arts Honours and Four-year in Environmental Geoscience

In the C4 Major Requirement:

- Change the "Geochemistry & Mineralogy" heading to "Category A", and in this list, add GEOL 343.3 (Sedimentary Environments), GEOL 451.3 (Synchrotron Xray Absorption Spectroscopy), and GEOL 465.3 (Mineral Deposits). For the Honours program only: add GEOL 324.3 (Igneous Petrology), GEOL 325.3 (Metamorphic Petrology) to the list.
- Change the "Hydrogeology & Hydrology" heading to "Category B", and remove GEOL 487.3 (Geophysical Field Methods).
- Change the "Environmental Chemistry" heading to "Category C"
- Add GEOL 487.3 (Geophysical Field Methods) as an alternative to GEOL 308.3 (Field School Sedimentary Rocks) in the Fundamental Geosciences list.

Bachelor of Science Honours (B.Sc Honours) - Environmental Geoscience

C4 Major Requirement (54 credit units)

Introductory Geosciences (6 credit units)

- GEOL 121.3 Earth Processes
- GEOL 122.3 Earth History

Fundamental Geosciences (30 credit units)

- GEOL 206.3 Earth Systems
- GEOL 224.3 Mineralogy

- GEOL 226.3 Introductory Petrology
- GEOL 229.3 Introductory Geochemistry
- GEOL 245.3 Introduction to Sedimentary Rocks
- GEOL 258.3 Structural Geology
- <u>GEOL 308.3</u> Field School Sedimentary Rocks or <u>GEOL 487.3</u> Geophysical Field Methods
- <u>GEOL 384.3</u> Introduction to Applied Geophysics or <u>GEOL 334.3</u> Gravity Magnetics Electromagnetic and Radiation Methods
- GEOL 413.3 Aqueous Geochemistry
- GEOL 429.3 Isotope Geochemistry

Environmental Geosciences (18 credit units)

Category A Geochemistry & Mineralogy (6 credit units)

- <u>GEOL 315.3</u> Geomicrobiology
- **<u>GEOL 324.3</u>** Igneous Petrology
- **<u>GEOL 325.3</u>** Metamorphic Petrology
- **<u>GEOL 343.3</u>** Sedimentary Environments
- **<u>GEOL 350.3</u>** Organic Geochemistry
- **GEOL 451.3** Synchrotron Xray Absorption Spectroscopy
- **<u>GEOL 465.3</u>** Mineral Deposits
- <u>GEOL 490.3</u> Geological Sciences Research
- <u>GEOL 492.6</u> Geological Sciences Research

Category B Hydrogeology & Hydrology (6 credit units)

- SLSC 322.3 Environmental Soil Physics
- **GEOG 328.3** Groundwater Hydrology
- <u>GEOE 375.3</u> Engineering Hydrogeology
- GEOL 487.3 Geophysical Field Methods

Category C Environmental Chemistry (6 credit units)

- SLSC 313.3 Environmental Soil Chemistry
- **CHEM 375.3** Environmental Chemistry
- TOX 301.3 Environmental Toxicology
- EVSC 421.3 Contaminated Site Management and Remediation

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

C4 Major Requirement (54 credit units)

Introductory Geosciences (6 credit units)

- <u>GEOL 121.3</u> Earth Processes
- GEOL 122.3 Earth History

Fundamental Geosciences (30 credit units)

- GEOL 206.3 Earth Systems
- GEOL 224.3 Mineralogy
- GEOL 226.3 Introductory Petrology

- GEOL 229.3 Introductory Geochemistry
- GEOL 245.3 Introduction to Sedimentary Rocks
- GEOL 258.3 Structural Geology
- GEOL 308.3 Field School Sedimentary Rocks or GEOL 487.3 Geophysical Field Methods
- <u>GEOL 384.3</u> Introduction to Applied Geophysics or <u>GEOL 334.3</u> Gravity Magnetics Electromagnetic and Radiation Methods
- <u>GEOL 413.3</u> Aqueous Geochemistry
- GEOL 429.3 Isotope Geochemistry

Environmental Geosciences (18 credit units)

Category A Geochemistry & Mineralogy (6 credit units)

- GEOL 315.3 Geomicrobiology
- GEOL 324.3 Igneous Petrology
- <u>GEOL 325.3</u> Metamorphic Petrology
- **<u>GEOL 343.3</u>** Sedimentary Environments
- **GEOL 350.3** Organic Geochemistry
- GEOL 451.3 Synchrotron Xray Absorption Spectroscopy
- GEOL 465.3 Mineral Deposits

Category B Hydrogeology & Hydrology (6 credit units)

- <u>SLSC 322.3</u> Environmental Soil Physics
- <u>GEOG 328.3</u> Groundwater Hydrology
- <u>GEOE 375.3</u> Engineering Hydrogeology
- GEOL 487.3 Geophysical Field Methods

Category C Environmental Geochemistry (6 credit units)

- **SLSC 313.3** Environmental Soil Chemistry
- **<u>CHEM 375.3</u>** Environmental Chemistry
- TOX 301.3 Environmental Toxicology
- EVSC 421.3 Contaminated Site Management and Remediation

Rationale: These changes are being proposed for two key reasons: (i) to reflect recent changes in the department faculty complement that mean GEOL 315.3 Geomicrobiology and GEOL 350.3 Organic Geochemistry will be offered less frequently; and (ii) to provide additional course options for students to complete required courses under the Fundamental Geoscience and Environmental Geoscience subcategories of the C4 requirements. The addition of GEOL 487.3 as an optional course under the Fundamental Geoscience subcategory provides students with a different course option for meeting their Professional Geoscience field school requirement that is taught in Canada (GEOL 308.3 is taught in Montana, USA) and does not have supplemental travel costs. The addition of GEOL 324.3, GEOL 325.3, GEOL 343.3, GEOL 451.3, and GEOL 465.3 to the list of optional courses under Category A provides students with additional flexibility for completing their program and meeting knowledge requirements for P.Geo. registration.

Changing the Environmental Geoscience sub-headings in the C4 requirements to Category A, Category B, and Category C is proposed to reflect the fact that new courses under Category A do not directly align with the previous "Geochemistry & Mineralogy" sub-heading. This change provides flexibility to add new courses under various categories moving forward, and greater flexibility for students in course scheduling and course selection.

<u>French</u>

Minor program revisions

Bachelor of Arts Honours, Double Honours, Four-year and Three-year in French

Revise the A4 Major Requirement so students need take only one of FREN 220 or FREN 230, not both, as shown below.

Bachelor of Arts Honours (B.A. Honours) - French A4 Major Requirement (54 credit units)

Option 1 (54 credit units)

- FREN 122.3 Intermediate French I
- FREN 125.3 Intermediate French II
- FREN 212.3 Advanced French I
- FREN 218.3 Advanced French II
- FREN 220.3 Masterpieces of French Literature or FREN 230.3 Introduction to French Canadian Literature
- FREN 230.3 Introduction to French Canadian Literature
- FREN 400.0

Choose 12 credit units from the following restricted electives:

• ...

Choose 27 24 credit units of senior French, with at least 6 credit units at the 300-level or higher:

• FREN-200-Level, 300-Level, 400-Level

Option 2 (54 credit units)

- FREN 212.3 Advanced French I
- FREN 218.3 Advanced French II
- FREN 220.3 Masterpieces of French Literature or <u>FREN 230.3</u> Introduction to French Canadian Literature
- EREN 230.3 Introduction to French Canadian Literature
- FREN 400.0

Choose 12 credit units from the following restricted electives:

• ...

Choose 33 30 credit units senior French, with at least 6 credit units at the 300-level or higher:

• FREN — 200-Level, 300-Level, 400-Level

Bachelor of Arts Four-year (B.A. Four-year) - French

A4 Major Requirement (36 credit units)

Option 1 (36 credit units)

- FREN 122.3 Intermediate French I
- FREN 125.3 Intermediate French II
- FREN 212.3 Advanced French I
- FREN 218.3 Advanced French II
- FREN 220.3 Masterpieces of French Literature or FREN 230.3 Introduction to French Canadian Literature
- EREN 230.3 Introduction to French Canadian Literature

Choose 6 credit units from the following restricted electives:

• ...

Choose 42 15 credit units of senior French, with at least 6 credit units at the 300-level or higher:

• FREN — 200-Level, 300-Level, 400-Level

Option 2 (36 credit units)

- FREN 212.3 Advanced French I
- FREN 218.3 Advanced French II
- <u>FREN 220.3</u> Masterpieces of French Literature or <u>FREN 230.3</u> Introduction to French Canadian Literature
- FREN 230.3 Introduction to French Canadian Literature

Choose 6 credit units from the following restricted electives:

• ...

Choose **18 21 credit units** senior French, with at least 6 credit units at the 300-level or higher:

• FREN — 200-Level, 300-Level, 400-Level

Bachelor of Arts Three-year (B.A. Three-year) - French A4 Major Requirement (30 credit units)

Option 1 (30 credit units)

- FREN 122.3 Intermediate French I
- FREN 125.3 Intermediate French II
- FREN 212.3 Advanced French I
- FREN 218.3 Advanced French II
- FREN 220.3 Masterpieces of French Literature or FREN 230.3 Introduction to French Canadian Literature
- FREN 230.3 Introduction to French Canadian Literature

Choose 6 credit units from the following restricted electives:

• ...

Choose 69 credit units of senior French:

• FREN — 200-Level, 300-Level, 400-Level

Option 2 (30 credit units)

- FREN 212.3 Advanced French I
- FREN 218.3 Advanced French II
- FREN 220.3 Masterpieces of French Literature or FREN 230.3 Introduction to French Canadian Literature
- EREN 230.3 Introduction to French Canadian Literature

Choose 6 credit units from the following restricted electives:

• ...

Choose **12 15 credit units** senior French:

• FREN — 200-Level, 300-Level, 400-Level

Bachelor of Arts Double Honours - French - Major 1 A4 Major Requirement (36 - 39 credit units)

Option 1 (39 credit units)

- FREN 122.3 Intermediate French I
- FREN 125.3 Intermediate French II
- FREN 212.3 Advanced French I
- FREN 218.3 Advanced French II
- FREN 220.3 Masterpieces of French Literature or FREN 230.3 Introduction to French Canadian Literature
- FREN 230.3 Introduction to French Canadian Literature

Choose 6 credit units from the following restricted electives:

• ...

Choose **15** 18 credit units of senior French, with at least 6 credit units at the 300-level or higher:

• FREN — 200-Level, 300-Level, 400-Level

Option 2 (36 credit units)

- FREN 212.3 Advanced French I
- FREN 218.3 Advanced French II
- <u>FREN 220.3</u> Masterpieces of French Literature or <u>FREN 230.3</u> Introduction to French Canadian Literature
- FREN 230.3 Introduction to French Canadian Literature

Choose 6 credit units from the following restricted electives:

• ...

Choose **18 21 credit units** senior French, with at least 6 credit units at the 300-level or higher:

• FREN — 200-Level, 300-Level, 400-Level

Double Honours - French - Major 2

Option 1 (39 credit units)

- FREN 122.3 Intermediate French I
- FREN 125.3 Intermediate French II
- FREN 212.3 Advanced French I
- FREN 218.3 Advanced French II
- FREN 220.3 Masterpieces of French Literature or FREN 230.3 Introduction to French Canadian Literature
- FREN 230.3 Introduction to French Canadian Literature

Choose 6 credit units from the following restricted electives:

• ...

Choose **15** 18 credit units of senior French, with at least 6 credit units at the 300-level or higher:

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

Option 2 (36 credit units)

- FREN 212.3 Advanced French I
- FREN 218.3 Advanced French II
- FREN 220.3 Masterpieces of French Literature or <u>FREN 230.3</u> Introduction to French Canadian Literature
- EREN 230.3 Introduction to French Canadian Literature

Choose 6 credit units from the following restricted electives:

• ...

Choose 18 21 credit units senior French, with at least 6 credit units at the 300-level or higher:

• FREN — 200-Level, 300-Level, 400-Level

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

Rationale: The department proposes to change the program requirements to better reflect the existing course offerings in the French section, which include cinema, civilization, translation and French linguistics. By allowing students to take only one literature survey course (FREN 220 or FREN 230), they

will have more freedom to choose courses in these other areas. In addition, making this change enables students who are specializing in areas other than literature to take the courses they need to complete for their own program.

New course(s): FREN 310.3 Perfecting French Writing

3 Lecture Hours

This course will focus on the rules of grammar and the use of expressions and writing strategies that will improve the quality of your written work in French. Students will learn to draft and polish summaries, reviews, bibliographies, and essays, and will write a brief biography and a creative work. The goal of this course is to have students discover the pleasures of writing in French while perfecting their grammar and editing skills.

Prerequisite(s): FREN 212.3, FREN 213.3, FREN 214.3, or FREN 218.3

Note: Students with credit for FREN 312 may not have credit for this course.

Instructor(s): Marie-Diane Clarke, Stella Spriet, Romain Chareyron

Rationale: This course will be the equivalent of FREN 312. As in FREN 312, students will build on the grammatical knowledge they have acquired in FREN 212 and/or FREN 218, and will strengthen their written French. The difference is that the new course's content will involve more compositions and fewer exercises. These changes were introduced in response to students' needs as expressed in their evaluations of the former FREN 312, and the apparent need for improvement in the quality of their written French and essays.

Course deletion(s):

FREN 312.3 Perfecting French Style and Expression

Rationale: This course will be replaced by FREN 310.3, proposed above. FREN 312 is to be replaced by FREN 310 in all programs in which is appears; the two courses will be equivalent.

Health Studies

Minor program revisions

Bachelor of Arts and Science Honours and Four-year in Health Studies Replace GEOG 464 with GEOG 465, as shown below.

Bachelor of Arts and Science Honours (B.A.&Sc. Honours) - Health Studies - Biology, Development and Health

J4 Major Requirement (63-66 credit units)

• • •

A6. Choose 6 credit units from the following Health Studies Arts courses:

At least 3 credit units chosen to fulfill requirements 4, 5 or 6 must be at the 300-level or higher. PHIL 234 is strongly recommended for all students.

- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- ANTH 332.3 Anthropology of Contagion and Infectious Disease Critical Gender and Race Perspectives
- ..
- GEOG 386.3 Environmental Impact Assessment
- **<u>GEOG 420.3</u>** Cartography and Professional Communication
- GEOG 464.3 Geography of Health
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 253.3
- HIST 303.3 Sex Gender and Sexuality in Africa

- HIST 333.3
- HIST 334.3 History of Medicine Bugs to Drugs 1800 to the Present
- ...

Bachelor of Arts and Science Honours (B.A.&Sc. Honours) - Health Studies - Individual, Society and Health

J4 Major Requirement (63-66 credit units)

. . .

B6. Choose 6 credit units from the following Health Studies Arts courses:

At least 3 credit units chosen to fulfill requirements 4, 5 or 6 must be at the 300-level or higher. PHIL 234 is strongly recommended for all students.

- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- ANTH 332.3 Anthropology of Contagion and Infectious Disease Critical Gender and Race Perspectives
- ..
- **<u>GEOG 386.3</u>** Environmental Impact Assessment
- GEOG 420.3 Cartography and Professional Communication
- GEOG 464.3 Geography of Health
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 253.3
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 333.3
- HIST 334.3 History of Medicine Bugs to Drugs 1800 to the Present
- ...

Bachelor of Arts and Science Honours (B.A.&Sc. Honours) - Health Studies - Culture, Environment and Health

J4 Major Requirement (63 credit units)

•••

C6. Choose 6 credit units from the following Health Studies Arts courses:

At least 3 credit units chosen to fulfill requirements 4, 5 or 6 must be at the 300-level or higher. PHIL 234 is strongly recommended for all students.

- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- <u>ANTH 332.3</u> Anthropology of Contagion and Infectious Disease Critical Gender and Race Perspectives
- .
- GEOG 386.3 Environmental Impact Assessment
- GEOG 420.3 Cartography and Professional Communication
- GEOG 464.3 Geography of Health
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 253.3
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 333.3
- HIST 334.3 History of Medicine Bugs to Drugs 1800 to the Present

• ...

Bachelor of Arts and Science Honours (B.A.&Sc. Honours) - Health Studies - Changing Climates and Health

J4 Major Requirement (63 credit units)

•••

D2. Choose one of the following Arts clusters (12 credit units):

Additional requirement across all clusters:

• **<u>GEOG 364.3</u>** Geography of Environment and Health

Choose 9 credit units from <u>one</u> of the following clusters:

At least **3 credit units** must be at the 300-level or higher.

i. Changing Indigenous Environments

- GEOG 464.3 Geography of Health
- GEOG 465.3 Environment and Health in Indigenous Communities
- INDG 210.3 Indigenous Ways of Knowing or INDG 241.3 Weaving Indigenous Science and Western Science
- INDG 221.3 Indigenous Food Sovereignty

ii. Disasters

• ...

iii. Assessing and Planning

- GEOG 240.3 Sustainable Cities and Regions
- GEOG 322.3 Introduction to Geographic Information Systems
- GEOG 323.3 Remote Sensing
- GEOG 348.3 Introduction to Demography
- **GEOG 385.3** Analysis of Environmental Management and Policy Making
- GEOG 386.3 Environmental Impact Assessment
- GEOG 420.3 Cartography and Professional Communication
- GEOG 464.3 Geography of Health
- GEOG 465.3 Environment and Health in Indigenous Communities
- INDG 210.3 Indigenous Ways of Knowing
- PLAN 445.3 Planning with Indigenous Communities

•••

D6. Choose 6 credit units from the following Health Studies Arts courses:

At least 3 credit units chosen to fulfill D4, D5 OR D6 must be at the 300-level or higher. PHIL 234 is strongly recommended for all students.

- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- ANTH 332.3 Anthropology of Contagion and Infectious Disease Critical Gender and Race
 Perspectives
- ...
- GEOG 386.3 Environmental Impact Assessment
- GEOG 420.3 Cartography and Professional Communication
- GEOG 464.3 Geography of Health
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 253.3
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 333.3
- HIST 334.3 History of Medicine Bugs to Drugs 1800 to the Present
- ...

Bachelor of Arts and Science Four-year (B.A.&Sc. Four-year) - Health Studies- Biology,

<u>Development and Health</u> J4 Major Requirement (57 - 60 credit units)

• • •

A6. Choose 6 credit units from the following Health Studies Arts courses:

At least 3 credit units chosen to fulfill requirements 4, 5 or 6 must be at the 300-level or higher. PHIL 234 is strongly recommended for all students.

- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- <u>ANTH 332.3</u> Anthropology of Contagion and Infectious Disease Critical Gender and Race Perspectives
- ...
- GEOG 386.3 Environmental Impact Assessment
- GEOG 420.3 Cartography and Professional Communication
- GEOG 464.3 Geography of Health
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 253.3
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 333.3
- HIST 334.3 History of Medicine Bugs to Drugs 1800 to the Present
- ...

Bachelor of Arts and Science Four-year (B.A.&Sc. Four-year) - Health Studies-Individual, Society and Health

J4 Major Requirement (57-60 credit units)

•••

B6. Choose 6 credit units from the following Health Studies Arts courses:

At least 3 credit units chosen to fulfill requirements 4, 5 or 6 must be at the 300-level or higher. PHIL 234 is strongly recommended for all students.

- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- <u>ANTH 332.3</u> Anthropology of Contagion and Infectious Disease Critical Gender and Race Perspectives

- ...
- GEOG 386.3 Environmental Impact Assessment
- GEOG 420.3 Cartography and Professional Communication
- GEOG 464.3 Geography of Health
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 253.3
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 333.3
- HIST 334.3 History of Medicine Bugs to Drugs 1800 to the Present
- ..

Bachelor of Arts and Science Four-year (B.A.&Sc. Four-year) - Health Studies- Culture, Environment and Health

J4 Major Requirement (57 credit units)

•••

C6. Choose 6 credit units from the following Health Studies Arts courses:

At least 3 credit units chosen to fulfill requirements 4, 5 or 6 must be at the 300-level or higher. PHIL 234 is strongly recommended for all students.

- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- <u>ANTH 332.3</u> Anthropology of Contagion and Infectious Disease Critical Gender and Race Perspectives
- ..
- GEOG 386.3 Environmental Impact Assessment
- GEOG 420.3 Cartography and Professional Communication
- GEOG 464.3 Geography of Health
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 253.3
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 333.3
- HIST 334.3 History of Medicine Bugs to Drugs 1800 to the Present
- ...

Bachelor of Arts and Science Four-year (B.A.&Sc. Four-year) - Health Studies - Changing Climates and Health

J4 Major Requirement (57 credit units)

D2. Choose one of the following Arts clusters (12 credit units):

Additional requirement across all clusters:

• **<u>GEOG 364.3</u>** Geography of Environment and Health

Choose 9 credit units from one of the following clusters:

At least 3 credit units must be at the 300-level or higher.

i. Changing Indigenous Environments

- GEOG 464.3 Geography of Health
- GEOG 465.3 Environment and Health in Indigenous Communities
- INDG 210.3 Indigenous Ways of Knowing or INDG 241.3 Weaving Indigenous Science and Western Science
- INDG 221.3 Indigenous Food Sovereignty

ii. Disasters

· ...

iii. Assessing and Planning

- **<u>GEOG 240.3</u>** Sustainable Cities and Regions
- GEOG 322.3 Introduction to Geographic Information Systems
- GEOG 323.3 Remote Sensing
- **<u>GEOG 348.3</u>** Introduction to Demography
- GEOG 385.3 Analysis of Environmental Management and Policy Making
- GEOG 386.3 Environmental Impact Assessment
- GEOG 420.3 Cartography and Professional Communication
- GEOG 464.3 Geography of Health
- GEOG 465.3 Environment and Health in Indigenous Communities
- INDG 210.3 Indigenous Ways of Knowing
- PLAN 445.3 Planning with Indigenous Communities

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D6. Choose 6 credit units from the following Health Studies Arts courses:

At least 3 credit units chosen to fulfill D4, D5 OR D6 must be at the 300-level or higher. PHIL 234 is strongly recommended for all students.

- ANTH 231.3 Cross Cultural Perspectives on Health and Illness
- ANTH 332.3 Anthropology of Contagion and Infectious Disease Critical Gender and Race
 Perspectives
- ...
- GEOG 386.3 Environmental Impact Assessment
- GEOG 420.3 Cartography and Professional Communication
- GEOG 464.3 Geography of Health
- GEOG 465.3 Environment and Health in Indigenous Communities
- HIST 253.3
- HIST 303.3 Sex Gender and Sexuality in Africa
- HIST 333.3
- HIST 334.3 History of Medicine Bugs to Drugs 1800 to the Present
- ...

Rationale: GEOG 464 has replaced GEOG 465 in the department's course offerings. GEOG 464 features a greater emphasis on Indigenous health, as well as an in-community component.

<u>History</u>

New course(s):

HIST 470.3 War and Religion in Early Modern Europe

3 Seminar Hours

Why do humans make war? Why are humans religious? Does religion make people more prone to violence? This course brings an historical perspective to these important questions. Its focus is the early modern period of European history (1500-1800). Political philosophers and historians long associated this era with religious wars and religious violence, to which modern secular nation-states were the solution. This course examines important scholarly approaches to the origins of war and religion, and their interrelation. Seminar participants tackle the knotty problems of how historians make sense of events whose interpretation underlies many contemporary debates about religion as a source for, and threat to, human flourishing.

Prerequisite(s): 6 credit units of senior history of which 3 credit units must be 300-level, or permission of the instructor or the department.

Note: Students with credit for FREN 312 may not have credit for this course.

Instructor(s): Marie-Diane Clarke, Stella Spriet, Romain Chareyron

Rationale: This course diversifies the departments 400-level seminar offerings and reflects the research interests of the instructor.

Mathematics

Course deletion(s)

MATH 121.3 Mathematical Analysis for Business and Economics

MATH 121 was designed to teach introductory mathematics to students in the Edwards School of Business. Since ESB has developed COMM 121.3 (Business Mathematics) to serve that purpose, MATH 121 is no longer needed.

<u>Music</u>

Minor program revisions

Bachelor of Music Honours and Four-year and Bachelor of Arts Honours, Four-year and Threevear in Music

Add MUAP 212.1 to the list of ensemble courses and to the list of "A" ensembles, where needed.

Bachelor of Arts Honours (B.A. Honours) - Music

D4 Major Requirements (51 credit units)

- 1 credit unit MUAP Ensemble
- MUS 115.3 Introduction to Music Education
- MUS 120.2 Musicianship I
- MUS 121.2 Musicianship II
- MUS 133.3 Fundamentals of Music Theory I
- MUS 134.3 Fundamentals of Music Theory II
- MUS 155.3 Music in History and the Present
- <u>MUS 156.3</u> Music History I Compositions Cultures and Connections from Antiquity to the High Classical Period
- MUS 220.2 Musicianship III
- MUS 221.2 Musicianship IV
- MUS 233.3 Fundamentals of Music Theory III
- MUS 234.3 Fundamentals of Music Theory IV
- MUS 255.3

Choose **18 credit units** from the following: 12 credit units must be at the 300 or 400-level

- MUAP 201.1 Wind Orchestra
- MUAP 202.1 Concert Band
- MUAP 203.1 Greystone Singers
- MUAP 204.1 University Chorus
- MUAP 205.1 Orchestra with Strings
- MUAP 206.1 Music Theatre
- MUAP 207.1 Chamber Ensemble
- MUAP 208.1 Jazz Ensemble
- MUAP 210.1
- MUAP 211.1 Ensemble
- MUAP 212.1 Symphony Orchestra
- <u>MUS 100-Level, 200-Level, 300-Level, 400-Level</u>

Bachelor of Arts Four-year (B.A. Four-year) - Music

D4 Major Requirements (51 credit units)

- 1 credit unit MUAP Ensemble
- <u>MUS 115.3</u> Introduction to Music Education
- MUS 120.2 Musicianship I
- MUS 121.2 Musicianship II
- MUS 133.3 Fundamentals of Music Theory I
- MUS 134.3 Fundamentals of Music Theory II
- MUS 155.3 Music in History and the Present
- <u>MUS 156.3</u> Music History I Compositions Cultures and Connections from Antiquity to the High Classical Period
- MUS 220.2 Musicianship III
- MUS 221.2 Musicianship IV
- MUS 233.3 Fundamentals of Music Theory III
- MUS 234.3 Fundamentals of Music Theory IV
- MUS 255.3

Choose **18 credit units** from the following: 12 credit units must be at the 300 or 400-level

- MUAP 201.1 Wind Orchestra
- MUAP 202.1 Concert Band
- MUAP 203.1 Greystone Singers
- MUAP 204.1 University Chorus
- MUAP 205.1 Orchestra with Strings
- MUAP 206.1 Music Theatre
- MUAP 207.1 Chamber Ensemble
- MUAP 208.1 Jazz Ensemble
- MUAP 210.1
- MUAP 211.1 Ensemble
- MUAP 212.1 Symphony Orchestra
- MUS 100-Level, 200-Level, 300-Level, 400-Level

Bachelor of Arts Three-year (B.A. Three-year) - Music

D4 Major Requirements (42 credit units)

- 1 credit unit MUAP Ensemble
- MUS 115.3 Introduction to Music Education
- MUS 120.2 Musicianship I
- MUS 121.2 Musicianship II
- MUS 133.3 Fundamentals of Music Theory I
- MUS 134.3 Fundamentals of Music Theory II
- MUS 155.3 Music in History and the Present
- MUS 156.3 Music History I Compositions Cultures and Connections from Antiquity to the High Classical Period
- MUS 220.2 Musicianship III
- MUS 221.2 Musicianship IV
- MUS 233.3 Fundamentals of Music Theory III
- MUS 234.3 Fundamentals of Music Theory IV
- MUS 255.3

Choose **9 credit units** from the following: 6 credit units must be at the 300 or 400-level

- MUAP 201.1 Wind Orchestra
- MUAP 202.1 Concert Band
- MUAP 203.1 Greystone Singers
- MUAP 204.1 University Chorus
- MUAP 205.1 Orchestra with Strings
- MUAP 206.1 Music Theatre
- MUAP 207.1 Chamber Ensemble
- MUAP 208.1 Jazz Ensemble
- MUAP 210.1
- MUAP 211.1 Ensemble
- MUAP 212.1 Symphony Orchestra
- <u>MUS 100-Level, 200-Level, 300-Level, 400-Level</u>

Bachelor of Music Individualized (B.Mus. Individualized)

G4 Applied Music Ensemble (4 credit units)

Choose 4 credit units from the following:

- MUAP 201.1 Wind Orchestra
- MUAP 202.1 Concert Band
- MUAP 203.1 Greystone Singers
- MUAP 204.1 University Chorus
- MUAP 205.1 Orchestra with Strings
- MUAP 212.1 Symphony Orchestra

Bachelor of Music Performance Honours (B.Mus. Performance Honours) G4 Applied Music Ensemble (7 credit units)

Voice students must take 2 credit units of <u>MUAP 206.1</u> Music Theatre and 2 credit units of <u>MUAP</u> 203.1 Greystone Singers and/or <u>MUAP 204.1</u> University Chorus

Piano students must take 2 credit units of MUAP 207.1 Chamber Ensemble

All performance majors must participate in at least one departmental ensemble per year for four years.

- MUAP 300.0 B.Mus. Performance Third Year Recital
- MUAP 400.0 B.Mus. Performance Fourth Year Recital

Choose 2 credit units from the following:

- MUAP 201.1 Wind Orchestra
- MUAP 202.1 Concert Band
- MUAP 203.1 Greystone Singers
- MUAP 204.1 University Chorus
- MUAP 205.1 Orchestra with Strings
- MUAP 212.1 Symphony Orchestra

Choose **5 credit units** from the following:

- MUAP 201.1 Wind Orchestra
- MUAP 202.1 Concert Band
- MUAP 203.1 Greystone Singers
- MUAP 204.1 University Chorus
- MUAP 205.1 Orchestra with Strings
- MUAP 206.1 Music Theatre
- MUAP 207.1 Chamber Ensemble
- MUAP 208.1 Jazz Ensemble
- MUAP 209.1
- MUAP 210.1
- MUAP 211.1 Ensemble
- MUAP 212.1 Symphony Orchestra

Rationale: MUAP 212.1 Symphony Orchestra is a newly approved ensemble course. Music majors may choose this as one of their ensemble options.

Music Education

Minor program revisions Bachelor of Music Honours and Four-vear in Music Education Add MUAP 212.1 to the list of ensemble courses.

Bachelor of Music Honours (Music Education) (B.Mus.(Mus.Ed.)) - Early/Middle Years Bachelor of Music Honours (Music Education) (B.Mus.(Mus.Ed.)) - Secondary Bachelor of Music (Music Education) (B.Mus.(Mus.Ed.)) - Early/Middle Years Bachelor of Music (Music Education) (B.Mus.(Mus.Ed.)) - Secondary

G4 Applied Music Ensemble (4 credit units)

Choose 4 credit units from the following:

These courses may be taken more than once for credit. Students must complete at least one of these ensembles each year.

- MUAP 201.1 Wind Orchestra
- MUAP 202.1 Concert Band
- MUAP 203.1 Greystone Singers
- MUAP 204.1 University Chorus
- MUAP 205.1 Orchestra with Strings
- MUAP 212.1 Symphony Orchestra

Rationale: MUAP 212.1 Symphony Orchestra is a newly approved ensemble course. Music Education majors may choose this as one of their ensemble options.

Correction from October 2021 UCC - ARTH 351.3 (not 350.3)

Art History and Studio Art

New course(s):

ARTH 350.3 351.3 Historical Media Research and Practice

1 Lecture hour; 3 Practicum hours

A theoretical and practical course which explores the historical context of various art media through readings as well as hands-on studio projects. Students will gain experience researching and using older and sometimes forgotten techniques to develop an understanding of the larger theoretical frameworks that impacted art media over time. Specific media and emphasis will varv depending on the expertise of the instructor and might include photography, printmaking, sculpture or painting.

Prerequisite(s): By permission of the department

Note(s): ART 350 and ARTH 350 are cross-listed course offerings. Art History and Studio Art majors will receive studio art credit for ART 350, and Art History credit for ARTH 350. Students may not take both versions at the same time. Costs in addition to tuition may apply to this course. Students may take this course more than once for credit, provided the topics covered in each offering differ substantially. In such cases, students must consult the Department to ensure that the topics covered are different. Instructor(s): Susan Shantz, Jennifer Crane, Sandra Herron, Jacob Semko

Rationale: This course exists as ART350.3 and has been in place for over a decade. The Catalogue entry for ART 350 (currently) states that "This course can be used towards either studio or art history requirements in Art degree programs" and students have used recent offering for either studio or art history credit by informing the instructor and College as to how to count this course in their Degree Works program. This is an inefficient and often confusing process which we are seeking to clarify by creating a distinct ARTH version of the same course so students can select either the studio or art history version when they register.

Items for Information

Art History

Minor course revisions: ARTH 253.3 Aboriginal Art History I New course title: Indigenous Art History I

New course description: An introductory survey of Indigenous art history within the Canadian regions of the West Coast, Plateau, Western Sub-Arctic and Artic. Prerequisite change:

Old prerequisite(s): 3 credit units ARTH or Indigenous cognate course: INDG; ANTH 224.3; ARCH 353.3, ARCH 457.3; ENG 242.3, ENG 335.3, ENG 338.3; HIST 264.3, HIST 265.3, HIST 266.3, HIST 482.3;

POLS 222.3, POLS 322.3, POLS 323.3, POLS 422.3; SOC 219.3, SOC 319.3, SOC 341.3; OR other course on Indigenous peoples approved by the course instructor.

New prerequisite(s): 3 credits in 100-level ARTH or INDG courses; or permission from the instructor. Rationale: This change makes the prerequisites for this course consistent with other 200-level ARTH courses, which require only 3 credit units of 100-level ARTH courses, but also keeps open the pathway for students who have taken at least one course in Indigenous Studies. The change from "Aboriginal" to "Indigenous" in the title and description align with current use of terminology in the College of Arts and Science.

ARTH 255.3 Aboriginal Art History II

New course title: Indigenous Art History II

New course description: An introductory survey of Indigenous art history within the Canadian regions of the Plains, Woodlands, Eastern Sub-Arctic and East Coast.

Prerequisite change:

Old prerequisite(s): ARTH 120.3, ARTH 121.3, or ARTH 253.3

New prerequisite(s): 3 credits in 100-level ARTH or INDG courses; or permission from the instructor. Rationale: See ARTH 253 above.

ARTH 345.3 Saskatchewan Aboriginal Art History

New course title: Saskatchewan Indigenous Art History

New course description: This survey course reviews the art history of Indigenous peoples of Saskatchewan from the periods of Artefact (pre-1700s). Transitional (1700-1900), and Modern-Contemporary (1900-today). Works to be examined include rock art, architecture, pottery, pipes, shields, drums, painted robes, clothing, moccasins, bags, and mix-media Modern-Contemporary works. Prerequisite change:

Old prerequisite(s): 3 credit units of ARTH or 3 credit units in Indigenous Studies or Indigenous courses from INDG; ANTH 224.3; ARCH 353.3, 457.3; HIST 264.3, 265.3, 266.3, 482.3; POLS 222.3, 322.3, 323.3, 422.3; SOC 219.3, 319.3, 341.3; EIND 380.3, 450.3.

New prerequisite(s): 6 credits ARTH or INDG courses, or permission from the instructor.

Rationale: This change makes the prerequisites for this course consistent with other 300-level ARTH courses, which require only 6 credit units of 100-level ARTH courses, but also keeps open the pathway for students who have taken at least two courses in Indigenous Studies. The change from "Aboriginal" to "Indigenous" in the title and description align with current use of terminology in the College of Arts and Science.

ARTH 355.3 Contemporary Aboriginal Art I

New course title: Contemporary Indigenous Art I

New course description: This seminar will examine contemporary Indigenous art, from the mid 1900s up until today. Emphasis will be on Canadian artists.

Prerequisite change:

Old prerequisite(s): 6 credit units from ARTH 120.3, ARTH 121.3, ARTH 253.3, or ARTH 255.3. New prerequisite(s): 6 credits ARTH or INDG courses, or permission from the instructor. Rationale: See ARTH 345 above.

ARTH 455.3 Contemporary Aboriginal Art II

New course title: Contemporary Indigenous Art II

New course description: This seminar will examine contemporary Indigenous art, from the late 1900s to the present day. Emphasis will be on international artists and exhibitions.

Prerequisite change:

Old prerequisite(s): 6 credit units from ARTH 120, ARTH 121, ARTH 253, ARTH 255, ARTH 355. New prerequisite(s): ARTH 355.3 or permission from the instructor.

Rationale: The prerequisite change ensures that students have the appropriate background in Indigenous art history before taking this course. The change from "Aboriginal" to "Indigenous" in the title and description align with current use of terminology in the College of Arts and Science.

Studio Art

Minor course revisions ART 237 Digital and Integrated Practice II B Prerequisite change:

Old prerequisite(s): ART 236.3

New prerequisite(s): 3 credit units 100-level ART courses or permission of the department. Rationale: This change will improve flexibility in course scheduling and make the course more accessible to interested students. The change will make the prerequisite in line with ART 236 and the other digital offerings at the 200-level. Students do not need to take ART 236 ahead of ART 237 to be successful in ART 237.

ART 338.3 Digital and Integrated Practice III A

Old prerequisite(s): ART 237.3 New prerequisite(s): ART 236.3 or ART 237.3 Rationale: The skills learned in each of the 200-level courses can be carried forward into either of the 300-level classes and in most cases will enrich the student experience as they will broaden their subject/material base.

ART 339.3 Digital and Integrated Practice IIIB

Old prerequisite(s): ART 338.3 New prerequisite(s): ART 236.3 or ART 237.3 Rationale: See ART 338, above.



College of Education – December 2021 University Course Challenge

The curricular revisions listed below were approved by the College of Education Faculty Council on Friday, November 26, 2021 and are now submitted to the University Course Challenge for approval.

Contact: Arvelle Van Dyck (arvelle.vandyck@usask.ca)

Bachelor of Education - Indian Teacher Education Program (ITEP)

Changes to the Indian Teacher Education Program (ITEP) route include the addition of the first year Education Learning Communities to align more closely to the other B.Ed. program routes, and to provide a programmatic avenue for community-building, student support and Indigenous knowledge to be uplifted within and across the program.

ITEP - Bachelor of Education (B.Ed.) - Early/Middle Years

Year 1 (27 credit units)

Education Learning Communities

- EDLC 101.0 Education Learning Community On Campus
- EDLC 102.0 Education Learning Community in Our City

ITEP - Bachelor of Education (B.Ed.) - Secondary

Year 1 (30 credit units)

Education Learning Communities

- <u>EDLC 101.0</u> Education Learning Community On Campus
- EDLC 102.0 Education Learning Community in Our City

<u>Bachelor of Education (B.Ed.) – Technical Vocational (TV) Stream and Certificate in Secondary</u> <u>Technical Vocational Education (CSTVE)</u>

Cabinetmaker has been added to the list of acceptable Journeyperson's Certificates required for the B.Ed. – Technical Vocational Stream and Certificate in Secondary Technical Vocational Education (CSTVE).

Bachelor of Education (B.Ed.) - Technical Vocational Stream

This four-year program is for students who wish to specialize in Technical Vocational education.

Information about the courses that count towards the Secondary Teaching Areas 1 and 2 is available under the Bachelor of Education (B.Ed.) program listing in this Catalogue (see <u>Secondary Teaching Areas</u>).

Year 1 - 30 credit units

• Journey Person Certificate (The Journey Person Certificate is equivalent to 30 credit units of the Technical Vocational Degree and is the Teaching Area 1).

Please note: the following list of acceptable Saskatchewan Journeyperson's Certificates: Agricultural Mechanic, Automotive Service Technician, Cabinetmaker, Carpentry, Commercial Cook, Construction Electrician, Electronics (formerly Radio and Television Repair), Esthetician-Skin Care Technician, Hairstylist, Heavy Duty Equipment Mechanic, Industrial Mechanic (Millwright), Ironworker, Machinist, Plumbing, and Welding. Among acceptable Diplomas in Technology or the Applied Arts are: Civil Technology, Drafting Technology, Electrical Technology, Electronics Technology, and Mechanical and Architectural Technology.

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Certificate in Secondary Technical Vocational Education (C.S.T.V.E.)

Year 1 (30 credit units)

• Journey Person Certificate (The Journey Person Certificate is equivalent to 30 credit units of the Certificate in Secondary Technical Vocational Education and is the Teaching Area 1).

Please note: the following list of acceptable Saskatchewan Journeyperson's Certificates: Agricultural Mechanic, Automotive Service Technician, Bricklayer, Cabinetmaker, Carpentry, Commercial Cook, Construction Electrician, Electrician, Electronics (formerly Radio and Television Repair), Esthetician-Skin Care Technician, Hairstylist, Heavy Duty Equipment Mechanic, Industrial Mechanic (Millwright), Ironworker, Machinist, Plumbing, and Welding. Among acceptable Diplomas in Technology or the Applied Arts are: Civil Technology, Drafting Technology, Electrical Technology, Electronics Technology, and Mechanical and Architectural Technology.

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<u>Revisions to History Courses listed in Indigenous Studies and Social Sciences/Social Studies</u> <u>Teaching Areas</u>

In consultation with the Department of History in the College of Arts and Science, the History courses listed as part of the Indigenous Studies and Social Sciences/Social Studies teaching areas are being updated.

Note: Regardless of level (Early/Middle Years or Secondary), students with a teaching area of Social Sciences/Social Studies must enroll in a course(s) with Indigenous Studies content and a course(s) with History content. Also, at least 6 credit units of the teaching area must include Canadian content.

The changes include:

- To add the following HIST courses to the Indigenous Studies content area of the Social Sciences/Social Studies Teaching Areas and to the Indigenous Studies Teaching Areas:
 - o HIST 193.3: History Matters Topics in Canadian History

- HIST 195.3: Indigenous Perspectives on Canadian History (already part of the Indigenous Studies Teaching Area)
- HIST 257.3: The Canadian Prairies to 1905
- o HIST 316.3: History of the Metis in 20th Century Prairie Canada
- o HIST 366.3: Indigenous Women's Life Stories in Early North America
- HIST 367.3: Early Indigenous North American Diasporas
- HIST 432.3: Early North American Ethnohistories (Future title: Turtle Island Stories: From Erasure to Empowerment in Early North American Ethnohistory)
- HIST 468.3: Topics in Urban History Saskatoon Indigenous History
- To remove the following HIST courses from all lists in the Social Sciences/Social Studies and Indigenous Studies teaching area entries since they are no longer offered:
 - HIST 253.3: Bringing up the Bodies in History
 - o HIST 263.6: The Canadian North
 - o HIST 265.3: Native Newcomer Relations in Canada 1880 to Present
 - o HIST 266.3: History Wars Issues in Native Newcomer Relations
 - o HIST 364.3: Imagining American and Canadian Wests
- To add the following HIST courses to the Canadian content list included in the catalogue as part of the Social Sciences/Social Studies teaching area:
 - HIST 193.3: History Matters Topics in Canadian History
 - HIST 316.3: History of the Metis in 20th Century Prairie Canada
 - o HIST 366.3: Indigenous Women's Life Stories in Early North America
 - HIST 370.3: Violence and Smuggling and Vice Borderlands and the Gaps of Power
 - HIST 415.3: 20th Century Canadian Popular Culture
 - o HIST 430.3: Gender and sexuality in Western Canada
 - HIST 466.3: Canada and the Great War
 - o HIST 468.3: Topics in Urban History Saskatoon Indigenous History

Bachelor of Education (B.Ed.) - Early/Middle Years Program and Bachelor of Education (B.Ed.) - Secondary Program

Indigenous Studies Teaching Area 1 and 2

Choose X credit units from the following Indigenous Studies courses:

• <u>INDG — 100-Level</u>, 200-Level, 300-Level, 400-Level

Choose an additional X credit units from the following Indigenous Studies courses:

- <u>INDG 200-Level</u>, 300-Level, 400-Level
- HIST 193.3: History Matters Topics in Canadian History
- <u>HIST 195.3</u> History Matters Indigenous Perspectives on Canadian History
- HIST 265.3
- HIST 257.3 The Canadian Prairies to 1905
- HIST 315.3 Indigenous Health History

- HIST 316.3 History of the Metis in 20th Century Prairie Canada
- HIST 366.3 Indigenous Women's Life Stories in Early North America
- HIST 367.3 Early Indigenous North American Diasporas
- HIST 432.2 Early North American Ethnohistories
- HIST 468.3 Topics in Urban History Saskatoon Indigenous History
- <u>KIN 306.3</u> Introduction to Indigenous Wellness
- POLS 222.3 Indigenous Governance and Politics
- POLS 322.3 First Nations Management and Administrative Systems
- POLS 323.3 First Nations Policies and Programs
- <u>SOC 219.3</u> Indigenous Peoples and Justice in Canada
- SOC 319.3 Indigenous People in Urban Areas
- SOC 341.3 Institutional Racism and Indigenous People

X represents (Indigenous Studies courses; Additional Indigenous Studies courses):

- Students at the Early/Middle Years level with a Teaching Area 1 of Indigenous Studies require 6 and 12 credit units, respectively. Those with a Teaching Area 2 of Indigenous Studies require 6 and 6 credit units, respectively.
- Students at the Secondary level with a Teaching Area 1 of Indigenous Studies require 6 and 18 credit units, respectively. Those with a Teaching Area 2 of Indigenous Studies require 6 and 9 credit units, respectively.

Bachelor of Education (B.Ed.) - Early/Middle Years Program and Bachelor of Education (B.Ed.) - Secondary Program

Social Sciences/Social Studies Teaching Area

Choose X credit units from the following Indigenous Studies courses:

- INDG 100-Level, 200-Level, 300-Level, 400-Level
- ARTH 323.3 European Colonialism in Visual Arts 1880 to 1920
- ARTH 345.3 Saskatchewan Aboriginal Art History
- <u>HIST 193.3</u> History Matters Topics in Canadian History*
 *with the topic *Turtle Island: A History of North America's Ancient Civilizations*
- HIST 195.3 Indigenous Perspectives on Canadian History
- HIST 257.3 The Canadian Prairies to 1905*
- •___HIST 265.3
- HIST 315.3 Indigenous Health History
- HIST 316.3 History of the Metis in 20th Century Prairie Canada
- HIST 366.3 Indigenous Women's Life Stories in Early North America
- HIST 367.3 Early Indigenous North American Diasporas
- HIST 432.2 Early North American Ethnohistories
- HIST 468.3 Topics in Urban History Saskatoon Indigenous History
- <u>KIN 306.3</u> Introduction to Indigenous Wellness
- POLS 222.3 Indigenous Governance and Politics
- <u>POLS 322.3</u> First Nations Management and Administrative Systems
- POLS 323.3 First Nations Policies and Programs
- SOC 219.3 Indigenous Peoples and Justice in Canada
- SOC 319.3 Indigenous People in Urban Areas
- SOC 341.3 Institutional Racism and Indigenous People

Choose X credit units from the following History courses:

- HIST 100-Level, 200-Level, 300-Level, 400-Level
- INDG 212.3 Nehiyaw Tapsinowin Cree Cultural Histories
- INDG 216.3 The Presence of the Past in Contemporary Indigenous Life
- INDG 280.6 Metis History in Western Canada
- INDG 281.3 First Nations History in Western Canada

Choose X credit units from the following Social Sciences/Social Studies courses:

- ANTH 100-Level, 200-Level, 300-Level, 400-Level
- CMRS 100-Level, 200-Level, 300-Level, 400-Level
- CTST 100-Level, 200-Level, 300-Level, 400-Level
- ECON 100-Level, 200-Level, 300-Level, 400-Level
- HIST 100-Level, 200-Level, 300-Level, 400-Level
- INDG 100-Level, 200-Level, 300-Level, 400-Level
- IS 100-Level, 200-Level, 300-Level, 400-Level
- <u>PHIL 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>POLS 100-Level, 200-Level, 300-Level, 400-Level</u>
- <u>PSY 100-Level, 200-Level, 300-Level, 400-Level</u>

- <u>RLST 100-Level</u>, 200-Level, 300-Level, 400-Level
- SOC 100-Level, 200-Level, 300-Level, 400-Level
- WGST 100-Level, 200-Level, 300-Level, 400-Level
- <u>CLAS 110.3</u> Greek Civilization
- CLAS 111.3 Roman Civilization
- CLAS 220.3 Daily Life in Ancient Greece and Rome
- CLAS 225.3 Women in Antiquity
- CLAS 240.3 Ancient Art and Architecture I Bronze Age to Classical Greece
- CLAS 242.3 Ancient Art and Architecture II Graeco Roman World
- CLAS 247.3
- CLAS 248.3
- <u>GEOG 130.3</u> Environment Health and Planning
- <u>GEOG 202.3</u> Regional Geography of Canada
- <u>GEOG 204.3</u> Geography of the Prairie Region
- GEOG 208.3 World Regional Development
- <u>GEOG 240.3</u> Sustainable Cities and Regions
- GEOG 340.3
- <u>GEOG 364.3</u> Geography of Environment and Health
- <u>GEOG 381.3</u> Development in the Canadian North Issues and Challenges
- <u>GEOG 385.3</u> Analysis of Environmental Management and Policy Making
- <u>GEOG 386.3</u> Environmental Impact Assessment
- <u>GEOG 491.3</u> Honours Thesis in Environment and Planning
- HIST 195.3 History Matters Indigenous Perspectives on Canadian History
- PLAN 341.3 Urban Planning
- PLAN 343.3 Legal Issues in Planning
- PLAN 346.3 Introduction to Urban Design
- PLAN 350.3 Transportation Planning and Geography
- PLAN 392.3 History of the Built Environment from Antiquity to Early Modernity
- <u>PLAN 442.3</u> Regional Planning
- PLAN 446.3 Advanced Urban Design Studio

X represents (Indigenous Studies Content; History Content; and Social Sciences/Social Studies Content):

- Students at the Early/Middle Years level with a Teaching Area 1 of Social Sciences/Social Studies require **6**, **6**, and **6** credit units, respectively. Those with a Teaching Area 2 of Social Sciences/Social Studies require **3**, **3**, and **6** credit units, respectively.
- Students at the Secondary level with a Teaching Area 1 of Social Sciences/Social Studies require 6, 6, and 12 credit units, respectively. Those with a Teaching Area 2 of Social Sciences/Social Studies require 6, 6, and 3 credit units, respectively.

The list of courses with Canadian content

HIST courses with Canadian content are:

- HIST 100-Level (only those sections containing Canadian content will be considered; consult an academic advisor)
- HIST 193.3: History Matters Topics in Canadian History
- HIST 195.3 History Matters Indigenous Perspectives on Canadian History
 HIST 253.3
- <u>HIST 255.3</u> Canadian History from the Pre Contact Period to 1867
- HIST 256.3 Post Confederation Canada 1867 to the Present
- HIST 257.3 The Canadian Prairie to 1905
- HIST 258.3 The Canadian Prairies since 1905
- HIST 259.3 Canadian Women from Pre Contact Period to 1918
- HIST 260.3 Canadian Women History from 1919 to Present
- ← HIST 263.6
- ← <u>HIST 265.3</u>
- <u>HIST 266.3</u> History Wars Issues in Native Newcomer Relations
- o HIST 310.3 Beavers Booze and Bully Boys Fur Trade Wars in North America
- HIST 316.3 History of the Metis in 20th Century Prairie Canada*
- HIST 350.3 The War That Shaped a Continent The Seven Years War and the Conquest of Canada
- o HIST 353.3 Pests Plagues Pox and Politics A History of Health Care in Canada
- HIST 363.3 Canada in Age of Affluence Post 1945
- ⊖ <mark>HIST 364.3</mark>
- <u>HIST 365.3</u> Recipes for a Nation Food History in Canada
- HIST 366.3 Indigenous Women's Life Stories in Early North America*
- HIST 370.3 Violence and Smuggling and Vice*
- HIST 410.3 France in the Americas 1500 to 1803 In Search of Empire
- HIST 415.3 20th Century Canadian Popular Culture *
- HIST 430.3 Gender and sexuality in Western Canada*
- <u>HIST 466.3</u> Canada and the Great War HIST 468.3 Topics in Urban History Saskatoon Indigenous History*
- ECON course with Canadian content is:
 - ECON 231.3
- GEOG courses with Canadian content are: <u>GEOG 202.3</u> Regional Geography of Canada
 - o <u>GEOG 204.3</u> Geography of the Prairie Region
 - o <u>GEOG 381.3</u> Development in the Canadian North Issues and Challenges
 - <u>GEOG 386.3</u> Environmental Impact Assessment
 - PLAN 342.3
 - <u>PLAN 343.3</u> Legal Issues in Planning
 - o <u>PLAN 442.3</u> Regional Planning
- KIN courses with Canadian content are:
 - <u>KIN 306.3</u> Introduction to Indigenous Wellness
- POLS courses with Canadian content are: POLS 204.3 Canadian Political Institutions
 - POLS 205.3 Canadian Politics and Society
 - POLS 222.3 Indigenous Governance and Politics

- o POLS 225.3 Canadian Public Administration and Administrative Law
- POLS 226.3 Canadian Public Policy
- POLS 303.3 Public Law and the Courts in Canada
- POLS 304.3 Democracy and the Charter of Rights and Freedoms
- <u>POLS 305.3</u> Provincial Politics and Policy
- POLS 306.3 Local Governance and Policy
- POLS 307.3
- <u>POLS 322.3</u> First Nations Management and Administrative Systems
- <u>POLS 323.3</u> First Nations Policies and Programs
- POLS 349.3 Politics of Canadian Diversity
- POLS 375.3 Canadian Foreign Policy in the Global Era
- o POLS 404.3 Canadian Federalism and Intergovernmental Relations
- POLS 405.3 Canadian Elections and Political Parties
- POLS 422.3 First Nations Governance
- o POLS 425.3 Multilevel Governance and Partnerships
- SOC courses with Canadian content are: <u>SOC 203.3</u> Race and Ethnic Relations in Canada
 - <u>SOC 204.3</u> Rural Sociology
 - o <u>SOC 219.3</u> Indigenous Peoples and Justice in Canada
 - o <u>SOC 227.6</u> Critical Issues in Canadian Society
 - <u>SOC 244.3</u> Sociology of Mass Media in Canada
 - o <u>SOC 246.3</u> Ideology and Mass Communication
 - <u>SOC 319.3</u> Indigenous People in Urban Areas
 - o SOC 341.3 Institutional Racism and Indigenous People

Please Note: all INDG courses are acceptable, except <u>INDG 221.3</u> Indigenous Food Sovereignty and INDG 272.3



UNIVERSITY COURSE CHALLENGE SUBMISSION DECEMBER 2021

The following curricular revisions have been approved by the College of Graduate and Postdoctoral Studies and are being submitted here for final approval:

Minor Program Revisions

Food and Bioproduct Sciences

Post-Graduate Diploma in Food and Bioproduct Sciences Revised Diploma Requirements

GPS 960.0 GPS 961.0 GPS 962.0 FABS 801.3 a minimum of 27 21 credit units, at least 18-15 of which are at the 800-level

Rationale:

The FABS Postgraduate Diploma (PGD) program is designed for students wishing to advance their breadth and depth of knowledge at the graduate level in the food and bioproduct sciences. The PGD program consists entirely of course work and does not involve any lab-bench research; it is primarily intended for students seeking entrance into competitive job markets. Each student is advised by the PGD advisory committee to aid in class selection during their program and until they graduate. Our 30 CU PGD program was first established in 1976 but was inactive until recently due to very low enrolment. It was originally conceived as a two-term program. Having observed the performance of the three most-recent cohorts of PGD students after re-activation, it has become apparent that the student workload is too heavy for most of the students to effectively-manage over two regular terms, especially with some language barriers and cultural adjustments for international students. Most of our graduate classes have been developed for students in thesis-based programs, with these students rarely registering in more than 2 courses per term. These graduate classes are challenging, and involve considerable additional work (reports/assignments, group discussions/meetings, and presentations) to complement inclass theoretical training.

When our current PGD students are faced with five of such courses, the load has proven to be excessive. Taking four courses per term will be sufficiently engaging for our students as a full time academic experience. As well, because most of the PGD students are unfunded, the cost of having to extend a program is solely theirs to bear, and presents financial difficulties for them and their families. Our competitive advantage at the University of Saskatchewan currently includes lower tuition relative to our competitors, both in Canada and abroad. Almost all other post-graduate diploma programs offered

across Canada have course requirements of less than 30 CU. By keeping our program competitive in terms of CU requirement, tuition, and time in program, we will be able to attract more qualified students from across the globe, which will improve reputation of our program as well as our University, and more-

importantly improve student satisfaction. Post-Covid, we expect an increase in student enrolment, which is why it is important to implement the proposed change at this time.

Dentistry

Precision Oral and Systemic Health program

Revised PhD Requirements

Students must complete all or selected Ethics courses (from the list below) based on the recommendation of their Advisory Committee.

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

Non-direct entry students must complete a minimum of $\frac{10}{10}$ 6 credit units, while direct entry students must complete a minimum of $\frac{19}{15}$ credit units, including from any of the following courses offered by the College of Dentistry:

- DENT 803.3 Advanced Oral Biology
- o DENT 805.2 Critical thinking in Translational Research for Oral Health Science
- One of DENT 801.3 Organogenesis of Complex Systems from Development to Diseases OR
- DENT 802.3 Proteomics Oral Clinical Applications
- One of DENT 804.3 Teaching and Leadership Abilities for Academic Environment OR
- DENT 806.2 Discussion of Social Issues and Science

Based on the Advisory Committee recommendations POSH graduate students may also take any other graduate level course offered by the University of Saskatchewan graduate programs.

All students must maintain continuous registration in the following courses:

- DENT 990.0 Seminar
- DENT 996.0 Research

In addition to the course work requirements and completing a research project, all students must also complete the following:

- Qualifying examination (MS degree holders are exempted from the Qualifying examination)
- o Comprehensive examination
- Oral thesis defense

Rationale: We are requesting to lower the course credit unit requirements from 10 CU to 6 CU for Non-Direct Entry students and from 19CU to 15CU for Direct Entry students, to allow more time for undertaking a research project. This is in alignment with the current course credit unit requirements with various graduate programs at the College of Medicine (Health Sciences, APP, BMI, etc.) where 3-6 course credit units are required for fulfilling course requirements.

New Courses

Economics

ECON 815.3 Development Economics

This course provides both a general overview of topics in Development Economics during the first half of the class, and a special focus on Risk-Coping Mechanisms during the second half of the class. The topics covered for the first half include sustainable development, poverty and vulnerability, inequality, agricultural household models and impact assessment of development policies and programs. After that we will focus on how poor people in rural areas can cope with adverse risks. Hereby we will cover topics such as credit, insurance, migration and risk sharing agreements in social networks. We will look at economic theory, empirical applications, as well as related lab-in-the-field experiments.

Prerequisites ECON 800 Micro Economic Theory and ECON 808 Econometrics I; or permission of the instructor

Instructor: Sabine Liebenehm

Rationale: Development Economics is a major field of study in Economics. It combines aspects of micro and macro policy and empirics. Graduate students in our MA Econ and PhD APEC have requested that we offer such a course as this class prepares them for further studies and/or employment in the public and not-for-profit sectors. The department requites a new graduate class in development as our prior instructor Dr. C Echivarria has retired. The new course differs from the prior ECON 814 (now moribund) in that it focuses on risk-coping mechanism in developing communities. The proposed instructor Dr. Sabine Liebenehm is a new hire in the Department of Agricultural and Resource Economics (AREC) and has a 1/3 appointment in Economics. Her research is in this area and she is currently supervising graduate students with development-related research.

ECON 821.3 Energy Economics

Energy Economics aims at providing graduate students with the opportunity to study a wide range of issues dealing with energy consumption, energy production, and energy markets, and policies. It covers a variety of advanced theoretical and empirical topics related to energy demand and supply, the energy market structure, energy policies, macroeconomic and environmental impacts. The course reviews both conventional and alternative energy sources in the context of local, national, and global markets and uses advanced economic tools to analyze the current and evolving economic issues in energy sector. **Prerequisites:** ECON 800, Recommended: ECON 801, ECON804 or equivalent.

Instructor: Saeed Moshiri

Rationale: Energy Economics is one of the major field courses in Economics, but it is relatively new at the University of Saskatchewan. The undergraduate course in Energy Economics (ECON 376) was created by Dr Moshiri in 2010 and has been offered as a regular course since then. Dr. Moshiri created graduate 898 courses in Energy Economics beginning in 2011. Most of the graduate students taking the course have worked on an energy-related research topic in their MA research project. As the number of specialized graduate courses in Economics is limited, offering this course will give more options to graduate students for their elective courses and provide an opportunity to specialize in this interesting and growing field. The course will also be of interest in other disciplines such as Agricultural Economics and Bioresource Policy, Business and Economics, Public Policy, and Environmental Sustainability.

Educational Foundations

EDFT 843.3 Assessment as Pimosayta: Attending to experience in relational ways

Pimosayta, the Anishinabe concept for walking together in good ways shapes an understanding of assessment. Children/youths lived experiences continuously shape and reshape children's/youths' unfolding lives. Attention turns toward life curriculum making, and connections among curriculum making, identity making, and assessment making, as children/youth compose their lives in and outside of school.

Instructor: Shaun Murphy

Rationale: Assessment is a colonial term used to assess children and youth. In this course students will consider the need for relational and experiential experiences tied to learning that demonstrate understanding in diverse learning protocols. This ties into research I have been conducting related to this topic.

Edwards School of Business Management and Marketing

MGT 808.3 Qualitative Research Methods

This course provides an in-depth overview of qualitative research methods at the graduate level. We will take a hands-on approach to developing research skills in qualitative research methods widely used in the social sciences. This includes an understanding of methodological approaches, data collection and analysis, and knowledge mobilization techniques.

Instructor: Joelena Leader, Research Facilitator, ESB.

Related program requirements change: to amend the MSc Marketing program requirements as follows: • MGT 808.3 or 3 credit units in 800-level qualitative methods as approved by the department (for example ERES 845.3 Qualitative Research Methods)

Rationale: A requirement exists for MSc Marketing students to complete a course in qualitative methods. It is increasingly difficult to find a graduate course in qualitative methods that can accept our growing number of graduate students. As Edwards expands into a larger MSc Management program, we will require a qualitative methods course that can accommodate all Masters students at the Edwards School of Business.

Graham School of Professional Development

GE 990 Graduate Research Seminar

As required, graduate students in the Graham School of Professional Development will present at the SoPD Graduate Student Research Symposium once per academic year. This seminar course gives graduate students the opportunity to present their work.

Instructor: na

Rationale: The Graham School is building graduate programs and we need the 990 seminar series so that students can participate in their own scholarly development.

RCM 990 Graduate Research Seminar

As required, graduate students who study Rhetorical Communications in the Graham School of Professional Development will present at the SoPD Graduate Student Research Symposium once per academic year. This seminar course gives graduate students the opportunity to present their work. Instructor: na

Rationale: The Graham School is developing a graduate program and needs the 990 seminar series so that students can participate in their own scholarly development.

Kinesiology

KIN 826.3 Neuromuscular Physiology

The purpose of this course is to provide graduate students with an experience that includes reading and discussion of selected neuromuscular physiology topics and their application to research on neural adaptations to training and disuse. Focus will be on gaining knowledge and understanding the application of various neurophysiological measurement techniques in humans

Pre-Requisite: Graduate students enrolled in the course must have completed at least two undergraduate courses in exercise physiology (or equivalent) as part of their prior training. Students without these courses but a sufficient background in human physiology can take the course with permission from the instructor.

Instructor: Jon Farthing

Rationale: The Kinesiology graduate program lacks a specific elective course in neuromuscular physiology, despite having faculty working directly in the area. The course has been offered as KIN 898 several times serving students in neuromuscular physiology, exercise physiology, human movement neuroscience.

KIN 891.3 Analysis and interpretation of advanced bone imaging

This is a graduate level course designed for those interested in advanced bone imaging and health research in Kinesiology, Engineering and Health Sciences. The purpose is to provide graduate students with interactions and experiences that include: reading, interpretation, acquisition, analysis, critical evaluation, and discussion of bone imaged data obtained with high resolution peripheral computed tomography (HRpQCT). Students will have an opportunity to apply obtained skills when presenting and discussing findings from previous research related to bone health using HR-pQCT. Students will also apply these skills while analyzing and interpreting HR-pQCT image data previously collected in our lab. The course will introduce core concepts related to radiation safety, technical issues in data acquisition and analysis, and validity of bone micro-architectural assessment in bone health research relevant to Kinesiology and Health Sciences.

Prerequisite: Permission of the instructor

Instructor: Saija Kontulainen

Rationale: This course offers content integral for graduate student training, necessary for their learning, and included in the program of studies.

Nursing

NURS 8XX.3 Environmental Sustainability in Health Care

Focuses on an introduction to planetary health and environmental sustainability practices for the health care professional. Emphasis will be on the sustainable development goals and interprofessional action with an integration of topics such as systems thinking, movement building, health equity and social justice. More specialized topics will include interconnection with nature, local conditions (socioeconomic, cultural, and environmental), and sustainability actions in health care settings.

Note: This course is hybrid to NURS 4XX Environmental Sustainability in Health. Students cannot receive credit for both courses.

Instructor: Wanda Martin

Rationale: The World Health Organization has called climate change the greatest challenge of the 21st Century. While it is a global challenge, Canadians will be at risk from increased heat, allergens and asthma, displacement from wildfire and floods, increases in infectious diseases, and decreases in food availability. Public health systems and services will be pressed for supporting communities in the rapid changes as a result of global warming. Developing community resilience will be essential in an unpredictable future. Strong public health systems are necessary to work with communities but working together to take action is a role for all health professionals. Interdisciplinary work is important when dealing with the broad range of challenges ahead.

Public Health

PUBH 877.3 Leadership in Public Health

This course introduces students to leadership in public health. According to the Public Health Agency of Canada (PHAC) guidelines for Masters of Public Health (MPH) programs in Canada (PHAC, 2007), leadership is one of the seven (7) domains/categories of competencies in MPH programs. In fact, leadership competency statements appear in at least 5 of the 7 domains of MPH competencies (Community Health Nurses of Canada [CHNC], 2015). The course has three (3) modules: In module 1, students will be introduced to basic knowledge on leadership (definitions, theories, styles). Subsequently, unique aspects of leadership in public health that distinguishes it from generic/business leadership will be explored. In module 2, students will be introduced to LEADS (Lead self, Engage others, Achieve results, Develop coalitions, Systems transformation). It was recently established that most of the competencies in

public health leadership mapped well with "LEADS in a caring environment" leadership framework (CHNC, 2015). LEADS is a well-established framework for leadership development in Canada, and "embodies key skills, behaviors, abilities and knowledge required to lead in all sectors of the economy and types of organizations" (LEADScanada.ca). Finally, in module 3, the leadership competencies specific for public health practice in Canada will be addressed. In addition, the selected leadership skills that are important in public health leadership will be explored in greater detail.

Prerequisites There are no pre-course requirements for this course. Enrollment limit is set at 20, and consequently priority will be given to students enrolled in SPH programs. Therefore, Departmental consent is required.

Instructor: George Mutwiri

Rationale: Leadership is one of the seven (7) domains of public health competencies as outlined in the Guidelines for Masters of Public Health (MPH) Programs in Canada by Public Health Agency of Canada in 2007. However, no course(s) on leadership are offered in our program Furthermore, a 2014 accreditation report of our MPH program recommended that we develop a course on leadership specif,c for public health professionals. This course has been developed to meet these needs

Psychiatry

PSIA 870.6 Selected Topics in Contemporary Psychiatry

The Mental Health Foundations course provides a comprehensive theoretical knowledge in the classification, etiology, epidemiology, phenomenology, diagnostic criteria and treatment principles for common mental disorders. It also provides a unique learning opportunity for self-reflection on the implications of stigma and the impact of mental illness at individual, family and societal levels. **Prerequisites:** Graduate students enrolled in a MSc or PhD program in Health Sciences can register in this course if their research projects are supervised or co-supervised by faculty from the Department of Psychiatry. Students wishing to enroll in this course are required to have completed a minimum of two undergraduate courses in relevant disciplines or MSc in allied clinical (or health) and biomedical disciplines (e.g., at least 6 undergraduate course credits in Psychology/ Neuropsychology, Physiology and Pharmacology, Biochemistry, Cell physiology Pharmacology Science, Nursing, Health Sciences, Statistics, and/or Neuroscience). Approval from the course instructor, his/her/their supervisor, and the Graduate Chair (Health Sciences, College of Medicine) is also required. **Instructor:** Evyn Peters and Camelia G. Adams

PSIA 875.3 Selected Topics in Contemporary Psychiatry

The purpose of this course is to enhance theoretical knowledge of various psychiatric disorders through the comprehensive review of published research on complex aspects of the selected topic. **Prerequisites:** PSIA 870.6 or equivalent; completion of MD; enrolment in a MSc or PhD program in Health Sciences with a research project supervised or co-supervised by faculty from the Department of Psychiatry; Approval from the course instructor, his/her/their supervisor, and the Graduate Chair (Health Sciences, College of Medicine) is also required.

Instructor: Evyn Peters and Camelia G. Adams

Rationale for both courses:

Psychiatric disorders affect every community worldwide. Access to mental health and addiction services and expanding access to community-based mental health services is one of the priorities of federal and provincial governments in Canada. Psychiatrists and other mental health professionals work together to deliver care that is evidence-informed and responsive to the unique needs of each patient. Advancement in education and research is vital to the success of contemporary health care and necessary for the ongoing development of psychiatry. Although the Health Science program at the College of Medicine, University of Saskatchewan collaborates with all clinical departments as a unit, it doesn't offer any specialized

graduate stream or program of courses in Mental Health. Therefore this new course under a Mental Health Stream within the Health Sciences Program, College of Medicine, is critical to create knowledge and optimize development of scholarly skills in psychiatry. Additionally, the University of Saskatchewan positions itself as the university the world needs through "courageous curiosity" and "boundless collaboration". This new course fulfills both goals by creating knowledge and enriching disciplines to tackle multiple aspects of clinical research in mental health. "Health Sciences" is also at the forefront of the College of Medicine vision for "being leaders in improving the health and well-being of the people of Saskatchewan and the world." This graduate course under the Mental Health Stream - Health Sciences also aligns with the strategic plan and research teams of the College and Department of Psychiatry on "health living from conception to aging" and enhancing "the well-being of persons with psychiatric disorders, now and in the future through integration of scholarly activities, research, teaching and optimal clinical care." Additionally, the University of Saskatchewan belongs to the U15-Group of Canadian Research Universities and this concentration will advance research activities in the Department of Psychiatry. Increased research activity through this graduate course within the Health Sciences program is expected to have a positive impact on the college and university ranking and reputation. In summary, the proposed course will be unique and attractive for students and medical residents from the prairie provinces and across Canada, offering high caliber training in clinical research targeting mental health. This is a clinical and research priority area for the province of Saskatchewan that will benefit further from academic expertise provided by this course.

Soil Science

SLSC 825.3 Field Studies and Research Design of Saskatchewan Soil Landscapes

Provides students with in-depth training in practical aspects of soil formation, classification, landform recognition, soil management impacts on profile development and research design in soil science. Upon completion, students will have a practical understanding of Saskatchewan soils as they occur in the field and relevant field research design in soil science.

Note: Students with credit for SLSC 833.2 and 850.1 cannot receive credit for SLSC 825.3

Instructor: Angela Bedard-Haughn, Jeff Schoenau, Diane Knight

Course deletion: SLSC 833.2 [note that SLSC 850.1 will not be deleted at this time]

Rationale: This course is a redesign and combination of two existing courses: SLSC 850.1 Experimental Design in Soil Science, and SLSC 833.2 Field Studies of Saskatchewan Soils

The new course removes modular required courses from the MSc program and instead reaches modified learning objectives through this new 3 credit unit course.

SLSC 826.3 Physical, Chemical, and Biological Characterization of Soils

This course is intended to provide students with training in laboratory analysis of selected physical, chemical, and biological properties of soils, with emphasis on those analyses used in basic site characterization and soil health assessments. Topics to be covered include sample handling and preparation, good laboratory practices, appropriate QA/QC for the methods used, and interpretation of the data resulting from the various analyses. Laboratory techniques will be covered through a series of modules. The samples to be analyzed include soils collected in SLSC 825.3 – Field Studies and Research Design of Saskatchewan Soil Landscapes. The course will culminate in a final report that synthesizes all of the results and interprets them in the context of the physical environment from which they were collected.

Prerequisites: Students must complete SLSC 825.3 – Field Studies and Research Design of Saskatchewan Soil Landscapes prior to registering in SLSC 826.3.

Note: Students with credit for SLSC 835.2 cannot receive credit for SLSC 826.3

Course deletion: SLSC 835.2

Instructor: R. Farrell (lead) Jeff Schoenau, Bobbi Helgason, Renato deFreitas, Marc S. Arnaud

Rationale: This course is currently offered as a 2 credit unit course but the workload exceeds that of a 2 cu course and thus we propose to increase it to 3 cu. This change is in response to student feedback and recommendations from a recent academic program review. These changes have been discussed at the Departmental Graduate Committee and have been agreed to by Soil Science faculty.

Veterinary Small Animal Clinical Sciences

VSAC 836.3 Ultrasound Physics and Basic Physics in Veterinary Diagnostic Imaging

This course will allow resident graduate students to gain knowledge in ultrasound and x-ray physics. 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 the canine, feline, equine and bovine patients. Practical application will be emphasized. Exotic species will be discussed but to a lesser extent.

Prerequisite: Permission of the instructor (DVM degree)

Instructor: Sally Sukut and Brad Cotter. Both are dilpomates of the American College of Veterinary Radiology at the WCVM.

Rationale: This course will allow resident graduate students to gain knowledge of ultrasound and x-ray physics. The courses 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 the canine, feline, equine and bovine patients. Practical application will be emphasized. Exotic species will be discussed but to a lesser extent.

Course deletions:

In addition to the course deletions listed above, units in CGPS are intending to delete the following:

Applied Microbiology and Food Science

FDSC 842.3 Advanced Meat Science

Biological Engineering

BLE 807.3 Advanced Measurements BLE 827.3 Geomatics in Water Resources BLE 830.3 Design of Farm Irrigation Systems BLE 853.3 Fiber Processing and Biocomposites

Master of Business Administration MBA 883.3 International Study Tour

Course revisions and items for information:

The following course revisions and items for information have been approved by CGPS:

Agricultural Economics

Course description

AREC 837.3 Non-market Valuation for Natural Resources and the Environment

Will emphasize the development and illustration of concepts, issues, and analytical techniques for nonmarket valuation. Students will examine competing theories in resource and environmental economics and learn to apply analytic models. Students will also need to apply non market valuation techniques and enhance understanding of natural resource policy implications. Theoretical and empirical analysis of non-market valuation methods. Topics include welfare economics, demand estimation, benefit-cost analysis, survey design and administration, preference elicitation techniques, choice modelling, health valuation, and valuation of ecosystem services. Emphasis is placed on linking conceptual frameworks with best practice methods for empirical implementation.

Restriction: Only open to students in the College of Graduate and Postdoctoral Studies.

Note: Students with credit for BPBE 837 will not receive credit for this course.

Course notes

AREC 820.3 Applied Microeconomic Theory

Students with credit for AGEC 820 or BPBE 820 may not take this course for credit.

AREC 832.3 Rural Development

Students with credit for AGEC 832 or BPBE 832 may not take this course for credit.

AREC 845.3 Transportation Economics and Regulatory Policy

Students with credit for AGEC 845 or BPBE 845 may not take this course for credit.

AREC 851.3 Agricultural Policy

Students with credit for AGEC 851 or BPBE 851 may not take this course for credit.

AREC 860.3 Econometrics for Agricultural Economists I

Students with credit for AGEC 860 or ECON 808 or BPBE 860 may not take this course for credit.

AREC 861.3 Econometrics For Agricultural Economists II

Students with credit for AGEC 861 or ECON 809 or BPBE 861 may not take this course for credit.

AREC 862.3 Advanced Econometrics

Students with credit for AGEC 862 or BPBE 862 may not take this course for credit.

AREC 890.3 Research Procedures in Agricultural Economics

Note: Students with credit for AGEC 890 or BPBE 890 may not take this course for credit.

AREC 990.0 Seminar

Students with credit for AGEC 990 or BPBE 990 may not take this course for credit.

AREC 992.0 Project

Students with credit for AGEC 992 or BPBE 992 may not take this course for credit.

AREC 994.Research

Students with credit for AGEC 994 or BPBE 994 may not take this course for credit.

AREC 996 Research

Students with credit for AGEC 996 or BPBE 996 may not take this course for credit.

Anthropology

Course description

ANTH 990.0 Seminar

During residence, all graduate students will register in and attend ANTH 990 and will make at least-two one presentations based on their research. Graduate students in the Anthropology program are required to attend and participate; interested undergraduate students may also be invited.

Restriction: Enrolment in the graduate program in Anthropology or permission of the Graduate Chair or designate.

Art and Art History

Course descriptions ART 842.3 Sculpture B

Continuing from ART 842, research and continued identification of the concepts, materials, and means of sculpture and related work will be explored. Methods of construction (casting, carving, building, assembling, etc.) and presentation, both traditional and experimental approaches will be encouraged. This includes wide exploration of materials and combinations such as metals, wood, fabric, cement, and found

objects. Ambitious and critical synthesis of materials, processes and concepts is expected at the graduate level.

Continuing from ART 841 (or with permission of the supervisor and instructor), research and continued identification of the concepts, materials, and means of sculpture and related work will be explored. Methods of construction (casting, carving, building, assembling, etc.) and presentation, both traditional and experimental approaches will be encouraged. This includes wide exploration of materials and combinations such as metals, wood, fabric, cement, and found objects. Ambitious and critical synthesis of materials, processes and concepts is expected at the graduate level.

Note: Costs in addition to tuition may apply to this course.

ART 872.3 Painting B

Following up on ART 871, continual identification of concepts and methods as they relate to the expression, structure, media, and skills of painting. Students may experiment with any or all painting media and work from a choice of subject matter. Emphasis is on students' artistic growth and development.

Continuing from ART 871 (or with permission of the supervisor and instructor), concepts and methods as they relate to the expression, structure, media, and skills of painting will be explored. Students may experiment with any or all painting media and work from a choice of subject matter. Emphasis is on students' artistic growth and development.

ART 882.3 Drawing

Continued research and exploration of the concepts and methods of drawing as they relate to visual perception and expression, compositional design and graphic media, and skills. Use of diverse media coupled with invented and observed form is expected.

Continuing from ART 881(or with permission of the supervisor and instructor), research and exploration of the concepts and methods of drawing as they relate to visual perception and expression, compositional design and graphic media, and skills will be explored. Use of diverse media coupled with invented and observed form is expected

ART 990. Seminar

All graduate students are required to attend biweekly regularly scheduled departmental seminars during the first two years of their program. Students will present their exhibition research and participate in seminar discussions. Departmental faculty and visiting lecturers also contribute to the program.

Biological Engineering

Course revisions

BLE 811.3 Modeling of Food and Bioprocesses

Deals with mathematical/computer simulation of food and bioprocesses associated with fluid flow, heat and mass transfer, internal heat generation due to biological activity and electromagnetic field treatment, and quality kinetics. Important optimization techniques will be introduced to design food processes with better energy efficiency/productivity and less quality degradation.

Note: Students with credit for ABE 811 will not receive credit for this course.

Chemical Engineering

Course description

CHE 990. Seminar

Papers and discussions on recent developments in chemical engineering. Graduate students are required to attend these meetings for the duration of their program. Every graduate student is expected to present a seminar related to their research or project at some time before they receive the graduate degree.

MSc/MEng students are required to present one time while PhD students are required to present twice at the department seminar.

Course note

CHE 882.3 Design of Industrial Waste Treatment Systems

Notes: Students with credit for CHE 454.3 will not receive credit for this course.

Computer Science

Revised perquisite

CMPT 830.3 Bioinformatics and Computational Biology

Provides an in-depth algorithms-based introduction to major concepts and techniques in bioinformatics. Topics include algorithms for structure prediction and similarity, sequence similarity and alignment, metabolic and regulatory pathways, sequence assembly, comparative genomics, expression analysis, database searching, artificial life and biological computation.

Prere quisite: A previous BINF class, or at least 6 credit units of previous course work in each of computer science, statistics and the life sciences. Open to students in computer science, life sciences, and natural sciences, but subject to permission of the instructor.

Course description

CMPT 857.3 Readings in Bioinformatics

Reviews and discusses recent advances and issues in Bioinformatics through paper presentation by students. Topics will range from computational biology to artificial life and biological computation. Students will be evaluated based on their presentations and participation, as well as a small project. Topics will range from computational biology and genomics to artificial life and biological computation. Students will be evaluated based on their presentations, literature reviews, and participation, as well as an optional small project.

Prerequisite: Open to students in computer science, life sciences, and natural sciences, but subject to permission of the instructors.

Dentistry

Course title change DENT 804.3 Teaching and Leadership Abilities for Academic Environment Dental Education

Educational Foundations

Course revisions

EFDT 818.3 Workplace Learning

Provides a hands-on workplace learning experience in adult and continuing education an educational field. The learning experience is monitored throughout by a faculty advisor and a field-based supervisor. Placements are made within the department or with organizations that best suit students' academic interests and career aspirations.

Restriction: Admission to graduate program in Educational Foundations.

Note: Hours will vary depending on workplace practicum placement. Cannot receive credit for ECNT 892 and EFDT 818.

EFDT 842.3 — 1/2(3LS) History of Indigenous Education in Canada

A review and examination of colonial socio-historical policy and practice that informed educational foundations of Indigenous people in Canada, this course explores the shift from residential schools, integration, and Indian Control of Indian Education to reconciliation.

Note(s): Cannot receive credit for EIND 810 and EFDT 842.

EFDT 843.3 Decolonizing Aboriginal Education

Intended to address colonization and imperialism among Aboriginal peoples, focusing specifically on the role education has played in achieving cognitive imperialism, critique the tenets of cognitive imperialism in English language, and education policy, politics, and practice, and evaluate international options for restoring Aboriginal-Indigenous communities.

Note(s): Cannot receive credit for EIND 851 and EFDT 843.

EFDT 846.3 Aboriginal Indigenous Languages and Linguistic Diversity in Education

This seminar explores the state of Indigenous languages, the interrelated threats to linguistic diversity, and its foreseeable consequences for Indigenous knowledge, heritage, identity, human rights, and social justice. It critically examines post-colonial educational programming aimed at recovering, sustaining, and developing Indigenous languages.

Note(s): Cannot receive credit for EIND 871 and EFDT 846.

EFDT 857.3 — (3 S L-2P) Critical Pedagogy Neoliberalism and the Environment

In this course, students will investigate current threats to the natural world, various sociopolitical positions and frames used to justify individual and human wellbeing over collective, environmental and non human wellbeing, and relevant socio political pedagogies to address the hegemonic, pacification discourses of neoliberalism. especially focusing on the Climate Crisis and Indigenous Rights. The neoliberal push to justify individual and human wellbeing over collective, environmental and non-human wellbeing, towards deregulating and privatizing the commons, will be addressed. The three two major concepts in this course, eritical pedagogy, neoliberalism and environmental consciousness, will be connected through readings and film. The role of the corporate media and prominent individual journalists around environmental consciousness will also be explored.

EFDT 884.3 — (38) Life History as Education

Examines life history research and life history writing from feminist, critical race theory, critical pedagogy, and cultural studies perspectives in relation to educational inquiry. Through the study of memoir, autobiography, auto-ethnography, and contemporary fiction, the construction of identities in diverse social and political contexts is investigated.

Note: Students with credit for EFDT 898: Special Topics in Life History of Education, may not take this course for credit. Offered online.

EFDT 843.3 Decolonizing Aboriginal Education

Intended to address colonization and imperialism among Aboriginal peoples, focusing specifically on the role education has played in achieving cognitive imperialism, critique the tenets of cognitive imperialism in English language, and education policy, politics, and practice, and evaluate international options for restoring Aboriginal Indigenous communities.

Note(s): Cannot receive credit for EIND 851 and EFDT 843.

Edwards School of Business

Master of Business Administration

Course revision:

MBA 992.3 Edwards MBA Capstone Project Venture Management

The Edwards MBA capstone project allows individuals or a team of students to study a cross-disciplinary issue, problem, or opportunity of operational, organizational, or strategic significance. The students will

apply and integrate the knowledge and skills acquired throughout the program to determine the best course of action for the organization and present their findings in a final report. Students can also participate in an entrepreneurial, team-based venture management project that takes them through the process of developing/refining an idea for a New Venture, researching, and analyzing that opportunity, writing a detailed and compelling Business Plan, and creating/presenting a "Business Plan Pitch" to an external review panel.

Designed to assist students in developing and understanding the skills and tools required in preparing and presenting a complete and professional business plan for a business entity. All aspects of the business plan are discussed and integrated, including operations, human resources, marketing and finance. MBA students are expected to combine knowledge and skills to produce and present a professional business plan.

Prerequisite(s) or Corequisite(s): MBA 885.

Note: MBA 992 is to be taken in the final year of a student's program. **Departmental permission is required for each registration.**

Electrical and Computer Engineering

Course revision:

EE 868.3 Digital Techniques for Power System Measurements and Protection Advanced Power System Relaying & Control

Interfacing electronic devices with power systems; electronic transducers, auxiliary transformers, antialiasing filters, analog to digital converters, sample and hold devices and computing devices. Numerical techniques for converting quantized data to phasors and using the phasors for derived measurements, such as, power flow, apparent impedance and frequency.

Relaying practices, numerical relaying, protective relaying algorithms, adaptive relaying, high-speed digital relaying, system relaying and control, special protection schemes, remedial action schemes, transient stability protection, controlled islanding, relaying applications of traveling waves, wide area measurement system based protection, microgrid protection, artificial intelligence applications.

History

Course revisions

HIST 821.3 Studies in Early Modern European History

This course provides doctoral students with an overview of the major approaches, methodologies and historiographical debates in the field of early modern European history. The focus is on key political, social and cultural developments in Western Europe during the period 1450 to 1800, including the Renaissance and Reformation, the advent of European empires in the Western Hemisphere, and changing material and popular cultures.

Note: Students may take this course more than once for credit, provided the topic covered in each offering differs substantially.

HIST 850.6 The mes in Canadian History

This course provides doctoral students who are completing a major field in Canadian History with a comprehensive overview of the major themes, methodologies, and historiographical debates in Canadian history. Themes may include Indigenous history, Colonialism, Fur Trade, Women, Black History, Warfare, Regional case studies and Nationalism among others.

Note: Students may take this course more than once for credit, provided the topic covered in each offering differs substantially.

HIST 859.3 Studies in Canadian History

This course provides doctoral students who are completing a minor field in Canadian History with an overview of the major approaches, methodologies, and historiographical debates in the field of Canadian History.

Note: Students may take this course more than once for credit, provided the topic covered in each offering differs substantially.

HIST 860.6 The mes in Western Canadian History

This course provides doctoral students who are completing a major field in Western Canadian History with a comprehensive overview of the themes, methodological approaches, and historiographical debates which have shaped scholars' understanding of the history of British Columbia, Alberta, Saskatchewan, and Manitoba from the seventeenth century to present day.

Note: Students may take this course more than once for credit, provided the topic covered in each offering differs substantially. Students must consult the Department to ensure that the topics covered are different.

HIST 870.6 The mes in the Americas

This course provides doctoral students who are completing a major field in the history of the Americas (U.S.A., Canada, Latin America, South America) with a comprehensive overview of major themes, methodologies, and historiographical debates. The course may have regional, comparative and/or thematic focus.

Note: Students may take this course twice for credit, provided the topic covered in each offering differs substantially.

HIST 871.3 Studies in the Americas

This course provides doctoral students who are completing a minor field in the history of the Americas (U.S.A., Canada, Latin America, South America) with a comprehensive overview of major themes, methodologies and historiographical debates connected to the history of the Americas. The course may have regional, comparative and/or thematic focus.

Note: Students may take this course more than once for credit, provided the topic covered in each offering differs substantially.

HIST 881.3 Historiography

Selected studies in the development of historical ideas and methodologies

This core course of the MA program offers selected studies in the development of historical ideas and methodologies and prepares students to write the historiographical portion of their MA thesis.

.Note: Students may take this course more than once for credit, provided the topic covered in each offering differs substantially. Students must consult the Department to ensure that the topics covered are different.

HIST 883.3 Methods in Historical Research

This course is intended to help graduate students learn how to be a professional historian, practice writing proposals and think about the ways in which histories are crafted. We will consider shared professional standards, discuss different sources and approaches, and reflect on how one's approach shapes history writing.

This core course of the MA program introduces students to the historian's craft. It considers various methodologies that historians employ in history writing and in approaching different kinds of sources; it reflects on how approaches and methodologies shape history writing. It also helps students learn how to be a professional historian.

HIST 990. Seminar

Students and faculty will make presentations concerning their current research. All candidates for a graduate degree must make one presentation. Attendance is required throughout the graduate program. Students will make presentations concerning their current research. All candidates for a graduate degree must make one presentation. Attendance is required throughout the graduate program.

Johnson Shoyama Graduate School

Course revisions

JSGS 803.3 Quantitative Methods

Provides students with the statistical concepts and techniques required for conducting research and critically evaluating empirical studies. Topics include statistical inference, sampling theory, and data and regression analysis as applied to problems in public policy.

Prerequisite(s): None-Students must have successfully completed an undergraduate course in statistics. **Restriction(s):** Admission into the Master of Public Administration (M.P.A.) program, Master of Public Policy (M.P.P.) program, Ph.D. program, or by permission of the instructor.

Note(s): Students with credit for PUBP 811 will not receive credit for this course.

JSGS 849.3 Foundations in Social Economy and Public Policy

The social economy includes non-profit, community-based organizations, and co-operatives and social enterprises. This course focuses on looks at how these organizations shape and are shaped by policies at how these organizations interplay with the public policies of different levels of government. Using case studies, students will examine administrative public policy, such as how the social economy is funded and how it is evaluated and held accountable, as well as substantive public policy, including community capacity building and partnership development. The course also includes a field trip to learn about local social economy organizations at work and guest lecturers, including both researchers and practitioners. as well as pressing issues facing the sector. Students will examine the origins and evolution of the social economy and the ways that social economy organizations are funded evaluated and held accountable by stakeholders. Community capacity building ans partnership development are also addressed. This course includes interviews and guest lectures with leaders in the sector.

Restriction(s): Admission into the Master of Public Administration (M.P.A.) program, Master of Public Policy (M.P.P.) program, Ph.D. program, or by permission of the instructor. **Note:** Students with credit for PUBP 849 will not receive credit for this course.

JSGS 863.3 Aboriginal Indigenous Peoples and Public Policy

Delete Note: Students with credit for PUBP 812 will not receive credit for this course

Linguistics

Course revisions

LING 803.3 Advanced Conversation and Discourse Analysis

This course will introduce graduate students to advanced concepts in conversation and discourse analysis. It will deal with concepts in pragmatics, such as speech acts, felicity conditions and the cooperative principle in conversation. The focus will then shift to discourse analysis in which language use is examined within its sociocultural context. Students will be introduced to current research paradigms such as critical discourse analysis and sociocultural theory. Finally, the implications of research findings on language teaching within a communicative framework will be discussed.

This course will introduce graduate students to advanced concepts in discourse analysis. The course will outline the role of discourse in social and ideological constructs. It will cover multiple theoretical approaches to discourse as well as practical tools of discourse analysis with examples from different disciplines. The subject matter will also include Conversation Analysis as well as some concepts in

pragmatics, such as speech acts, and politeness theory. Students will be introduced to current research paradigms including Critical Discourse analysis (CDA) and Critical Discourse Studies (CDS). **Prerequisite(s):** Registration in a Graduate program.

LING 804.3 Research Methods in Linguistics

Add Note: Students may take this course more than once for credit, provided the topic covered in each offering differs substantially. Students must consult the Department to ensure that the topics covered are different.

LING 816.3 Topics in the Grammar of Non-Indo European Languages

Restriction: Restricted to students enrolled Registration in a graduate program in the Department of Linguistics

Mechanical Engineering

Course revisions

ME 811.3 Mechanical Deformation of Metals and Plastics

The course covers topics intended to introduce various aspects of composite materials. Design and mechanical behaviour of composite materials will be introduced. Topics will include reinforcement and matrix materials, manufacturing methods, composite applications, analysis of composite systems using micromechanics, orthotropic lamina theory, macromechanics and failure analysis of laminates. Project on eurrnt research topics and selected applications. Concepts of metal forming and plastics processing. Mechanisms of plastic deformation at ambient and elevated temperatures, mechanical properties, residual stresses, effects of annealing. Shaping processes for plastics (extrusion, injection molding, blow molding, thermoforming). Mechanical forming processes for metals (forging; rolling; extrusion; cutting, drawing, bending, stretch forming, superplastic forming). Powder metallurgy, ceramic processing and rapid prototyping. Project on current research topics and selected applications.

ME 855.3 Design Optimization and Optimal Control

Prerequisite(s): ME 323 or equivalent. and 450.

ME 868.3 Advanced Topics in Fire Protection Engineering

Prerequisite(s): ME 327 or equivalent. an undergraduate heat transfer course.

ME 872.3 Fundamentals of Fluid Dynamics

A study of the fundamental principles of fluid dynamics as applied to a continuum. Development of the constitutive equations for a Newtonian fluid and the Navier-Stokes equations. An introduction to turbulences and the boundary layer equations. Both analytical and numerical solutions for specific flow problems will be considered. Student interests may determine some problem examples. **Prerequisite(s):** ME 335 or equivalent.

ME 873.3 Advanced Topics in Fluid Dynamics

Represents a further study of viscous, incompressible flow focusing on turbulence. Hydrodynamic stability and the transition to turbulent flow are first considered, followed by a study of fully developed turbulence. Of specific interest is the development of turbulence models for prediction methods. A primary application is near-wall turbulent flow.

Prerequisite(s): ME 335 or equivalent.

ME 879.3 Numerical Fluid Dynamics and Heat Transfer

An introduction to numerical methods for solving the transport equations for flow of a viscous, incompressible fluid, including convective heat transfer. The finite volume methodology is adopted. Students will implement numerical solutions for simple problems involving diffusion and convection. Additional topics include pressure solvers, turbulence modeling and Large Eddy Simulation. **Prerequisite(s):** ME 872 or equivalent

ME 897.3 Mechanics and Control of Robots

The course objective is to understand the mechanics and control of mechanical manipulators and mobile robots. This course will cover topics such as kinematics and dynamics of manipulators and mobile robots, trajectory and path planning, control (computed-torque control, neural network), and force control of robots and manipulators.

Prerequisite(s): ME 431, or ME 862.

ME 990.N/A — 1/2/Spring & Summer Seminar

A seminar is held periodically throughout the regular session. The current research and literature is reviewed and discussed.

Research and professional skills seminars are held periodically throughout the year.

Related change in the MEng MSc and PhD programs: "Students must maintain continuous registration in the 990 and [992] / [994] / [996] courses".

Music

Course revision

MUS 833.3 Advanced Seminar in Choral Literature and Materials

A detailed examination of standard and atypical choral repertoire for mixed, male, and treble choruses. Graduate students will be expected to explore the compositions in a thorough scholarly manner as demonstrated through course work and a substantial research paper.

This course examines in detail choral repertoire for multiple and varied voiced choirs and explores choral music making in a variety of contexts from around the world. Graduate students will be expected to explore the compositions in a thorough scholarly manner as demonstrated through course work and a substantial research paper.

Nursing

Course revision NURS 875.3 Transition to Advanced Nursing Practice Prerequisite(s): NURS 879, NURS 886, NURS 885, or permission of the Director of the NP program

NURS 879.3 Advanced Diagnostic Reasoning

Prerequisite(s): NURS 870.3 884.3

NURS 880.3 Practicum I Advanced Nursing Practice in Primary Health Care

Delete Note: Students with credit for NURS 887.3 or NURS 877.6 will not receive credit for this course. The current course was labeled NURS 887.3 until 201205 and was labeled NURS 877.6 until 201309.

NURS 881.3 Pathophysiology- Pharmacotherapy for Advanced Nursing Practice I Prerequisite: Admission to the Nurse Practitioner graduate program.

NURS 883.3 Theory for Advanced Practice Nursing Roles and Primary Health Care

Prerequisite: Admission to the Nurse Practitioner graduate program.

NURS 884.3 Advanced Health Assessment

This clinical practicum provides students the opportunity to demonstrate clinical knowledge and diagnostic skills with clients across the life span. Scholarly activities in this clinical practicum are designed so that the student gain increasing experience in integration of theory, research and clinical knowledge related to multidisciplinary health services and systems.

Prerequisite(s): Admission to the Nurse Practitioner graduate program.

Note: Students with credit for NURS 870.6 will not receive credit for this course. This course was labeled NURS 870.6 from 201305 to 201705.

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.

Pre or Co-requisites: Admission to the Master of Nursing Primary Health Care Nurse Practitioner (MN-NP) or Post Graduate Nurse Practitioner Certificate (PGNPC) program and College of Graduate and Postdoctoral Studies (GSR 960).

Public Health

Course revisions

PUBH 810.3 Environmental Public Health I

Delete Note: Students who received credit for AGMD 801 in Spring and Summer of 2012 may not take this course for credit. Students taking this course in September of 2012 and beyond may receive credit for both AGMD 801 and PUBH 810.

Veterinary Pathology

Course revision

VTPA 835.3 Graduate Student General Pathology

Graduate Student General Pathology is a course designed to enrich veterinarian foundational knowledge of for veterinary graduate students of general pathology mechanisms, not only for the enhancement of their own career preparation, but also to specifically prepare them for Phase I of the American College of Veterinary Pathologists Board certification exam.

Prerequisite: Enrolment in a graduate program in Veterinary Pathology

Item for information

The following course change was approved in the November 2021 University Course Challenge, The revised program description regarding this course should also have been included at that time:

Master of International Public Management and Administration (M.I.P.M.A.) - Project-based

This program will provide an international learning experience for students, bring international students to the partner universities, increase the global impact of the partners, and serve the broader international community through the learning outcomes of the students.

Admission Requirements

 \cdot a four-year honours degree, or equivalent, from a recognized college or university in an academic discipline relevant to the proposed field of study

 \cdot a cumulative weighted average of at least 75% (U of S grade system equivalent) in the last two years of study (i.e. 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 is required with a minimum score of 20 in each area, or a minimum overall IELTS score of 6.5 with a minimum score of 6.0 in each area, or another approved test as outlined in the College of Graduate and Postdoctoral Studies Academic Policies.

Degree Requirements

Students must complete a minimum of 24 credit units of coursework as follows:

Core Courses · GPS 960.0 Introduction to Ethics and Integrity · GPS 961.0 Ethics and Integrity in Human Research · JSGS 990.0 Public Policy Seminar · JSGS 801.3 Governance and Administration · JSGS 808.3 Ethical Leadership and Democracy in Public Service

- · PPG6605 Public Administration and Management in Asia (EdUHK requirement or 3 cu equivalent)
- · PPG6003 Strategic Communication (EdUHK requirement or 3 cu equivalent)
- · JSGS 992.6 Capstone Project
- · PPG 993.3 Capstone Placement Project Phase I
- · JSGS 992.3 Capstone Placement Project Phase II

Restricted Electives · JSGS 882.3 Strategic Management in the Public Sector OR JSGS 807.3 Statistics for Public Managers

· PPG6006 Project Appraisal and Impact Analysis OR PPG6011 Human Resource Management (EdUHK requirement or 3 cu equivalent)