Academic Programs Committee of Council

University Course Challenge

Scheduled posting: December, 2018

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 Engineering
College of Pharmacy and Nutrition

Approval: Date of circulation: December 13, 2018
Date of effective approval if no challenge received: January 2, 2019

Next scheduled posting:

The next scheduled posting will be January 17, 2019, with a submission deadline of January 15, 2019. Urgent items can be posted on request.

Please direct challenges to both of the following: seanine.warrington@usask.ca in Registrarial Services and amanda.storey@usask.ca in the Office of the University Secretary.
The following curricular revisions were approved by the College of Agriculture & Bioresources Undergraduate Affairs Committee on November 22, 2018 and are being submitted to University Course Challenge for approval:

**Change to Course Prerequisites**

**AREC 251.3 — 1(3L)**  
Introduction to Agricultural Policy

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

**Prerequisite(s):** ECON 111 and successful completion of 30 credit units of university-level courses or permission of the instructor.

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

**Formerly:** Formerly BPBE 251.

**Rationale:** This change is requested to ensure that students have the necessary academic preparation to succeed in this course.

**AREC 420.3 — 1(3L-2P)**  
Operations Management for Agriculture

This course develops the theory and practice of operational and supply chain management techniques applied to agriculture. Techniques and procedures are developed that can be used by managers or professional consultants to help improve operational efficiency in modern agriculture. Topics may vary, but will typically include numerical optimization and productivity measures, the theory of supply chain logistics (including transportation and inventory analysis), the normative theory of fair division, regional agricultural modelling and the theory of behavioral economics in support of management and business decisions.

**Formerly:** BPBE 420

**Prerequisite(s):** AREC 322 or COMM 203, AREC 315 and AREC 322 or permission of the instructor (AREC 361 highly recommended).

**Note:** Students with credit for AGEC 420 or BPBE 420 may not take this course for credit.

**Rationale:** This change is requested to ensure that students have the necessary academic preparation to succeed in this course.

**AREC 428.3 — 1(3L)**  
Case Studies in Agribusiness Management

This course uses case studies to apply theories learned during previous courses to real-world decisions made within the agribusiness environment. Students will use critical thinking while they work
individually and in teams to identify problems and develop solutions to issues faced by agribusiness managers. Cases will cover a variety of agribusiness topics including finance, management, marketing, and strategy.

Formerly: Formerly BPBE 428

Prerequisite(s): Successful completion of 75 credit units of university-level courses or consent of the instructor. Successful completion of 90 credit units of university-level courses; or COMM 101, COMM 201 and either AREC 320 or AREC 322; or permission of the instructor.

Note: Students with credit for BPBE 428 cannot take this course for credit

Rationale: This change is requested to ensure that students have the necessary academic preparation to succeed in this course.

Changes to Program Requirements

Agricultural Economics

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

Years 3 and 4 (60 credit units)

- AREC 315.3
- AREC 322.3
- AREC 342.3
- AREC 361.3 and AREC 461.3 or ECON 304.3 and ECON 408.3
- AREC 494.6
- COMM 201.3
- COMM 203.3
- COMM 204.3
- MATH 264.3 MATH 164.3

Rationale: The Mathematics and Statistics department changed MATH 264.3 to MATH 164.3 last year, but the Course and Program Catalogue entry was not updated for the Agricultural Economics program.

Agricultural Economics

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

Year 2 (30 credit units)

Choose 3 credit units from the following:

- ECON 305.3
- ECON 306.3
- MATH 116.3
- MATH 264.3 MATH 164.3

Rationale: The Mathematics and Statistics department changed MATH 264.3 to MATH 164.3 last year, but the Course and Program Catalogue entry was not updated for the Agricultural Economics program.
Resource Economics and Policy

Bachelor of Science in Renewable Resource Management [B.Sc.(RRM)]

Year 3 (30 credit units)

Choose 9 credit units from the following, depending on area of interest:

Policy

- AGRC 211.3
- AREC 342.3
- AREC 432.3
- AREC 434.3
- AREC 451.3
- COMM 201.3
- ECON 231.3
- ECON 347.3
- GEOG 385.3
- PHIL 226.3
- POLS 111.3 or POLS 112.3
- POLS 225.3
- POLS 226.3
- POLS 326.3
- POLS 328.3
- POLS 425.3

Year 4 (30 credit units)

Choose 15 credit units from the following, depending on area of interest:

Policy

- AGRC 211.3
- AREC 342.3
- AREC 432.3
- AREC 434.3
- AREC 451.3
- COMM 201.3
- ECON 231.3
- ECON 347.3
- GEOG 385.3
- PHIL 226.3
- POLS 111.3 or POLS 112.3
- POLS 225.3
- POLS 226.3
- POLS 326.3
- POLS 328.3
- POLS 425.3
**Rationale:** Although a course code was created for AREC 434.3, it has never been developed or offered to the knowledge of the Agricultural and Resource Economics department.

**FOR INFORMATION**

**Change to Subject Code**

Current Subject Code: PLSC 445.3

Proposed Change to Subject Code: AGRC 445.3

Rationale: This change to the course code has been approved to expand the appeal of this course, not only to students registered in Plant Science degree programs, but also to other degree programs and areas of study within the College of AgBio.
University Course Challenge – December 2018
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)

Art History

Minor program revisions
Bachelor of Arts Honours, Double Honours, Four-year and Three-year
Add CLAS 240.3 (Ancient Art and Architecture I: Bronze Age to Classical), CLAS 243.3 (Ancient Art and Architecture II: Greco-Roman World), HIST 308.6 (Rome: Building and Living in the Ancient City), WGST 324.3 (Rebels with a Cause), and ART 340.3 (Contemporary Performance Art Theory and Praxis) as options in Requirement D6.
The Bachelor of Arts Double Honours – Art History and Studio Art – Majors 1 and 2 includes revisions to the Studio Areas. Details of these changes are listed under Studio Art below.

Bachelor of Arts Four-year (B.A. Four-year) - Art History
D6 Major Requirement (30 credit units)

Choose 24 senior credit units from the following: in the history of art.

- 200-Level, 300-Level or 400-Level ARTH Courses
- CLAS 240.3
- CLAS 243.3
- HIST 308.6
- WGST 324.3
- ART 340.3

Choose 6 credit units from the following:

- 100-Level ART Courses

Bachelor of Arts Three-year (B.A. Three-year) - Art History
D6 Major Requirements (24 credit units)

Choose 18 senior credit units from the following: in the history of art.

- 200-Level, 300-Level or 400-Level ARTH Courses
- CLAS 240.3
- CLAS 243.3
- HIST 308.6
- WGST 324.3
- ART 340.3

Choose 6 credit units from the following:

- 100-Level ART Courses

Bachelor of Arts Honours (B.A. Honours) - Art History
D6 Major Requirement (42 credit units)
Choose at least 6 credit units from the following:

- **400-Level ARTH Courses**

Choose at least 18 credit units from the following:

- **300-Level or 400-Level ARTH Courses**
- HIST 308.6
- WGST 324.3
- ART 340.3

Choose 12 senior credit units from the following:

- 200-Level, 300-Level or 400-Level ARTH Courses
- CLAS 240.3
- CLAS 243.3
- HIST 308.6
- WGST 324.3
- ART 340.3

Choose 6 credit units from the following:

- **100-Level ART Courses**

**Bachelor of Arts Double Honours - Art History - Major 1**

**D6 Major Requirement (30 credit units)**

Choose 30 senior credit units from the following:

- 200-Level, 300-Level or 400-Level ARTH Courses
- CLAS 240.3
- CLAS 243.3
- HIST 308.6
- WGST 324.3
- ART 340.3

**Double Honours - Art History - Major 2**

**Requirements (36 credit units)**

- ARTH 120.3
- ARTH 121.3

Choose 30 credit units from the following:

- 200-Level, 300-Level or 400-Level ARTH Courses
- CLAS 240.3
- CLAS 243.3
- HIST 308.6
- WGST 324.3
- ART 340.3
Bachelor of Arts Double Honours - Art History and Studio Art- Majors 1 and 2

D6 Major Requirement (66 credit units)

Students are strongly encouraged to complete 100-level ART courses in the first or second year of their program.

Students must complete 36 credit units in Studio Art (ART), and at least 30 credit units in Art History (ARTH), in addition to ARTH 120.3 and ARTH 121.3 listed in D1. Some ARTH courses may be used in lieu of ART courses. Students are strongly encouraged to work with an advisor to choose their courses.

- ART 112.6
- ART 141.3

Choose two of the following (6 -12 credit units):

- ART 111.6
- ART 136.3
- ART 151.3
- ART 152.3
- ART 161.3

Choose 15 - 21 credit units from the following:

Painting

- ART 111.6
- ART 211.6
- ART 311.6
- ART 411.6
- ART 421.6
- ART 431.6

Drawing

- ART 112.6
- ART 212.6
- ART 312.6
- ART 412.6
- ART 422.6

Printmaking

- ART 151.3
- ART 152.3
- ART 251.3
- ART 313.6
- ART 413.6
- ART 423.6
- ART 433.6
Digital and Integrated Practice Extended Media

- ART 136.3
- ART 230.3
- ART 231.3
- ART 236.3
- ART 237.3
- ART 330.3
- ART 331.3
- ART 338.3
- ART 339.3
- ART 340.3
- ART 438.3
- ART 439.3
- ART 460.3
- ART 461.3

Sculpture

- ART 136.3
- ART 141.3
- ART 214.6
- ART 241.3
- ART 242.3
- ART 341.3
- ART 342.3
- ART 441.3
- ART 442.3

Photography

- ART 161.3
- ART 216.6
- ART 316.6
- ART 235.3
- ART 416.6
- ART 426.6
- ART 436.6

Choose 30 credit units from the following:

- 200-Level, 300-Level or 400-Level ARTH Courses
- CLAS 240.3
- CLAS 243.3
- HIST 308.6
- WGST 324.3
- ART 340.3

Rationale: CLAS 240.3, CLAS 243.3, and HIST 308.3 are complementary courses to the courses in art and architecture offered by the Department of Art and Art History (ARTH 256.3 Introduction to Canadian Art and Architecture I; and ARTH 257.3 Introduction to Canadian Art and Architecture II). These courses will provide the program with early period courses, which are currently lacking.
WGST 324.3 is a course on the history of feminist art from the 1970s to the present. It has in the past been used as a substitution in the Art History programs, and this change will ensure that all students are aware that the course can be used to meet program requirements. This upper year course offers students exposure not only to an important recent historical movement, but also to an important critical and methodological lens through which the history of art can be examined more broadly. ART 340 (see below) will be similar to the existing (and moribund) ARTH 340, but will have more emphasis on praxis. See Studio Art below for details on changes to Studio Areas lists.

New course(s):

ARTH 306.3 Medieval Art and Architecture
1/2 (3S) This course will survey the history of Medieval art and architecture from its early Christian origins to the end of the Gothic period, roughly the third to the late fourteenth centuries. Beginning with the development of Christian imagery and architectural forms, participants will study the many functions of art and architecture throughout the Middle Ages. Toward the end of the course we will examine the church building, especially the cathedral, as an integral work of art that incorporates sculpture and painting with architecture. We will also address some of the theoretical issues influencing the interpretation of Medieval art (e.g., How are medieval monuments viewed from feminist or postmodern perspectives?)

Prerequisite(s): ARTH 120 and 121; or 6 credit units HIST courses; or CMRS 111 and permission of the instructor

Note: A foundational knowledge of both the critical study of art (formal and contextual analysis) and medieval European history would be the best of all possible backgrounds for this course; the instructor recognizes, however, that most students will be more familiar with one or the other, but not both fields. A list of recommended background reading is included with this syllabus. Students should expect to be confronted with unfamiliar terminology and historical information and must be prepared to inform themselves through additional research.

Instructor: Sharon Wright

Rationale: This course is being created in consultation with ARTH and CMRS to increase the offerings in pre-modern art history. This proposal accompanies a minor program change in ARTH to diversify the program's offerings and to extend the historical scope of the program back from the Renaissance, through the Medieval period and into the Classical period.

Applied Mathematics

Minor program revisions

Bachelor of Science Honours, Four-year and Three-year in Applied Mathematics

Add MATH 176 and 177 as options to MATH 110 and 116, respectively, for all levels. For the Honours program, add MATH 163 as a required course in C6, and remove MATH 366.

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

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

Bachelor of Science Honours (B.Sc. Honours) - Applied Mathematics

C4 Mathematics and Statistics Requirement (6 credit units)

Choose 6 credit units from the following:

- MATH 110.3 and MATH 116.3
- MATH 123.3 and MATH 124.3
- MATH 121.3 or MATH 125.3; and MATH 128.3
- MATH 176.3 and MATH 177.3
Bachelor of Science Honours (B.Sc. Honours) - Applied Mathematics
C6 Major Requirement (66 credit units)

The program does not require the specification of a concentration area. However, some students will find it to be a useful option to build their program around specific courses with applications in particular areas. For example, students with an interest in the physical sciences (chemistry, geology and geophysics, physics, engineering) might choose to emphasize ‘continuous’ mathematical tools such as differential equations, whereas students with interests in the life sciences (biology, biochemistry, biomedicine, biostatistics, epidemiology) and the social sciences (economics, psychology, sociology) might direct their study towards ‘discrete’ mathematical methods such as linear programming, graph theory, combinatorics or towards statistical methods.

Ideally, by the time of graduation, every student will have been exposed to aspects of continuous, discrete, and probabilistic and statistical methods.

- MATH 163.3
- MATH 211.3
- MATH 238.3
- MATH 313.3
- MATH 327.3
- MATH 331.3
- MATH 336.3
- MATH 339.3
- MATH 352.3
- MATH 366.3
- MATH 371.3
- MATH 379.3
- MATH 436.3
- MATH 438.3
- STAT 241.3

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No additional changes.

Rationale: MATH 163 is being introduced as a foundational course in mathematical thinking, and MATH 366 is proposed to be deleted. See details below. MATH 176 and 177 are equivalent to MATH 110 and 116, respectively, and therefore are an alternate option for introductory courses in this program.

Biochemistry

Minor program revisions
Bachelor of Science Honours in Biochemistry
Revise C6 Requirement to make BIOC 289.6 an option rather than a requirement.

Bachelor of Science Honours (B.Sc. Honours) - Biochemistry

C6 Major Requirement (63 credit units)

- BMSC 200.3
- BMSC 210.3
- BMSC 220.3
- BMSC 230.3
- BMSC 240.3
- PHSI 208.6
- BIOC 300.3
- BIOC 310.3
- BIOC 311.3 or MCIM 391.3
- BIOC 412.3
- BIOC 430.3 or BIOC 435.3
- BIOC 436.3
- BIOC 489.6
- BIOC 490.0 (attendance in BIOC 490.0 is required in both term 1 and 2)
- BINF 200.3 or BINF 210.3
- CHEM 250.3

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

CHEM 255.3 is recommended

- **200-Level, 300-Level or 400-Level CHEM Courses**

**Biochemistry Electives (6 12 credit units)**

Choose **3 to 6 to 12 credit units** from the following:

- BIOC 405.3
- BIOC 420.3
- BIOC 430.3
- BIOC 435.3
- BIOC 437.3

Choose **0 to 6 3 credit units** from the following:

- ACB 325.3
- ACB 333.3
- BINF 300.3
- BIOL 316.3
- BIOL 331.3
- BIOL 420.3
- CHEM 456.3
- MCIM 417.3
- MCIM 321.3
- MCIM 390.3
- PHPY 301.3
- PHPY 302.3
- PHPY 303.3

Rationale: With fluctuations in the numbers of honors students and available projects there have been difficulties in securing a project for every honors student. With this revision the honors degree will now have BIOC 489.6 as one of the major optional courses but will no longer be required. This change aligns the Biochemistry program with the other Biomedical Sciences Honours programs.
**Bioinformatics**

**Minor program revisions**  
**Bachelor of Science Honours and Four-year in Bioinformatics**  
Remove CHEM and MATH courses listed in C1 and C4 from the list of courses included in the Major Average and Residency Requirements.

**Major Average**

The major average in Bioinformatics programs includes the grades earned in:

- **BIOL 120.3, BIOL 121.3, CHEM 112.3, CMPT 141.3, and CMPT 145.3, MATH 110.3, and MATH 116.3**
- All courses listed in the Major Requirement C6.

**Residency Requirements in the Major**

To receive a degree in Bioinformatics, students must complete at least two-thirds of the following coursework (to the nearest highest multiple of 3 credit units) from the University of Saskatchewan.

- **BIOL 120.3, BIOL 121.3, CHEM 112.3, CHEM 115.3, CMPT 141.3, and CMPT 145.3, MATH 110.3, and MATH 116.3**
- Minimum requirements in Major Requirement C6.

See Residency for additional details.

Rationale: The Bioinformatics program is unusual in that it currently includes 21 credit units of introductory science and math courses in the major average and in the residency requirements, unlike most other B.Sc. programs which only include 6 credit units of subject specific courses. This change will better align the program with common practice, putting the students in the program on a more even footing with their peers in other science programs with regard to the major average, and make it easier for students to transfer in to this program after starting their studies at another institution.  
No change is being made to the program requirements.  
CHEM 115.3 is currently included in the list of courses for residency, but this is not a required course in the program. This error is being corrected.

**Classical, Medieval and Renaissance Studies**

**Minor program revisions**  
**Bachelor of Arts Honours, Double Honours, Four-year and Minor in Classical, Medieval and Renaissance Studies**

Honours and Four-year: Add the following courses to the A6 Major Requirement:

- **under Period Requirements: Classical World**
  - HIST 273.3, Ancient Medicine  
  - HIST 335.3, Spectacles of Death in the Ancient World  
- **under Period Requirements: Late Antiquity and Early Middle Ages**
  - HIST 211.3, Martyrs Mystics and Madmen  
- **under Areas of Concentration: History and Archaeology**
  - HIST 211.3, Martyrs Mystics and Madmen  
- **under Areas of Concentration: Classical Thought and History of Ideas**
  - HIST 273.3, Ancient Medicine  
  - PLAN 392.3, Early History of Geographic and Planning Thought
Double Honours (Major 1) – Requirement A6, Minor, and Double Honours (Major 2): Add the following courses under Areas of Concentration:

- under History and Archaeology:
  - HIST 211.3, Martyrs Mystics and Madmen
- under Classical Thought and History of Ideas:
  - HIST 273.3, Ancient Medicine
  - PLAN 392.3, Early History of Geographic and Planning Thought

Bachelor of Arts Four-year (B.A. Four-year) - Classical, Medieval and Renaissance Studies
A6 Major Requirement (57 credit units)

Of the total 57 credit units required at least 3 credit units must be at the 300-level.

- CMRS 401.3

Period Requirements

Choose 6 credit units from each category:

Classical World

- CLAS 110.3
- CLAS 111.3
- CLAS 220.3
- CLAS 225.3
- CLAS 240.3
- CLAS 242.3
- HIST 203.3
- HIST 207.3
- HIST 208.3
- HIST 209.3
- HIST 273.3
- HIST 335.3
- PHIL 208.3
- PHIL 209.3
- CMRS Special Topics courses can be used with approval of the Program Director.

Late Antiquity and Early Middle Ages

- CLAS 252.3
- CLAS 259.3
- ENG 217.3
- ENG 284.3
- ENG 301.3
- ENG 310.3
- HIST 202.3
- HIST 211.3
- HIST 217.3
- HIST 218.3
- HIST 221.3
- PHIL 210.3
- RLST 363.3
• CMRS Special Topics courses can be used with approval of the Program Director.

Later Middle Ages and Renaissance

• *No change*

Areas of Concentration (24 credit units)

Courses must be selected from one of the following 3 areas:

History and Archaeology

• ARCH 116.3
• ARCH 244.3
• ARCH 252.3
• ...
• HIST 208.3
• HIST 209.3
• HIST 211.3
• HIST 214.3
• HIST 217.3
• ...
• LATN 400.3*

• CMRS Special Topics courses can be used with approval of the Program Director.

Literature, Fine Arts, Language

• *No change*

Classical Thought and the History of Ideas

• CLAS 252.3
• CLAS 259.3
• CTST 200.3
• HIST 273.3
• HIST 309.3
• HIST 330.3
• ...
• PHIL 211.3
• PHIL 412.3
• PLAN 392.3
• POLS 236.3
• RLST 253.3
• ...
• RLST 363.3

• CMRS Special Topics courses can be used with approval of the Program Director.

* A shell course that may be taken more than once

...
Bachelor of Arts Honours (B.A. Honours) - Classical, Medieval & Renaissance Studies
A6 Major Requirement (60 credit units)

Of the total 54 credit units required, at least 6 credit units must be at the 300-level and 12 credit units at the 400-level (includes CMRS 401.3 and CMRS 402.3).

- CMRS 401.3
- CMRS 402.3
- HIST 494.0

Choose 6 credit units from one of the following:

- 100-Level , 200-Level , 300-Level or 400-Level GRK Courses
- 100-Level , 200-Level , 300-Level or 400-Level HEB Courses
- 100-Level , 200-Level , 300-Level or 400-Level LATN Courses
- ENG 301.3, ENG 310.3
- FREN 122.3, FREN 125.3, FREN 212.3, FREN 218.3, FREN 220.3
- GERM 202.3, GERM 204.3, GERM 214.3, GERM 217.3
- SPAN 202.3, SPAN 204.3, SPAN 214.3, SPAN 217.3

Period Requirements

Choose 6 credit units from each category for a total of 18 credit units

Classical World

- CLAS 110.3
- CLAS 111.3
- CLAS 220.3
- CLAS 225.3
- CLAS 240.3
- CLAS 242.3
- HIST 203.3
- HIST 207.3
- HIST 208.3
- HIST 209.3
- HIST 273.3
- HIST 335.3
- PHIL 208.3
- PHIL 209.3
- CMRS Special Topics courses can be used with approval of the Program Director.

Late Antiquity and Early Middle Ages

- CLAS 252.3
- CLAS 259.3
- ENG 217.3
- ENG 284.3
- ENG 301.3
- ENG 310.3
- HIST 202.3
- HIST 211.3
• HIST 217.3
• HIST 218.3
• HIST 221.3
• HIST 335.3
• PHIL 210.3
• RLST 363.3
• CMRS Special Topics courses can be used with approval of the Program Director.

Later Middle Ages and Renaissance

• *No change*

Areas of Concentration (24 credit units)

Courses must be selected from one of the following 3 areas:

History and Archaeology

• ARCH 116.3
• ARCH 244.3
• ARCH 252.3
• ...
• HIST 208.3
• HIST 209.3
• HIST 211.3
• HIST 214.3
• HIST 217.3
• HIST 218.3
• ...
• LATN 400.3*
• CMRS Special Topics courses can be used with approval of the Program Director.

Literature, Fine Arts, Language

• *No change*

Classical Thought and the History of Ideas

• CLAS 252.3
• CLAS 259.3
• CTST 200.3
• HIST 273.3
• HIST 309.3
• HIST 330.3
• HIST 331.3
• ...
• PHIL 211.3
• PHIL 412.3
• PLAN 392.3
• POLS 236.3
• RLST 253.3
• ...
• RLST 363.3
• CMRS Special Topics courses can be used with approval of the Program Director.

* A shell course that may be taken more than once

Classical, Medieval & Renaissance Studies - Minor Program Requirements

• CMRS 110.3
• CMRS 111.3

Areas of Concentration (18 credit units)

Courses must be selected from one of the following 3 areas:

History & Archaeology

• ARCH 116.3
• ARCH 244.3
• ARCH 252.3
• ...
• HIST 208.3
• HIST 209.3
• HIST 211.3
• HIST 214.3
• HIST 217.3
• ...
• LATN 400.3*
• CMRS Special Topics courses can be used with approval of the Program Director.

Literature, Fine Arts & Language

Classical Thought and the History of Ideas

• CLAS 252.3
• CLAS 259.3
• CTST 200.3
• HIST 273.3
• HIST 309.3
• HIST 330.3
• ...
• PHIL 211.3
• PHIL 412.3
• PLAN 392.3
• POLS 236.3
• RLST 253.3
• ...
• RLST 363.3
• CMRS Special Topics courses can be used with approval of the Program Director.
A shell course that may be taken more than once

**Bachelor of Arts Double Honours - Classical, Medieval & Renaissance Studies - Major 1**

**A6 Major Requirement (24 credit units)**

- CMRS 401.3
- CMRS 402.3
- HIST 494.0

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

- **ENG 301.3, ENG 310.3**
- FREN 122.3, FREN 125.3, FREN 212.3, FREN 218.3, FREN 220.3
- GERM 202.3, GERM 204.3, GERM 214.3, GERM 217.3
- SPAN 202.3, SPAN 204.3, SPAN 214.3, SPAN 217.3
- 100-Level, 200-Level, 300-Level or 400-Level GRK Courses
- 100-Level, 200-Level, 300-Level or 400-Level HEB Courses
- 100-Level, 200-Level, 300-Level or 400-Level LATN Courses

**Areas of Concentration (12 credit units)**

Note: 298, 299, 398, 399, 498, 499 courses may be used toward period requirements depending on course content.

Courses must be selected from one of the following 3 areas:

**History and Archaeology**

- ARCH 116.3
- ARCH 244.3
- ARCH 252.3
- ...
- HIST 208.3
- HIST 209.3
- HIST 211.3
- HIST 214.3
- HIST 217.3
- ...
- LATN 400.3*

CMRS Special Topics courses can be used with approval of the Program Director.

**Literature, Fine Arts, Language**

- *No change*

**Classical Thought and the History of Ideas**

- CLAS 252.3
Bachelor of Arts Double Honours - Classical, Medieval & Renaissance Studies - Major 2
Program Requirements (36 credit units)

- CMRS 110.3
- CMRS 111.3
- CMRS 401.3
- CMRS 402.3
- HIST 494.0

Choose 6 credit units from the following:

- 100-Level, 200-Level, 300-Level or 400-Level GRK Courses
- 100-Level, 200-Level, 300-Level or 400-Level HEB Courses
- 100-Level, 200-Level, 300-Level or 400-Level LATN Courses

Choose 6 additional credit units from the following:

- ENG 301.3, ENG 310.3
- FREN 122.3, FREN 125.3, FREN 212.3, FREN 218.3, FREN 220.3
- GERM 202.3, GERM 204.3, GERM 214.3, GERM 217.3
- SPAN 202.3, SPAN 204.3, SPAN 214.3, SPAN 217.3
- 100-Level, 200-Level, 300-Level or 400-Level GRK Courses
- 100-Level, 200-Level, 300-Level or 400-Level HEB Courses
- 100-Level, 200-Level, 300-Level or 400-Level LATN Courses

* A shell course that may be taken more than once

CMRS Special Topics courses can be used with approval of the Program Director.
Areas of Concentration (12 credit units)

Note: 298, 299, 398, 399, 498, 499 courses may be used toward period requirements depending on course content.

Courses must be selected from one of the following 3 areas:

History and Archaeology

- ARCH 116.3
- ARCH 244.3
- ARCH 252.3
- ...
- HIST 208.3
- HIST 209.3
- HIST 211.3
- HIST 214.3
- HIST 217.3
- ...
- LATN 400.3*
  - CMRS Special Topics courses can be used with approval of the Program Director.

Literature, Fine Arts, Language

- No change

Classical Thought and the History of Ideas

- CLAS 252.3
- CLAS 259.3
- CTST 200.3
- HIST 273.3
- HIST 309.3
- HIST 330.3
- ...
- PHIL 211.3
- PHIL 412.3
- PLAN 392.3
- POLS 236.3
- RLST 253.3
- ...
- RLST 363.3
  - CMRS Special Topics courses can be used with approval of the Program Director.

* A shell course that may be taken more than once

Rationale: The added courses have recently been created, and are relevant to this field. Each of the new courses is normally taught by an instructor associated with the CMRS program.
Classics

Minor course revisions
CLAS 240.3 Ancient Art and Architecture I Bronze Age to Classical Greece
CLAS 242.3 Ancient Art and Architecture II Graeco Roman World
Prerequisite change:
Old prerequisite(s): CLAS 110 and 111, or completion of 30 credit units at the university.
New prerequisite(s): CLAS 110 and 111, or 6 credit units of ARTH courses, or completion of 30 credit units at the university.
Rationale: A foundation in Art History will sufficiently prepare students for these classes.

Critical Perspectives on Social Justice and the Common Good

Minor program revisions
Minor in Critical Perspectives on Social Justice and the Common Good
Add INTS 112.3 as an option in this program.

Critical Perspectives on Social Justice & the Common Good - Minor

Requirements (21 credit units)

Courses must be taken from at least 3 different subjects.

- INTS 203.3
- INTS 400.3

Choose 15 credit units from the following:

- At least 3 credit units must be at the 300- or 400-Level
- A minimum of 3 credit units must be taken from each of the Humanities and the Social Sciences lists

Humanities

- No change to list

Interdisciplinary Studies

- INTS 112.3

Social Sciences

- No change to list

Rationale: Introduction to Peace Studies (see below) will enrich students’ experience of the Minor in Critical Perspectives on Social Justice and the Common Good by allowing for a fuller conversation within the minor about how justice and peace are Necessary interlocutors in a vision of the common good. As proposed, INTS 112 concretizes peace studies within case studies of Indigenous-Settler relations in Canada as well as Israeli-Palestinian relations, bringing both a national and international lens to the theoretical materials. In particular, to borrow from the minor’s catalogue description, Intro to Peace Studies will help “prepare students to be responsible critics of contemporary societies and effective
agents for positive social transformation. Students will reflect on the causes and structures of injustice and approaches to social change at interpersonal, communal, national and global levels."

The course will also offer students an introduction to one more distinctive academic discipline that contributes to the discourses at the centre of the minor, encouraging students to think critically about peace and human flourishing and equipping them to bring this disciplinary (and interdisciplinary) lens to the other courses they take within the minor.

New course(s):
INTS 112.3 Introduction to Peace Studies
1/2 (3L) What is peace? What is justice? What are the causes that lead to violent conflict, what strategies can bring violent conflict to an end, and what conditions promote human flourishing? This course introduces students to the various ways scholars and activists define peace and the challenges they face in securing peace. The course surveys the major causes of direct and structural violence; the various definitions of “peace” and the conditions under which it is achieved and sustained; and the comparative success of various strategies to promote nonviolent social change. Because peace studies is an interdisciplinary field, the course will draw widely on sources from the humanities and social sciences. And because peace studies is a praxis-oriented field, students will also be asked to reflect on both applications of theory to current global and local events as well as on their own practices of community engagement.

Instructor(s): Chris Hrynkow, Sharon Wright, Cynthia Wallace

Rationale: Peace studies developed as a scholarly discipline and area of praxis in the era following World War II, and since that time it has flourished as a means of studying conflict and both theorizing and engaging in best practice interventions for the sake of human flourishing at the domestic, local, national, and global levels. The proposed course will introduce students to this history as well as the complexities of concepts like justice, reconciliation, and nonviolent resistance, topics that are particularly timely for Settler-Indigenous relations in Canada and a global landscape beset by war. The course also vibrantly echoes goals of the University's recently released plan, particularly its emphasis on courageous curiosity and inspired communities—Intro to Peace Studies is the sort of course that is at the heart of a "university the world needs."

To date, some 400 Peace Studies programs exist around world, with more than a dozen programs in Canadian post-secondary institutions, but none in Saskatchewan. A working group has recently been formed to explore the possibility of a peace studies certificate, and it is in the early stages of wide consultation, welcoming any and all feedback. In the meantime, an Introduction to Peace Studies course will enrich the Minor in Critical Perspectives on Social Justice and the Common Good and fill in this gap in the university's offerings. Informally, many of the students currently taking the minor's introductory course (INTS 203, Cultivating Humanity) have expressed keen interest in an Introduction to Peace Studies course, and the course will also align with and mutually enliven the research program of Professor Chris Hrynkow, whose Ph.D. is in Peace and Conflict Studies.

Economics

Minor program revisions
Bachelor of Arts Honours, Double Honours, Four-year and Three-year in Economics
Add requirement to choose one of MATH 104, 110, 121, 123, or 125. For Honours and Double Honours programs only: Remove MATH 164 (formerly MATH 264) as an alternate to ECON 305 or MATH 266.

Catalogue entry:

Economics

Economics is the science describing the production and distribution of wealth. The undergraduate Economics program provides students with the theoretical and empirical tools to comprehend, assess and analyze the many pressing issues and problems of society in an economic context. Areas of study include basic and advanced economic theory, public policy, labour and regional development, as well as
the quantitative and historical aspects of economics.

An undergraduate degree in Economics provides an excellent academic background for students interested in advanced studies in accounting, business, commerce, communications, finance, international studies, journalism, law or politics. A Master's or Ph.D. degree can be a significant advantage in terms of career opportunities. The University of Saskatchewan's highly regarded undergraduate Economics program has provided our students with solid foundations to successfully pursue advanced degrees in economics at the U of S as well as in leading universities in Canada, the U.S., the U.K. and France.

The Department of Economics also offers programs in Business Economics.

**ECON 111 and a junior course in calculus are prerequisites for most 300- and 400-level Economics courses.**

The requirement of ECON 305 for the Honours program can be met by a course in linear algebra e.g., MATH 164 or 266. The requirement of ECON 306 can be met by a course in the calculus of multiple variables e.g., MATH 225 or MATH 276. Other mathematics classes may satisfy the equivalency criteria; students should consult with the Head of the Department.

The ECON 305 and 306 equivalency courses in mathematics may not be used to satisfy:

**Bachelor of Arts Four-year (B.A. Four-year) - Economics**

**B3 Science Requirement (6 credit units)**

Economics students are advised to complete 6 credit units in mathematics in their first year. A junior course in calculus (MATH 110.3 recommended, MATH 104.3 acceptable) is a prerequisite for all 300- and 400-level Economics courses and may be used to meet requirement B3.

Choose 3 credit units from the following:

- MATH 104.3
- MATH 110.3 (recommended)
- MATH 121.3
- MATH 123.3
- MATH 125.3

Choose 6 3 credit units from the following:

- ASTR 102.3
- ASTR 104.3
- ...
- STAT 103.3
  - Any senior-level science course provided the prerequisite is met.
  - MATH 102.3 and STAT 244.3 may not be used to meet the Science Requirement.
Bachelor of Arts Three-year (B.A. Three-year) - Economics

B3 Science Requirement (6 credit units)

Economics students are advised to complete 6 credit units in mathematics in their first year. A junior course in calculus (MATH 110.3 recommended, MATH 104.3 acceptable) is a prerequisite for all 300-and 400-level Economics courses and may be used to meet requirement B3.

Choose 3 credit units from the following:

- MATH 104.3
- MATH 110.3 (recommended)
- MATH 121.3
- MATH 123.3
- MATH 125.3

Choose 6 3 credit units from the following:

- ASTR 102.3
- ASTR 104.3
- ...
- STAT 103.3
  - Any senior-level science course provided the prerequisite is met.
  - MATH 102.3 and STAT 244.3 may not be used to meet the Science Requirement.

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

B3 Science Requirement (6 credit units)

Economics students are advised to complete 6 credit units in mathematics in their first year. A junior course in calculus (MATH 110.3 recommended, MATH 104.3 acceptable) is a prerequisite for all 300-and 400-level Economics courses and may be used to meet requirement B3.

Choose 3 credit units from the following:

- MATH 104.3
- MATH 110.3 (recommended)
- MATH 121.3
- MATH 123.3
- MATH 125.3

Choose 6 3 credit units from the following:

- ASTR 102.3
- ASTR 104.3
- ...
- STAT 103.3
  - Any senior-level science course provided the prerequisite is met.
  - MATH 102.3 and STAT 244.3 may not be used to meet the Science Requirement.
B6 Major Requirement (42 credit units)

At least 12 credit units must be at the 400-level.

- ECON 211.3 or ECON 273.3
- ECON 214.3 or ECON 274.3
- ECON 304.3
- ECON 305.3 or MATH 164.3 (formerly MATH 264.3) or MATH 266.3
- ECON 306.3 or MATH 225.3 or MATH 276.3
- ECON 389.3 or ECON 489.3
- ECON 408.3
- STAT 245.3

* See Statistics Course Regulations in Policies and Regulations in the Academic Information and Policies section.

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

- ECON 373.3
- ECON 412.3
- ECON 450.3
- ECON 473.3
- ECON 474.3

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

- ECON 374.3
- ECON 411.3
- ECON 414.3

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

- 200-Level, 300-Level or 400-Level ECON Courses

**Bachelor of Arts Double Honours - Economics - Major 1**

B3 Science Requirement (6 credit units)

Economics students are advised to complete 6 credit units in mathematics in their first year. A junior course in calculus (MATH 110.3 recommended, MATH 104.3 acceptable) is a prerequisite for all 300- and 400-level Economics courses and may be used to meet requirement B3.

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

- MATH 104.3
- MATH 110.3 (recommended)
- MATH 121.3
- MATH 123.3
- MATH 125.3

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

- ASTR 102.3
- ASTR 104.3
- ...
- STAT 103.3
  - Any senior-level science course provided the prerequisite is met.
  - MATH 102.3 and STAT 244.3 may not be used to meet the Science Requirement.

**B6 Major Requirement (30 credit units)**

- ECON 211.3 or ECON 273.3
- ECON 214.3 or ECON 274.3
- ECON 304.3
- ECON 305.3 or MATH 164.3 (formerly MATH 264.3) or MATH 266.3
- ECON 306.3 or MATH 225.3 or MATH 276.3
- ECON 408.3
- STAT 245.3

* See Statistics Course Regulations in Policies and Regulations in the Academic Information and Policies section.

Choose 9 credit units from the following:

- 300-Level or 400-Level ECON Courses

**Double Honours - Economics - Major 2 Requirements (36 39 credit units)**

- ECON 111.3
- ECON 114.3
- ECON 211.3 or ECON 273.3
- ECON 214.3 or ECON 274.3
- ECON 304.3
- ECON 305.3 or MATH 164.3 (formerly MATH 264.3) or MATH 266.3
- ECON 306.3 or MATH 225.3 or MATH 276.3
- ECON 408.3
- STAT 245.3

* See Statistics Course Regulations in the Academic Information and Policies section.

Choose 3 credit units from the following:

- MATH 104.3
- MATH 110.3 (recommended)
- MATH 121.3
- MATH 123.3
- MATH 125.3

Choose 9 credit units from the following:

- 300-Level or 400-Level ECON Courses

If you require further assistance, please contact the Arts & Science Undergraduate Student Office.
Rationale: The programs have previously included notes to let students know that a junior course in calculus is required as a prerequisite for all 300 and 400-level Economics courses. The department now feels that it would be clearer for students to make this an explicit program requirement. Previously the department allowed students to take MATH 264 or 266 as an alternative to ECON 305. With the approved renumbering and minor revisions of MATH 264 (to MATH 164 as of May 2017), the department feels that MATH 266 is now the only appropriate alternative.

English

Minor program revisions
Bachelor of Arts Honours in English
Add ENG 383 to Category 4 list in Requirement A6.

Bachelor of Arts Honours (B.A. Honours) - English
A6 Major Requirement (54 credit units)

Choose 12 credit units from the following Foundation Courses:

- ENG 202.6
- ENG 203.6
- ENG 204.6
- ENG 290.6

Choose 6 credit units from EACH of categories 1 through 3 (18 credit units in all).

Category 1: Anglo-Saxon & Medieval
- No change

Category 2: Renaissance
- No change

Category 3: 18th/19th Century
- No change

Choose 6 credit units from category 4 and/or category 5:

Category 4: 20th Century

- ENG 207.3
- ENG 209.3
- ENG 242.3
- ENG 253.6
- ENG 305.3
- ENG 330.3
- ENG 338.3
- ENG 348.3
- ENG 349.3
- ENG 358.3
• ENG 359.3
• ENG 360.3
• ENG 363.3
• ENG 368.3
• ENG 381.3
• ENG 382.3
• ENG 383.3
• ENG 444.3
• ENG 446.3
• ENG 462.3
• ENG 464.3
• ENG 466.3
• ENG 468.3

Category 5: Media, Culture, and Community

• No change

Choose 18 credit units from the following:

• 200-Level, 300-Level or 400-Level ENG Courses
• ENG 120.3

Further A6 Major Requirements:

...

Rationale: ENG 383.3 is appropriate to be placed in Category 4 with the other offerings in the field (207, 209, 444), which will emphasize its 20th and 21st century foci, and enable Honours students to use it to fulfill their degree requirements.

New course(s):
ENG 220.3 Studies in the Craft of Writing
1/2 (1.5L-1.5S) A study of "reading like a writer," this course explores two genres—typically, contemporary poetry and fiction—through the critical analysis and subsequent practice of literary technique. In addition to engaging with elements of style through lectures and workshops, students will explore the aesthetic and sociopolitical underpinnings of assigned readings to consider how form and content exist in a mutually enlivening relationship. Visiting authors may be invited into the classroom, and students will be encouraged to attend literary events in the community. By the end of the course, students will have completed at least one research essay and a portfolio of polished writing in two genres.
Prerequisite(s): 6 credit units of 100-level English.
Note: Prior completion of ENG 120.3 is strongly recommended.
Instructor(s): Jeanette Lynes, Barbara Langhorst, Sheri Benning

Rationale: This course arises from our recognition of the consistent popularity of ENG 120.3: Introduction to Creative Writing and the growing prominence of the Writing Diploma offered at St. Peter's College. The growth of the MFA in Writing Program in the Department of English is also an informing factor, as interest in Creative Writing reflects a global demand for professional writing courses. This course is intended to help meet that demand by filling a gap in our current slate of Creative Writing offerings. Our introductory Course, ENG 120.3, has an enrollment capped at 80 students, and it is based in lectures that guide students in the practice of creative writing, as that practice is refined in workshops. There are five 300-level classes on Creative Writing, which are available on a rotating basis. These are for
undergraduate students who demonstrate advanced writing skills; registration requires permission of the instructor. These 300-level courses have a limited enrollment (capped at no more than 20 students) because they are based upon the workshopping of student writing; that is, each student's written work is discussed and revised and refined through group exchanges facilitated by an experienced writer. Missing from this course slate is a class through which a range of students can engage in a study of technique and the craft of writing; that is, a class on “reading like a writer”—which is a hallmark of Creative Writing programs at other institutions.

Our goal is to expand the options available to undergraduate students by offering ENG 220.3: Studies in the Craft of Writing. It would be capped at 50 students and would be a lecture / workshop course. (There would be two tutorial sections of 25 students each; these would meet weekly; the instructor would lead one tutorial and a graduate student from the MFA in Writing program would likely lead the second.) The course would teach methods of analyzing genre and style through example texts and according to theories of writing; it is thus designed to expand a student's academic understanding of writing techniques and to develop the critical reading skills required of all literary studies classes at the 200-level. However, to engage students in an informed consideration of writing from a technical perspective, the course also involves the application of that knowledge in creative form: instead of a final exam, a final portfolio of student creative writing would be assigned. The course would thus support departmental 200-level learning outcomes through written analysis of text and technique, but it would also support workshop-based instruction, and it would thus allow students to explore the increasingly important place of critical / creative hybrid approaches to engaging with complex issues.

ENG 220.3 would allow the department to meet objectives directly aligned with the College's Vision Statement:
- to engage students from different disciplines within and beyond the College of Arts and Science in the study of the Fine Arts and the practice of writing as a craft;
- to inspire interdisciplinary artistic and scholarly work by connecting literary studies and creative writing in the academic treatment and artistic application of technique; and
- to promote creativity within the context of local writing communities (e.g. the Saskatoon Public Library's Writer-in-Residence program, and literary events such as Saskatoon's Word on the Street, the River Volta reading series, and the University of Saskatchewan's Writing North event).

The benefits of Creative Writing courses for units affiliated with the Department of English are illustrated by the place of ENG 120.3 in the college's Aboriginal Student Achievement Program, this year led by Indigenous scholar and writer Tasha Beeds. St. Thomas More College offers ENG 366.3 on a rotating basis, led by the award-winning writer Guy Vanderhaeghe. St. Peter's College has established the Writing Diploma, which includes the two non-fiction writing workshop courses as well as the multi-genre workshop that is ENG 365.6. ENG 365.6 has been particularly effective as part of ITEP (the Indian Teacher Education Program). As a two-term course, it enables the sustained practice of writing, where essay-writing and communication skills established in ENG 110.6 are further supported in a subsequent year through the students' mentored engagement with creative modes of expression.

“Studies in the Craft of Writing” would not replace but would rather augment these creative writing courses. The first-year course, ENG 120.3, is intended to introduce students to the analysis of literature through the lens of technique, with emphasis placed on the workshopping of students’ own creative work. The five 300-level Creative Writing courses listed in the Course and Program Catalogue focus on specific genres and use the pedagogical model of the workshop, where a limited number of participants focus on their own writing and work with feedback from the instructor and fellow students. ENG 220.3 would represent a bridge between these instructional methods and would support the skills they develop. However, it would also operate as a stand-alone course reflecting Department of English Skill Standards for 200-level courses through its combination of critical or literary studies assignments (e.g. close reading assignments, the research essay) and creative or original applications of those skills through the student's exploration of literary styles, generic play, and artistic practices.

Environment & Society

Minor program revisions

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

Add GEOG 348.3 (Introduction to Demography) as an option in J3.
Bachelor of Arts and Science Four-year (B.A. & Sc. Four-year) - Environment & Society
Bachelor of Arts and Science Honours (B.A. & Sc. Honours) - Environment & Society

J3 Major Requirement (63 credit units)

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

- GEOG 222.3
- GEOG 280.3
- GEOG 302.3
- GEOG 322.3
- ENVS 401.3

Science (24 senior credit units)

At least 9 credit units from the following two categories must be at the 300 level or above.

Category A

Principles of the Physical Environment (21 credit units)

- TOX 200.3 or TOX 301.3
- EVSC 203.3

Hydrology

- GEOG 225.3
- GEOG 325.3
- GEOG 328.3
- GEOG 427.3

Climatology

- GEOG 233.3
- GEOG 333.3

Vegetation

- BIOL 228.3
- BIOL 324.3
- GEOG 271.3
- GEOG 273.3

Geomorphology

- GEOG 235.3
- GEOG 335.3

Northern Environments

- GEOG 351.3
• GEOG 380.3

Category B

Tools and Applications (3 credit units)

• GEOG 290.3
• GEOG 420.3
• GEOG 423.3
• EVSC 203.3

Social Sciences or Humanities (24 senior credit units)

At least 9 credit units must be at the 300 level or above.

• POLS 226.3
• HIST 290.3 or PHIL 226.3
• POLS 256.3 or SOC 232.3

Choose 15 credit units from the following:

• ANTH 240.3
• ANTH 244.3
• ANTH 329.3
• ECON 277.3
• GEOG 240.3
• GEOG 340.3
• GEOG 342.3
• GEOG 348.3
• GEOG 364.3
• GEOG 381.3
• GEOG 385.3
• GEOG 386.3
• ENVS 201.3
• INCC 310.3
• PLAN 341.3
• POLS 328.3

Or other classes approved by the program advisor.

Rationale: GEOG 348.3: Introduction to Demography (proposed below) is a new course, developed with an intention to provide a course in demography and human population analysis to the Environment & Society programs.

New course(s):
GEOG 348.3 Introduction to Demography
1 (3L) This course will introduce the students to processes of growth, decline and distribution of populations and households. The first half of the term will discuss the prehistoric and historic demography of human populations, from migration waves out of Africa into Eurasia during the Paleolithic, to peopling of the Americas during the Mesolithic and the early Neolithic, the growth and distribution of human populations in Antiquity and the Middle-Ages, the processes of urbanization and population growth and redistribution since early modernity, Thomas Malthus’ Essay on the Principle of Population and his notion
of relation between food supply and population growth, and Frank Notestein formulation of the demographic transition theory. The second half of the term introduces modern demographic data and their sources, focusing on fertility, mortality, and migration. The term closes with the outline of population projection methodology as introduced through the twentieth century, applied to latest available Canadian census data.

Prerequisite(s): 24 credit units in Social Sciences or in Health disciplines, including STAT 144 or equivalent, and at least 3 credit units of 200-level ANTH, ECON, GEOG, HIST, PLAN, SOC; or permission of the instructor.

Instructor: Avi Akkerman

Rationale: Presently there is no introductory demography course on Campus, while there is an evident need for one to complement current curricula in social sciences or health studies, and to enhance scholarship background of students intending to enter graduate courses in socio-economic, health- or ecology-related disciplines. The target audiences are junior undergraduate students in the social sciences and health disciplines. The course GEOG 348 “Population Geography” was taught by the late Professor Jim Pooler, till c. 2007. The presently proposed GEOG 348 “Introduction to Demography” is deemed equivalent to the previous GEOG 348 "Population Geography." In its meeting of Friday, October 5, 2018, the Department of Geography and Planning unanimously endorsed the proposed course and its equivalency to the previous "Population Geography" course.

Course deletion(s):
GEOG 271.3 Regional Biogeography
GEOG 273.3 Principles of Biogeography

Rationale: These courses have not been offered for several years, and there is no plan to offer them in the future. Neither course is required for any program.

Global Studies

Minor program revisions
Degree Level Certificate in Global Studies
Remove moribund/deleted courses; combine the two lists in Cluster B; clarify the counting of courses in Cluster D and the language requirement; and add relevant courses to the cluster lists.

Certificate in Global Studies (Cert.) - (15-18 credit units)

This certificate requires the completion of the following 15-18 credit units:

- IS 110.3
- IS 201.3
- IS 202.0

3 credit units Language Course or Demonstrated Language Competency

Students must either (a) complete a language course worth at least 3 credit units at the University of Saskatchewan or any other accredited post-secondary institution; or (b) demonstrate fluency or at least high functional competency in a language other than English.

Note: Students seeking credit for fluency or high functional competency in a second language must consult with the Coordinator/Administrator for the Global Studies program to discuss how they can obtain credit. Functional competency can be established through the Prior Learning Assessment Recognition (PLAR) process, or through the establishment of an assessment method whereby students can demonstrate competency. Students who are successful will not receive academic credit, but this program requirement will be considered to have been met. Students using these assessment methods will be required to pay fees for evaluation.
Eligible Language courses offered at the University of Saskatchewan include (but are not limited to):

- ARBC 114.3 Beginning Arabic I
- ARBC 117.3 Beginning Arabic II
- CHIN 114.3
- CHIN 117.3
- CHIN 216.3
- CHIN 218.3
- CREE 101.6
- CREE 110.3 Nehiyawetan Let Us Speak Cree
- FREN 103.3
- FREN 106.3
- FREN 122.3
- FREN 125.3
- FREN 205.3 The Sounds and word system of contemporary French
- FREN 212.3
- FREN 213.3 Introduction to Translation from English into French
- FREN 214.3 Beginner French English Translation
- FREN 218.3
- FREN 314.3 Advanced French English Translation
- GERM 114.3
- GERM 117.3
- GERM 202.3
- GERM 204.3
- GERM 214.3
- GERM 217.3
- GRK 112.3
- GRK 113.3
- HEB 114.3
- HEB 117.3
- HNDI 114.3 Introductory Hindi I
- HNDI 117.3 Introductory Hindi II
- JPNS 114.3 Introductory Japanese I
- JPNS 117.3 Introductory Japanese II
- JPNS 214.3 Intermediate Japanese I
- JPNS 217.3 Intermediate Japanese II
- LATN 112.3
- LATN 113.3
- LATN 202.3 Intermediate Latin I
- LATN 203.3 Intermediate Latin II
- LATN 403.3 Senior Latin
- RUSS 114.3
- RUSS 117.3
- RUSS 214.3
- RUSS 217.3
- SNSK 114.3
- SNSK 117.3
- SPAN 114.3
- SPAN 117.3
- SPAN 202.3
- SPAN 204.3
- SPAN 214.3
• SPAN 217.3
• SPAN 314.3 Advanced Spanish I
• SPAN 317.3 Advanced Spanish II
• SPAN 235.3 Advanced Spanish Writing I
• UKR 114.3
• UKR 117.3
• UKR 214.3
• UKR 217.3

9 credit units from Clusters A, B, C, D:

Students may receive permission to count comparable courses, subject to approval by the Global Studies Program Director/Administrator.

Note: Students cannot use more than 6 credit units from any single cluster toward this requirement.

**Cluster A: Global Systems and Dynamics**

• ANTH 244.3 Political Ecology Anthropology and Global Environmental Issues
• ANTH 310.3 Anthropology of Gender
• ANTH 339.3 Cultural Change, Globalization and Development
• ARCH 330.3 The Archaeology of Human Environmental Impact
• ECON 245.3 International Trading System
• ECON 256.3 International Monetary System
• ECON 270.3
• ECON 272.3
• ECON 354.3 International Trade and Commercial Policy
• ECON 356.3 International Monetary Economics
• ECON 414.3 Economic Growth
• ENVS 201.3 Sustainability Foundations
• ENVS 401.3 Sustainability in Action
• GEOG 208.3
• GEOG 333.3 Global climate Change
• GEOL 206.3 Earth Systems
• GEOL 330.3 Climate History
• HIST 125.3 History Matters Indigenous Colonial and Post colonial Histories
• HIST 241.3 Angloalization Britain and its Empires 1700 to 2000
• HIST 145.3 History Matters War Violence and Politics
• HIST 155.3 History Matters Science and Environment
• HIST 272.3 Human Rights in History
• HIST 281.6
• HIST 290.3
• HIST 291.6
• HIST 292.3
• HIST 293.3
• HIST 294.3 International and Global History
• HIST 388.3
• HIST 445.3 British Cities Empire and Global Environmental Change
• HIST 453.3 Decolonization in the Postcolonial World
• HIST 478.3
• HIST 488.3
• INDG 320.3 Transnational Indigenous Activism
Cluster B: Area and Sectoral Studies

Area Studies

- GEOG 150.3
- GEOG 340.3
- GEOG 351.3
- HIST 122.3
- HIST 170.6
- HIST 220.6
- HIST 263.6
- HIST 267.3
- HIST 268.3
- HIST 277.3
- HIST 278.3
- HIST 274.3
- HIST 275.3
- HIST 375.3
- HIST 471.6
- POLS 244.3
- POLS 245.3
- POLS 253.3
- POLS 254.3
• POLS 326.3
• POLS 342.3
• POLS 343.3
• POLS 368.3
• POLS 375.3
• POLS 379.3
• POLS 385.3
• POLS 446.3

**Sectoral Studies**

• ANTH 226.3
• ANTH 231.3
• ANTH 329.3
• CHEP 402.3
• CHEP 412.3
• ECON 277.3
• GEOG 120.3
• GEOG 125.3
• HIST 386.3
• PHIL 226.3
• PHIL 235.3
• PHIL 236.3
• POLS 448.3
• SOC 204.3

*(Merged list with additions in red.)*

• ANTH 226.3
• ANTH 231.3
• ANTH 329.3
• ARTH 120.3 Art and Visual Culture I
• ARTH 121.3 Art and Visual Culture I
• CHEP 402.3
• CHEP 412.3
• CMRS 405.3 Texts and Materials of Early European Cultures
• ECON 264.3 Chinese Economic Development
• ECON 277.3
• ECON 314.3 Development Economics
• ENG 290.6 Intro to English Linguistics and history of the English Language
• ENG 383.3 Reading Colonialism
• ENG 444.3 Topics in Commonwealth and Post Colonial Literature
• ENVE 432.3 Soil and Water Conservation
• FREN 235.3 Theatre in Paris *study abroad*
• GEOG 120.3
• GEOG 125.3
• GEOG 150.3
• GEOG 340.3
• GEOG 351.3
• GEOG 352.3 Contemporary Issues of the Circumpolar World I
• GEOG 380.3 Environmental Geography of the Circumpolar North
• HIST 122.3
• HIST 170.6
• HIST 220.6
• HIST 263.6
• HIST 267.3
• HIST 268.3
• HIST 274.3
• HIST 275.3
• HIST 277.3
• HIST 278.3
• HIST 286.3 Modern China from Qing dynasty to the Present
• HIST 375.3
• HIST 386.3
• HIST 387.3 Eugenics Birth Control and Venereal Disease in Republican China and the Global Context
• HIST 389.3 The Israeli Palestinian Conflict
• HIST 471.6
• HIST 472.3 United States and the Middle East
• INDG 272.3 Native American USA
• INDG 273.3 North American Indigenous Gangs A Comparison of Canada and the United States
• INDG 471.3 Indigenous Women Feminism Politics and Resistance
• LAW 457.3 International Law
• PHIL 226.3
• PHIL 235.3
• PHIL 236.3
• PHIL 239.3 Pacifism and the Possibility of Just Wars
• POLS 244.3
• POLS 245.3
• POLS 249.3 American Government and Politics
• POLS 253.3
• POLS 254.3
• POLS 263.3 The Politics of International Law
• POLS 326.3
• POLS 341.3 Asian Government and Politics
• POLS 342.3
• POLS 343.3
• POLS 368.3
• POLS 375.3
• POLS 379.3
• POLS 385.3
• POLS 446.3
• POLS 448.3
• RRM 114.3 Introductory Resource Economics and Policy
• SOC 204.3
• SOC 260.3 Social Change and Global Solidarity
• SOC 310.3 White Collar and Corporate Crime in the Global Context

**Cluster C: People and Cultures**

• ANTH 227.3
• ANTH 230.3
• ANTH 233.3
• ANTH 235.3
- ANTH 310.3
- ANTH 311.3
- ANTH 354.3 Ritual Spaces in Ukrainian Culture
- ARTH 261.3
- ARTH 323.3
- ARTH 325.3
- ARTH 329.3
- ARTH 358.3
- CMRS 110.3 The Graeco Roman Tradition Evolution and Reception
- DRAM 285.3
- DRAM 286.3
- ENG 206.3 An Introduction to Cultural Studies
- ENG 207.3
- ENG 209.3
- ENG 338.3 Contemporary North American Indigenous Literatures
- ENG 381.3 American Literature from 1990 to the Present
- FREN 252.3 Culture and Society in France
- GEOG 130.3
- HIST 175.3 History Matters Identities and Communities in Transition
- HIST 234.3 Europe from 1870 to 1939 War Politics and Culture in Modern Mass Society
- HIST 235.3 Europe since 1939 From the Second World War to the Creation of the European Union and Beyond
- HIST 260.3
- HIST 264.3
- HIST 265.3
- HIST 266.3
- HIST 279.3 The Middle east in the 20th century
- HIST 303.3
- HIST 384.3
- HIST 434.3
- INDG 210.3 Indigenous Ways of Knowing
- INDG 221.3
- INDG 370.3 Images of Indigenous North America
- INDG 373.3 Indigenous Masculinities in the Global Context
- JPNS 233.3 Popular Culture and Cinema in Japan
- LING 244.3
- LING 247.3
- LING 250.3 World Englishes
- LING 251.3 Intercultural Communication
- LING 253.3
- LING 346.3
- LING 402.3
- LING 404.3
- NUTR 310.3
- PHIL 133.3
- PHIL 231.3
- PHIL 237.3
- PHIL 302.3
- PSY 224.3
- PSY 380.3
- RLST 111.3
- RLST 112.3
- RLST 113.3
- RLST 211.3 Introduction to Hinduism
- RLST 214.3 Introduction to Philosophies of India
- RLST 215.3 Indian Yoga Heritage
- RLST 216.3 Religion and Politics on Film
- RLST 217.3 Buddhist Religious Tradition
- RLST 218.3 Developments in Buddhist Thought
- RLST 219.3 Bible and Western Culture
- RLST 220.3 Women in Western Religious Traditions
- RLST 231.3 Confucianism continuity and change
- RLST 233.3
- RLST 234.3 Chinese Religions
- RLST 235.3 Japanese Religions
- RLST 241.3 Islam in the Modern World
- RLST 243.3 Islam in Hollywood
- RLST 258.3 Religion and Culture in Bollywood Film
- RLST 284.3 Religions and Non Violence
- RLST 285.3
- RLST 377.3 Living Community Solidarity and Social Change
- RRM 312.3 Natural Resource Management and Indigenous Peoples
- SOC 205.3
- SOC 344.3
- SPAN 235.3 Mexican Culture (offered in Guadalajara)
- SPAN 250.3 Historical trends of the Spanish Language (taught in English)
- SPAN 251.3 The Spanish of Latin Americans (taught in English)
- WGST 315.3

**Cluster D: Languages**

*Note: Courses counted in this cluster may not also be used to meet the language requirements of the Certificate in Global Studies.*

**Arabic**

- ARBC 114.3 Beginning Arabic I
- ARBC 117.3 Beginning Arabic II

**Chinese**

- CHIN 114.3
- CHIN 117.3
- CHIN 216.3
- CHIN 218.3
- Any other approved course in Chinese (courses taught in English will not meet this requirement)

**Cree**

- CREE 101.6 Introductory Cree
- CREE 110.3 Nehiyawetan Let Us Speak Cree
French

- FREN 103.3
- FREN 106.3
- FREN 122.3
- FREN 125.3
- FREN 205.3 The Sounds and word system of contemporary French
- FREN 212.3
- FREN 213.3 Introduction to Translation from English into French
- FREN 214.3 Beginner French English Translation
- FREN 218.3
- FREN 314.3 Advanced French English Translation
- Any other approved course in French (courses taught in English will not meet this requirement)

German

- GERM 114.3
- GERM 117.3
- GERM 202.3
- GERM 204.3
- GERM 214.3
- GERM 217.3
- Any other approved course in German (courses taught in English will not meet this requirement)

Hebrew

- HEB 114.3 Introduction to Hebrew I
- HEB 117.3 Introduction to Hebrew II

Hindi

- HNDI 114.3 Introductory Hindi I
- HNDI 117.3 Introductory Hindi II

Latin

- LATN 112.3 Latin for Beginners I
- LATN 113.3 Latin for Beginners II
- LATN 202.3 Intermediate Latin I
- LATN 203.3 Intermediate Latin II
- LATN 403.3 Senior Latin

Russian

- RUSS 114.3
- RUSS 117.3
- RUSS 214.3
- RUSS 217.3
- Any other approved course in Russian (courses taught in English will not meet this requirement)
Japanese

- JPNS 114.3 Introductory Japanese I
- JPNS 117.3 Introductory Japanese II
- JPNS 214.3 Intermediate Japanese I
- JPNS 217.3 Intermediate Japanese II

Spanish

- SPAN 114.3
- SPAN 117.3
- SPAN 202.3
- SPAN 204.3
- SPAN 214.3
- SPAN 217.3
- SPAN 314.3 Advanced Spanish I
- SPAN 317.3 Advanced Spanish II
- SPAN 325.3 Advanced Spanish Writing I *only offered through Guadalajara term abroad*
- Any other approved course in Spanish (courses taught in English will not meet this requirement)

Ukrainian

- UKR 114.3
- UKR 117.3
- UKR 214.3
- UKR 217.3
- Any other approved course in Ukrainian (courses taught in English will not meet this requirement)

Important Notes

Note: Students admitted to the College of Agriculture and Bioresources may use the following courses in Cluster B, only. Students admitted to Arts & Science will not receive credit for these courses, toward this certificate, nor for other Arts & Science programs.

- AREC 272.3 Intro to Agricultural economics
- AREC 356.3 The Economics of International Argibusiness
- PLSC 333.3 Tropical Crops of the World
- PLSC 408.3 Global Plant Genetic Resources

Note: Students admitted to the College of Education may use the following courses in Cluster B, only. Students admitted to Arts & Science will not receive credit for these courses, toward this certificate, nor for other Arts & Science programs.

- ECUR 291.3 Introduction to Teaching English as a Second Language
- ECUR 362.3 Introduction to Principles and Practices of Secondary Language Teaching
- ECUR 393.3 Advanced Methods in Teaching English as a Second Language
- EFDT 422.3 Critical Intersecting Anti-racist Pedagogy
- EFDT 435.3
• EFDT 436.3
• EFDT 454.3

Note: Students admitted to the College of Engineering may use the following courses in Cluster B, only. Students admitted to Arts & Science will not receive credit for these courses, toward this certificate, nor for other Arts & Science programs.

• CE 464.3 Water and Resource Engineering

Note: Students admitted to the College of Kinesiology may use the following courses in Cluster B, only. Students admitted to Arts & Science will not receive credit for these courses, toward this certificate, nor for other Arts & Science programs.

• KIN 223.3 Contemporary Health Issues

Note: Students admitted to the College of Law only may use the following courses in Cluster B, only. Students admitted to Arts & Science will not receive credit for these courses, toward this certificate, nor for other Arts & Science programs.

• LAW 304.3 Immigration Law
• LAW 308.3 Global Indigenous Rights and Resource Development
• LAW 402.3
• LAW 406.3
• LAW 432.3 Human Rights
• LAW 459.3 Jessup Moot
• LAW 480.3
• LAW 485.3

Note: Students admitted to the College of Medicine in the Certificate in Global Health Program may use the following courses in Cluster B, only. Students admitted to Arts & Science will not receive credit for these courses, toward this certificate, nor for other Arts & Science programs.

• CHEP 415.3 International Practicum
• CEHP 403.3 Global Health II

Note: Students admitted to the College of Nursing in the B.S.N. program or the Post-Degree B.S.N. option may use the following courses in Cluster B, only. Students admitted to Arts & Science will not receive credit for these courses, toward this certificate, nor for other Arts & Science programs.

• NURS 201.3 Perspective on Health Wellness and Diversity in a Global Context
• NURS 430.3 Community Health Nursing Building Partnerships

Rationale:
1. Deletion of courses that the home department has confirmed will no longer be offered. The Department of Languages and Cultural Studies has confirmed that Russian classes are no longer offered.
2. Removal of the distinction between ‘area study' and 'sectoral study' courses within cluster B of the certificate. Removing the distinction is a non-substantive change that simply clarifies the requirements of the certificate for students.
3. Addition of a point of clarification regarding the language requirement: “Note: Students cannot count the 3 credits used to fulfill the language requirement towards the 9 credit units required from Clusters A,B,C,D.” This point will ensure clear communication of program requirements to students and advisors.
4. Addition of internationally-focused, restricted-elective courses. The addition of these new electives will strengthen the certificate by making the program more interdisciplinary in nature, thus
fostering discussion between a wider range of students coming from a variety of academic backgrounds. The inclusion of a greater variety of elective classes within the clusters that meet the certificate objectives will highlight to students the international specializations within their disciplines, and will therefore encourage students from a variety of disciplinary backgrounds to consider completing the certificate. The certificate design requires students to complete three mandatory classes (IS 110, IS 201, IS 202) and to complete courses from more than one cluster, thereby exposing students to a more multidisciplinary engagement with global issues. This will advance the internationalization goals of the college and the university.

To ensure clarity for students, courses that cannot be taken by Arts and Science students have been listed separately in a 'Important Notes' section to emphasize that these courses can only be taken by students in the indicated college/program. Each course proposed for addition has been approved by the relevant department, and we have worked with each departments to determine the most suitable cluster (see below for cluster descriptions) to situate each course within the Certificate of Global Studies. Specific justification for each course added is available. Please contact Alexis Dahl (alexis.dahl@usask.ca) for a copy of this information.

**Indigenous Studies**

**Minor program revisions**
Replace INDG 350.6 with INDG 252.3 and one of INDG 351.3 or INDG 352.3
Increase the number of 300-level credits by 3.
B.A. 4-year: change B6 major requirements to 36 credits (from 33) and change B7 elective requirements to 48 credits (from 51)
B.A. 3-year: change B6 major requirements to 30 credits (from 27) and change B7 elective requirements to 24 credits (from 27)
B.A. Honours: change B6 major requirements to 48 credits (from 45) and change B7 elective requirements to 36 credits (from 39)
B.A. Double Honours - Major 1: change B6 major requirements to 39 credits (from 36)
B.A. Double Honours - Major 2: change B6 major requirements to 42 (from 39)

**Bachelor of Arts Four-year (B.A. Four-year) - Indigenous Studies**

**B6 Major Requirement (33 36 credit units)**

- INDG 252.3
- INDG 261.3
- INDG 262.3
- INDG 264.3
- INDG 350.6

Choose 3 credit units from the following:

- INDG 351.3
- INDG 352.3

Choose 6 credit units from the following:

- [200-Level INDG Courses](#)

Choose 6 9 credit units from the following:

- [300-Level INDG Courses](#)
Choose **6 credit units** from the following:

- **400-Level INDG Courses**

It is recommended that Indigenous Studies majors take a further 18 credit units in Indigenous Studies and concentrate the required balance of credit units by taking a minor in another Arts & Science program.

**B7 Electives Requirement (54-48 credit units)**

**Bachelor of Arts Three-year (B.A. Three-year) - Indigenous Studies**

**B6 Major Requirement (27 credit units)**

- INDG 252.3
- INDG 261.3
- INDG 262.3
- INDG 264.3
- INDG 350.6

Choose 3 credit units from the following:

- INDG 351.3
- INDG 352.3

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

- **200-Level or 300-Level INDG Courses**
- Minimum **3-6 credit units** from 300-level INDG courses

It is recommended that Indigenous Studies majors concentrate the required balance of credit units for the B.A. Three-year to complete a minor in another Arts & Science program.

**B7 Electives Requirement (27-24 credit units)**

**Bachelor of Arts Honours (B.A. Honours) - Indigenous Studies**

**B6 Major Requirement (45-48 credit units)**

- INDG 252.3
- INDG 261.3
- INDG 262.3
- INDG 264.3
- INDG 350.6

Choose 3 credit units from the following:

- INDG 351.3
- INDG 352.3
Choose **6 credit units** from the following:

- **200-Level INDG Courses**

Choose **42 15 credit units** from the following:

- **300-Level INDG Courses**

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

- **400-Level INDG Courses**

It is recommended that Indigenous Studies Honours students take a further 12 credit units in Indigenous Studies and concentrate the required balance of credit units by taking a minor or a double honours in another Arts & Science program.

**B7 Electives Requirement (39 36 credit units)**

**Bachelor of Arts Double Honours - Indigenous Studies - Major 1**

**B6 Major Requirement (36 39 credit units)**

- **INDG 252.3**
- **INDG 261.3**
- **INDG 262.3**
- **INDG 264.3**
- **INDG 350.6**

Choose 3 credit units from the following:

- **INDG 351.3**
- **INDG 352.3**

Choose **9 12 credit units** from the following:

- **300-Level INDG Courses**

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

- **400-Level INDG Courses**

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

- **200-Level, 300-Level or 400-Level INDG Courses**

**B7 Electives Requirement (48 45 credit units)**
Double Honours - Indigenous Studies - Major 2
Requirements (39-42 credit units)

- INDG 252.3
- INDG 261.3
- INDG 262.3
- INDG 264.3
- INDG 350.6

Choose 3 credit units from the following:

- INDG 351.3
- INDG 352.3

Choose 3 credit units from the following:

- 100-Level INDG Courses

Choose 9-12 credit units from the following:

- 300-Level INDG Courses

Choose 6 credit units from the following:

- 400-Level INDG Courses

Choose 6 credit units from the following:

- 200-Level, 300-Level or 400-Level INDG Courses

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

Rationale: Like many departments, we are moving away from 6cu courses as we find them a barrier to student enrolment, and in our case specifically, to attracting and maintaining majors (who need this 6cu course for their degree). We hope by offering a suite of options at the 300-level, we will attract more students and speak more broadly to their varied research interests. We also find that students are not taking our current methods course until their last year, and we hope by offering a 200-level course that is a prerequisite for the 300-level methods courses, we will be able to get them into these courses earlier in their program.

Because we are removing our 6cu 300-level methods course and replacing it with one 200-level and one 300-level, we felt our students needed an extra 300-level course overall for their degree requirements. We have therefore added an additional 3cu. at the 300-level to the B6 major requirement credit unit amount, and have reduced by the same at the B7 elective credit unit amount.

Course deletions(s):
INDG 350.6 Indigenous Studies Research Methods
Rationale: The Department of Indigenous Studies is proposing to eliminate INDG 350.6 - Indigenous Studies Research as a requirement for our program. We are replacing this requirement with the newly approved INDG 252.3 - Introduction to Indigenous Studies Research Methods and 1 of a variety of 3cu 300-level methods courses (some which are currently approved including INDG 352.3 - Historical Research in Indigenous Studies and INDG 351.3 - Indigenous Oral History Research). Students will still be required to take 6 credit units in methods for their degree requirements.
Like many departments, Indigenous Studies is moving away from 6 credit unit courses as we find them a barrier to student enrolment, and in our case specifically, to attracting and maintaining majors (who currently need INDG 350.6 course for their degree). We hope by offering a suite of options at the 300-level, we will attract more students and speak more broadly to their varied research interests. We also find that students are not taking our current methods course until their last year, and we hope by offering a 200-level course that is a prerequisite for the 300-level methods courses, we will be able to get them into these courses earlier in their program.

**International Studies**

**Minor program revisions**

**Bachelor of Arts Honours and Four-year in International Studies**

Update the lists of language courses in B4 and B6 to remove Russian and add Chinese and Japanese.

**Bachelor of Arts (B.A. Four-year) - International Studies**

**B4 Language Requirement (6 credit units)**

Choose 6 credit units in ONE modern language other than English: Chinese, French, German, Japanese, Russian, Spanish, Ukrainian; or a language approved by the Program Coordinator. These courses must be taught in the subject language (not in English). It is recommended that students take additional language courses.

Note: International Studies requires a total of 12 credit units in one modern language other than English – see also requirement B6 below.

**Chinese**

Please note that CHIN 233.3 is not acceptable for credit toward this requirement.

- **100-Level, 200-Level, 300-Level or 400-Level CHIN Courses**

**French**

Please note that FREN 216.3 is not acceptable for credit toward this requirement.

- **100-Level, 200-Level, 300-Level or 400-Level FREN Courses**

**German**

Please note that GERM 260.3, GERM 265.3, and GERM 266.3 are not acceptable for credit toward this requirement.

- **100-Level, 200-Level, 300-Level or 400-Level GERM Courses**

**Japanese**

Please note that JPNS 233.3 is not acceptable for credit toward this requirement.

- **100-Level, 200-Level, 300-Level or 400-Level JPNS Courses**
Russian

Please note that RUSS 210.3 and RUSS 234.3 are not acceptable for credit toward this requirement.

- 100-Level, 200-Level, 300-Level or 400-Level RUSS Courses.

Spanish

Please note that SPAN 250.3, SPAN 251.3, SPAN 309.3, and SPAN 310.3 are not acceptable for credit toward this requirement.

- 100-Level, 200-Level, 300-Level or 400-Level SPAN Courses.

Ukrainian

- 100-Level, 200-Level, 300-Level or 400-Level UKR Courses

B6 Major Requirement (60 credit units)

- ECON 254.3
- GEOG 208.3
- HIST 292.3
- HIST 293.3
- IS 211.3
- IS 212.3
- IS 401.3
- IS 402.3
- POLS 256.3 or SOC 232.3
- POLS 261.3
- POLS 262.3

Modern Language

Choose 6 credit units in ONE modern language other than English. The language chosen must be the same language used to meet requirement B4 above. These courses must be taught in the subject language (not in English). Students may choose one of the languages listed below or another language approved by the Program Coordinator.

Chinese

Please note that CHIN 233.3 is not acceptable for credit toward this requirement.

- 100-Level, 200-Level, 300-Level or 400-Level CHIN Courses

French

Please note that FREN 216.3 is not acceptable for credit toward this requirement.

- 100-Level, 200-Level, 300-Level or 400-Level FREN Courses
German

Please note that GERM 260.3, GERM 265.3, and GERM 266.3 are not acceptable for credit toward this requirement.

- 100-Level, 200-Level, 300-Level or 400-Level GERM Courses

Japanese

Please note that JPNS 233.3 is not acceptable for credit toward this requirement.

- 100-Level, 200-Level, 300-Level or 400-Level JPNS Courses

Russian

Please note that RUSS 210.3 and RUSS 234.3 are not acceptable for credit toward this requirement.

- 100-Level, 200-Level, 300-Level or 400-Level RUSS Courses

Spanish

Please note that SPAN 250.3, SPAN 251.3, SPAN 309.3, and SPAN 310.3 are not acceptable for credit toward this requirement.

- 100-Level, 200-Level, 300-Level or 400-Level SPAN Courses

Ukrainian

- 100-Level, 200-Level, 300-Level or 400-Level UKR Courses

Choose 21 credit units from the following:

At least 6 credit units must be at the 300-level or above.

- ANTH 227.3
- ANTH 231.3
- ...
- WGST 411.3
- One of PSY 379.3 or SOC 379.3 or ECON 379.3 or GEOG 379.3 or POLS 379.3 or ANTH 379.3
- One of POLS 383.3 or POLS 384.3 or ECON 387.3 or SOSC 320.6 or POLS 482.6

Bachelor of Arts (B.A. Honours) - International Studies

B4 Language Requirement (6 credit units)

Choose 6 credit units in ONE modern language other than English: French, German, Russian, Spanish, Ukrainian; or a language approved by the Program Coordinator. These courses must be taught in the subject language (not in English). It is recommended that students take additional language courses.

Note: International Studies requires a total of 12 credit units in one modern language other than English – see also requirement B6 below.
Chinese

Please note that CHIN 233.3 is not acceptable for credit toward this requirement.

- 100-Level, 200-Level, 300-Level or 400-Level CHIN Courses.

French

Please note that FREN 216.3 is not acceptable for credit toward this requirement.

- 100-Level, 200-Level, 300-Level or 400-Level FREN Courses.

German

Please note that GERM 260.3, GERM 265.3, and GERM 266.3 are not acceptable for credit toward this requirement.

- 100-Level, 200-Level, 300-Level or 400-Level GERM Courses.

Japanese

Please note that JPNS 233.3 is not acceptable for credit toward this requirement.

- 100-Level, 200-Level, 300-Level or 400-Level JPNS Courses.

Russian

Please note that RUSS 210.3 and RUSS 234.3 are not acceptable for credit toward this requirement.

- 100-Level, 200-Level, 300-Level or 400-Level RUSS Courses.

Spanish

Please note that SPAN 250.3, SPAN 251.3, SPAN 309.3, and SPAN 310.3 are not acceptable for credit toward this requirement.

- 100-Level, 200-Level, 300-Level or 400-Level SPAN Courses.

Ukrainian

- 100-Level, 200-Level, 300-Level or 400-Level UKR Courses.

B6 Major Requirement (63 credit units)

- ECON 254.3
- GEOG 208.3
- HIST 292.3
- HIST 293.3
- IS 211.3
- IS 212.3
• IS 401.3
• IS 402.3
• POLS 256.3 or SOC 232.3
• POLS 261.3
• POLS 262.3

Modern Language

Choose 6 credit units in ONE modern language other than English. The language chosen must be the same language used to meet requirement B4 above. These courses must be taught in the subject language (not in English). Students may choose one of the languages listed below or another language approved by the Program Coordinator.

Chinese

Please note that CHIN 233.3 is not acceptable for credit toward this requirement.

• 100-Level, 200-Level, 300-Level or 400-Level CHIN Courses.

French

Please note that FREN 216.3 is not acceptable for credit toward this requirement.

• 100-Level, 200-Level, 300-Level or 400-Level FREN Courses.

German

Please note that GERM 260.3, GERM 265.3, and GERM 266.3 are not acceptable for credit toward this requirement.

• 100-Level, 200-Level, 300-Level or 400-Level GERM Courses.

Japanese

Please note that JPNS 233.3 is not acceptable for credit toward this requirement.

• 100-Level, 200-Level, 300-Level or 400-Level JPNS Courses.

Russian

Please note that RUSS 210.3 and RUSS 234.3 are not acceptable for credit toward this requirement.

• 100-Level, 200-Level, 300-Level or 400-Level RUSS Courses.

Spanish

Please note that SPAN 250.3, SPAN 251.3, SPAN 309.3, and SPAN 310.3 are not acceptable for credit toward this requirement.

• 100-Level, 200-Level, 300-Level or 400-Level SPAN Courses.
Ukrainian

- 100-Level, 200-Level, 300-Level or 400-Level UKR Courses

Choose **24 credit units** from the following:

At least 6 credit units must be at the 400-level or above.

- ANTH 227.3
- ANTH 231.3
- ...
- WGST 411.3
- One of PSY 379.3 or SOC 379.3 or ECON 379.3 or GEOG 379.3 or POLS 379.3 or ANTH 379.3
- One of POLS 383.3 or POLS 384.3 or ECON 387.3 or SOSC 320.6 or POLS 482.6

Rationale: Adding Chinese and Japanese classes to the both the B4 and B6 Requirements will provide students with a greater selection of courses to choose from. The Russian classes are being removed from both the B4 and B6 Requirements as they are no longer offered.

Linguistics

**Minor program revisions**

**Bachelor of Arts Honours, Four-year and Three-year in Linguistics**

Add LING 110 and 113 (see below) as options to LING 112 in B1

Add LING 112 and 113 as options in B6 in all programs except the Language and Speech Sciences Stream.

**Bachelor of Arts Four-year (B.A. Four-year) - Linguistics - General and Applied Linguistics Stream**

B1 Basic Social Science Requirement (12 credit units)

- LING 111.3
- One of LING 110.3, LING 112.3, or LING 113.3

*No additional changes in B1.*

**B6 Major Requirement (36 credit units)**

No more than 6 credit units at the 100-Level may be used to satisfy the Major Requirements.

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

- 200-Level, 300-Level or 400-Level LING Courses
- **LING 110.3** (The 100-level LING courses are included as options, not required courses.) LING 110 is one of the LING options, not a required course.
- LING 112.3
- LING 113.3
Choose 15 credit units from the following:

Linguistics
Language
English
Computer Science
Psychology
Anthropology
Communication
Philosophy
Women's and Gender Studies
Classics
Religious Studies

Bachelor of Arts Four-year (B.A. Four-year) - Linguistics - Language and Speech Sciences Stream
B1 Basic Social Science Requirement (12 credit units)

- LING 111.3
- One of LING 110.3, LING 112.3, or LING 113.3

No additional changes in B1.

Bachelor of Arts Three-year (B.A. Three-year) - Linguistics
B1 Basic Social Science Requirement (12 credit units)

- LING 111.3
- One of LING 110.3, LING 112.3, or LING 113.3

No additional changes in B1.

B6 Major Requirement (30 credit units)

No more than 6 credit units at the 100-Level may be used to satisfy the Major Requirements.

Choose 18 credit units from the following:

- 200-Level, 300-Level or 400-Level LING Courses
- LING 110.3 (The 100-level LING courses are included as options, not required courses.) LING 110 is one of the LING options, not a required course.
- LING 112.3
- LING 113.3

Choose 12 credit units from the following:

Linguistics
Language
English
Computer Science
Psychology
Anthropology
Communication
Bachelor of Arts Honours (B.A. Honours) - Linguistics

B1 Basic Social Science Requirement (12 credit units)

- LING 111.3
- One of LING 110.3, LING 112.3, or LING 113.3

No additional changes in B1.

B6 Major Requirement (48 credit units)

No more than 6 credit units at the 100-Level may be used to satisfy the Major Requirements.

- LING 403.3
- LING 478.3

Choose 21 credit units from the following:

- 200-Level, 300-Level or 400-Level LING Courses
- LING 110.3 (The 100-level LING courses are included as options, not required courses.) LING 110 is one of the LING options, not a required course.
- LING 112.3
- LING 113.3

Choose 21 credit units from the following:

Linguistics
Language
English
Computer Science
Psychology
Anthropology
Communication
Philosophy
Women's and Gender Studies
Classics
Religious Studies

Rationale: LING 110 (Introduction to Grammar) and LING 113.3 (Language Use in the Digital Era - proposed concurrently) will provide students with equivalent preparation as LING 112 (Structure of Language).

New course(s):
LING 113.3 Language Us in the Digital Era
1/2 (3L) Drawing on the examples of language technologies that we use frequently, this course focuses on two aspects of language use in the digital era: What language technologies are available, and how these technologies are shaping our language use (e.g., new communication styles, new semiotic resources, and new genres). This course also offers a window into popular language technologies such as spell and
grammar checkers, automated speech recognition, machine translation, chatbots (e.g., Siri, Alexa), plagiarism detection, and intelligent language learning tutors. This course does not require previous knowledge of programming or computational algorithms.

Instructor(s): Zhi Li

Rationale: This course improves the department’s offerings in the field, reflects the research interests of the instructor and responds to student demands.

Mathematical Physics

Minor program revisions

Bachelor of Science Honours in Mathematical Physics
Add MATH 176 and 177 as alternatives to MATH 110 and 116, respectively, in C4. Replace MATH 301 and 401 with the option of MATH 402.0 or PHYS 491 or PHYS 493; add MATH 164; remove MATH 366; remove EP 421 from the list of additional courses, and add PHYS 456.3 and PHYS 461.3 in C6.

Bachelor of Science Honours (B.Sc. Honours) - Mathematical Physics

C4 Mathematics and Statistics Requirement (6 credit units)

- MATH 110.3 or MATH 176.3
- MATH 116.3 or MATH 177.3

C6 Major Requirement (78 credit units)

- EP 253.1
- EP 370.3
- MATH 164.3
- MATH 238.3
- MATH 266.3
- MATH 276.3
- MATH 277.3
- MATH 301.0
- MATH 331.3
- MATH 339.3
- MATH 352.3
- MATH 366.3
- MATH 371.3
- MATH 379.3
- MATH 401.0
- MATH 402.0 or PHYS 491.3 or PHYS 493.6
- MATH 433.3
- MATH 452.3
- PHYS 231.1
- PHYS 230.1
- PHYS 223.3
- PHYS 252.3
- PHYS 323.3
- PHYS 356.3
- PHYS 371.3
- PHYS 383.3
- PHYS 481.3
- PHYS 490.0
- STAT 241.3
Choose additional credit units from the following:

At least 6 credit units of Physics courses.

- ASTR 411.3
- EP 421.3
- MATH 438.3
- MATH 439.3
- MATH 485.3
- PHYS 402.3
- PHYS 403.3
- PHYS 452.3
- PHYS 456.3
- PHYS 461.3
- PHYS 470.3
- PHYS 482.3
- MATH 498.3 or PHYS 498.3 may, depending upon the topics, be included. Consult the program representatives.

Rationale: Math 164 is proposed to be the prerequisite for MATH 266. This change will help students be on even footing in 266. MATH 366 is proposed to be deleted. (See below.) Math 402.0 (see below), PHYS 491.3 (Physics Research Project) or PHYS 493.6 (Extended Research Project in Physics) each require a written project and an oral presentation. These replace the seminar courses (MATH 301 and 401). This research experience will be helpful for all students looking to enter a graduate program. EP.421 (Advanced Optics) is removed from the list of additional courses and PHYS 456.3 (Electricity and Magnetism II) and PHYS 461.3 (Physics of Plasmas and Fluids) are added, as the PHYS courses are more relevant options. MATH 176 and 177 are equivalent to MATH 110 and 116, respectively.

Mathematics

Minor program revisions
Bachelor of Science Honours, Double Honours, Four-year and Three-year in Mathematics
Four year, Three-year, and Double Honours programs: Add MATH 176 as an option to MATH 110, and add MATH 177 as an option to MATH 177, in C4. Four-year: Add MATH 163 as a required course; add MATH 164 as an option to MATH 266; reduce the restricted electives requirement in C6 from 27 to 24 credit units; add MATH 266 to the restricted electives requirement in C6. Three-year: Add MATH 163 as a required course; add MATH 164 as an option to MATH 266; reduce the restricted electives requirement in C6 from 15 to 12 credit units; add MATH 266 to the restricted electives requirement in C6. Honours: C4: Replace MATH 110 and 116 with MATH 176 and 177; C6: Add MATH 163, 164, 277, 373 and STAT 242; add CMPT 141 as an option to MATH 211; remove MATH 366; replace MATH 301 and 401 with MATH 402. Double Honours (Major 1 and Major 2): Add MATH 163, 164 and 277 as required courses; remove MATH 238 and 366 as required courses; replace MATH 301 and 401 with MATH 402; reduce the restricted electives requirement in C6 from 6 to 3 credit units; add MATH 238 to and remove MATH 277 from the restricted electives requirement in C6. Double Honours in Mathematics and Statistics: Add MATH 163, 164, and 277 as required courses, remove MATH 238 and 366; replace MATH 301 and 401 with MATH 402; reduce the restricted elective requirement in C6 to 9 credit units from 12.
Bachelor of Science Four-year (B.Sc. Four-year) - Mathematics
C4 Mathematics and Statistics Requirement (6 credit units)

- **MATH 110.3** or **MATH 176.3**
- **MATH 116.3** or **MATH 177.3**

**C6 Major Requirement (36 credit units)**

- **MATH 163.3**
- **MATH 225.3** or **MATH 276.3** (Students contemplating Honours should choose MATH 276)
- **MATH 164.3** (formerly MATH 264.3) or **MATH 266.3**
- **STAT 241.3**

Chose the remaining **27 24 credit units** from the following, using the following rules:

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

- **300-Level or 400-Level MATH Courses**
- **300-Level or 400-Level STAT Courses**
- **MATH 211.3** (Students contemplating Honours should take this course)
- **MATH 226.3**
- **MATH 238.3** (Students contemplating Honours should take this course)
- **MATH 258.3**
- **MATH 266.3**
- **MATH 277.3**
- **STAT 242.3**

Bachelor of Science Three-year (B.Sc. Three-year) - Mathematics
C4 Mathematics and Statistics Requirement (6 credit units)

- **MATH 110.3** or **MATH 176.3**
- **MATH 116.3** or **MATH 177.3**

**C6 Major Requirement (24 credit units)**

- **MATH 163.3**
- **MATH 225.3** or **MATH 276.3** (Students contemplating Honours should choose MATH 276)
- **MATH 164.3** (formerly 264.3) or **MATH 266.3**
- **STAT 241.3**

Choose the remaining **15 12 credit units** from the following, using the following rules:

At least 6 credit units must be at the 300-level or higher. In total, at least 15 of the 24 senior credit units required for the major must be designated MATH. Courses in mathematics and statistics at the 200-level other than those listed in this section are not acceptable as part of a major in mathematics.

Students contemplating Honours should take MATH 211 and MATH 238.
- 300-Level or 400-Level MATH Courses
- 300-Level or 400-Level STAT Courses
- MATH 211.3 (Students contemplating Honours should take this course)
- MATH 226.3
- MATH 238.3 (Students contemplating Honours should take this course)
- MATH 258.3
- MATH 266.3
- MATH 277.3
- STAT 242.3

**Bachelor of Science Honours (B.Sc. Honours) - Mathematics**

**C4 Mathematics and Statistics Requirement (6 credit units)**

- MATH 110.3
- MATH 116.3
- MATH 176.3
- MATH 177.3

**C6 Major Requirement (48-54 credit units)**

- MATH 163.3
- MATH 164.3
- MATH 211.3 or CMPT 141.3
- MATH 238.3
- MATH 266.3
- MATH 276.3
- MATH 277.3
- MATH 301.0
- MATH 361.3
- MATH 362.3
- MATH 366.3
- MATH 371.3
- MATH 373.3
- MATH 379.3
- MATH 401.0
- MATH 402.3
- STAT 241.3
- STAT 242.3

Choose the remaining **18-12 credit units** from the following, with at least 6 credit units at the 400-level using the following rules:

- MATH 363.3 and MATH 364.3 are intended primarily for Education students, and are therefore excluded from the list of acceptable courses.

- 300-Level or 400-Level MATH Courses
- 300-Level or 400-Level STAT Courses
- MATH 277.3

**Bachelor of Science Double Honours - Mathematics - Major 1**

**C4 Mathematics and Statistics Requirement (6 credit units)**

- MATH 110.3 or MATH 176.3
- MATH 116.3 or MATH 177.3
C6 Major Requirement (36 credit units)

- MATH 163.3
- MATH 164.3
- MATH 211.3
- MATH 238.3
- MATH 266.3
- MATH 276.3
- MATH 277.3
- MATH 301.0
- MATH 361.3
- MATH 362.3
- MATH 366.3
- MATH 371.3
- MATH 379.3
- MATH 401.0
- MATH 402.0
- STAT 241.3

Choose the remaining 6 3 credit units from the following, using the following rules:

MATH 363.3 and MATH 364.3, are intended primarily for Education students, and are therefore excluded from the list of acceptable courses.

- 300-Level or 400-Level MATH Courses
- 300-Level or 400-Level STAT Courses
- MATH 238.3
- MATH 277.3

Double Honours - Mathematics - Major 2 Requirements (42 credit units)

- MATH 110.3 or MATH 176.3
- MATH 116.3 or MATH 177.3
- MATH 163.3
- MATH 164.3
- MATH 211.3
- MATH 238.3
- MATH 266.3
- MATH 276.3
- MATH 277.3
- MATH 301.0
- MATH 361.3
- MATH 362.3
- MATH 366.3
- MATH 371.3
- MATH 379.3
- MATH 401.0
- MATH 402.0
- STAT 241.3

Choose the remaining 6 3 credit units from the following, using the following rules:
MATH 363.3 and MATH 364.3, are intended primarily for Education students, and are therefore excluded from the list of acceptable courses.

- 300-Level or 400-Level MATH Courses
- 300-Level or 400-Level STAT Courses
- MATH 238.3
- MATH 277.3

Recommended Electives

Computer Science

- CMPT 141.3 or CMPT 116.3 (recommended options)
- CMPT 145.3 or CMPT 117.3 (recommended options)

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

Bachelor of Science Double Honours - Mathematics and Statistics - Majors 1 and 2

C4 Mathematics and Statistics Requirement (6 credit units)

- MATH 110.3 or MATH 176.3
- MATH 116.3 or MATH 177.3

C6 Major Requirement (66 credit units)

- MATH 163.3
- MATH 164.3
- MATH 211.3
- MATH 238.3
- MATH 266.3
- MATH 276.3
- MATH 277.3
- MATH 301.0
- MATH 361.3
- MATH 362.3
- MATH 366.3
- MATH 371.3
- MATH 379.3
- MATH 401.0
- MATH 402.0
- STAT 241.3
- STAT 242.3
- STAT 341.3
- STAT 342.3
- STAT 442.3
- STAT 443.3

Choose 6 credit units from the following:

- STAT 344.3
- STAT 345.3
- STAT 348.3
Choose 3 credit units from the following:

- STAT 346.3
- STAT 349.3

Choose 42 credit units from the following:

MATH 363.3 and MATH 364.3, are intended primarily for Education students, and are therefore excluded from the list of acceptable courses.

- 300-Level or 400-Level MATH Courses
- 300-Level or 400-Level STAT Courses
- MATH 238.3
- MATH 277.3

Rationale:

- MATH 163 is being introduced as a foundational course towards mathematical thinking, which is applicable for all mathematics and statistics students.
- MATH 164 is proposed to be the prerequisite for MATH 266. This change will help students be on even footing in 266.
- MATH 176 and 177 were recently introduced as advanced introductory options, and can meet the requirements for all Mathematics programs.
- Math 402 (Honours Thesis in Mathematics) replaces the seminar courses (301 and 401). This research experience will be helpful for all students looking to enter a graduate program.
- Math 277 is added to the Honours programs and the Double Honours program in Mathematics and Statistics as this course deals with vector calculus that is relevant for higher level study.
- The department is proposing to delete the concentration in Pure Mathematics, and combining relevant content from it with the BSc Honours in Mathematics program to improve the connectivity and efficiency of the program. This change will create a more universal type of degree which is more in line with what graduates of the programs usually need for the next academic step. Many Honours students seek graduate degrees, usually at another institution, and this fact has substantially informed the proposed changes. In particular, we are replacing two years of seminars (301 and 401) with a thesis course (402) that will provide each graduate with research experience.
- Other program revisions reflect the addition of new courses, and other course revisions being made to streamline course offerings and provide students with an improved route through the material.

Delete concentration:

Pure Mathematics (available for students pursuing an Honours program in Mathematics)
The Course and Program Catalogue lists an alternate version of the Honours program in Mathematics, “with a Concentration in Pure Mathematics”. The department no longer wishes to offer this concentration as a separate option, but has revised the Honours program (above) to incorporate relevant content from the concentration into the basic program requirements.
No courses are offered specifically for this concentration, and therefore there will be no impact on course offerings or teaching/TA assignments. Degree Works shows two students currently enrolled in the Bachelor of Science Honours in Mathematics with a Concentration in Pure Mathematics – these students will be allowed to finish the program within ten years of them starting to take courses toward this program.

New course(s):

MATH 163.3 Introduction to Mathematical Reasoning
1/2 (3L-1P) This course provides a broad introduction to the language of Mathematics through the study of logic and proof techniques, sets, functions and relations, integers and counting, complex numbers, and graphs.
Prerequisite(s): Pre-Calculus 30; or Foundations of Mathematics 30; or Mathematics B30 and C30; or 3 credit units of MATH or STAT.
Instructor(s): Faculty in the Department of Mathematics and Statistics
Rationale: This course introduces students to a broad spectrum of both classical and modern mathematical concepts, as well as the understanding and construction of mathematical proofs. The purpose is to equip students with analytical and problem solving skills that are extremely beneficial in mathematics, statistics and other sciences. In particular, this course will help diversify and complement the current first-year course offerings in Mathematics, many of which have a more computational focus. Students can receive credit for this course in addition to all other 100-level MATH credit currently allowed.

MATH 402.0 Honours Thesis in Mathematics
1&2 Students taking an Honours program in Mathematics or a Double Honours program in Mathematics and a second subject are required to submit a written presentation of a topic in mathematics under the supervision of a faculty advisor and deliver a subsequent oral presentation on the topic. Students in Mathematical Physics must enroll in either MATH 402 or PHYS 491 or PHYS 493.
Prerequisite(s): Students must be registered in an Honours or Double Honours program in Mathematical Physics, Mathematics, or Statistics.
Note: Students enrolled in this course are expected to find a faculty advisor for the thesis work from Mathematics & Statistics (or from another unit, with the approval of the Undergraduate Chair for Mathematics & Statistics). The Undergraduate Chair will assist with finding an advisor as necessary.
Primary Instructor(s): Undergraduate Chair in the Department of Mathematics and Statistics (or designate).
Rationale: Many, if not the majority, of our Mathematics Honours students seek to go to graduate schools, frequently at institutions with top-rated mathematics graduate programs and, accordingly, high expectations for our students in terms of mathematical maturity. With this in mind, we are presented with the following dilemma: how should we help our graduate-school bound students prepare for that transition? Broadly speaking, we wish to furnish a new Honours Thesis option (which replaces the previous MATH 301 / 401 Honours Seminars) that exposes students in a limited way to mathematics self-instruction and research and which trains students to present mathematical ideas coherently and correctly in a style that would be acceptable by the standards of the mathematical community-at-large. The skills of analysis and exposition that are honed through the proposed thesis requirement will also be valuable in industry and teaching professions.
Currently, the Honours Seminar (301/401) requires students to engage for a very short period of time with new mathematical ideas (not taught in our undergraduate course offerings). After they dispense with their oral presentation, there is no further burden or motivation to continue engaging with those ideas. The Honours Thesis is expected to be a continual process of learning from September to March, resulting in a moderate-length document (up to 40 pages) of focused and coherent mathematical ideas. We believe that this format offers a more immersive experience, in addition to creating an avenue for exposing students to research interests of Department members. This also responds to student demands for being able to list a thesis as one of their undergraduate accomplishments.
As agreed during Departmental discussions, the Undergraduate Chair in Mathematics & Statistics will be responsible for administering the course and assisting students with finding supervisors in the Department for their self-study toward the thesis.

Course deletion(s):
MATH 301.0 Honours Seminar I
MATH 401.0 Honours Seminar II
Rationale: MATH 301.0 and 401.0 will be replaced by MATH 402.0. See above for details of this revision.

MATH 363.3 Abstract Algebra
Rationale: The department is introducing a new first year course, Math 163 (above). This new course will have some overlap with the first half of Math 363. The latter half of Math 363 has considerable overlap with Math 361. Thus, in our new program, students will take Math 163 and Math 361 in place of Math 363. Overall 163 will provide better support for upper year math courses.
Consultation was undertaken with the College of Education regarding this change, as it is their students who most often take Math 363. The College was in support of our proposal, as they saw the advantage to
having these topics introduced earlier in the program, and with additional support provided in the lab.
Stronger foundations will allow their students to succeed in a wider variety of upper year courses.

**MATH 366.3 Linear Algebra II**  
Rationale: The recent revision of MATH 264 to 164 (for 2018-19), and revisions to MATH 266 (below), remove the need for a 300-level course in this area. Students will be better served by being able to access 164 and 266 earlier in their programs, which will provide them with the necessary preparation for senior MATH courses.

**Minor course revisions**  
**MATH 164.3 Introduction to Linear Algebra**  
Change to Note:  
Old Note: Students with credit for MATH 264 will not receive credit for this course. Students with credit for this course may subsequently take MATH 266.3 for credit. However, students with credit for MATH 266 or MATH 358 may not subsequently take this course for credit. This course may not be included in the courses required in Requirement C4 for degrees in Applied Mathematics, Mathematical Physics, Mathematics or Statistics, or in Requirement C6 for degrees in Mathematical Physics, Mathematics or Statistics.  
New Note: Students with credit for MATH 264 will not receive credit for this course.  
Rationale: Note simplified to reflect changes in MATH 266 (below) and the Mathematics program requirements.

**MATH 211.3 Numerical Analysis**  
Prerequisite change:  
Old prerequisite: MATH 110 and 116  
New prerequisite: MATH 116 or MATH 124 or MATH 177; and MATH 164  
New Note: Students with credit for MATH 116, MATH 124 or MATH 177 will be given a prerequisite waiver to take MATH 164 and MATH 211 concurrently in 2019-20.  
Rationale: Having the linear algebra background and computational experience from MATH 164 will better prepare students for MATH 211. Also, having a linear algebra prerequisite (in addition to calculus prerequisites) will enable MATH 211 to better address the course content in the relevant contexts of both algebra and calculus.

**MATH 238.3 Introduction to Differential Equations**  
New course description: This course introduces students to ordinary differential equations, including elementary existence results, power series solutions, and techniques of solution involving matrix computations. Examples will be drawn from the physical and biological sciences.  
Prerequisite change:  
Old prerequisite: (MATH 110 and 116) or (MATH 121 or MATH 125; and MATH 128) or (MATH 123 and MATH 124).  
New prerequisite: MATH 116 or 124 or 177; and MATH 164  
Change to Note:  
Old Note: Students intending to enter an honours or double honours program are encouraged to take this course.  
New Note: Students who have taken MATH 116, 124, or 177 will be granted a prerequisite waiver to take MATH 164 and MATH 238 concurrently in 2019-20.  
Rationale: MATH 164 is required material for basic concepts in this course. Adding it will improve the expected outcomes for students and reinforce the internal connectivity of our Honours program. MATH 110 and 123 are removed as prerequisites as they are prerequisites for MATH 116 and 124, respectively. MATH 128 has never been offered, so the MATH 121/125 & MATH 128 pathway is not available. The new course description describes the same course in a more efficient and clear manner.

**MATH 266.3 Linear Algebra I**  
New title: **Linear Algebra II**  
Prerequisite change:  
Old prerequisite: (Math 110 and 116) or (Math 121 or Math 125; and Math 128)
New prerequisite: MATH 164
Change to Note:
Old Note: Designed to meet the needs of students majoring or honouring in mathematics, statistics, computer science or one of the natural sciences.
New Note: Students who have credit for MATH 110 and 116 will be granted a prerequisite waiver to take this course concurrently with MATH 164 in 2019-20.
Rationale: Math 164 (Introduction to Linear Algebra) was introduced in 2017-18. The content of MATH 164 makes it a better prerequisite for MATH 266 than courses in calculus. Consultation was undertaken with other programs which include MATH 266 in the requirements. It was determined that the programs either already allow MATH 164 as an alternative to MATH 266 (thus the new prerequisite for 266 is not an issue), or they will be allowing that option in the coming year. Thus, the change will strengthen the department’s programs without adversely affecting other programs on campus.

MATH 276.3 Vector Calculus I
New course description: This course is an introduction to calculus in higher dimensions, including linear transformations between real vector spaces, limits and continuity in R^n using epsilon-delta, the derivative as a linear transformation (including the Jacobian matrix), Newton’s method for functions from R^n to R^n, and the inverse function theorem.
Prerequisite change:
Old prerequisite: (MATH 110 and 116) or (MATH 121 or MATH 125; and MATH 128)
New prerequisite: MATH 110 or 121 or 123 or 125 or 176; and MATH 164
Change to Note:
Old Note: Students intending to enter an Honours or Double Honours program in Mathematics or Statistics are encouraged to take this course. Students with credit for MATH 223 or 225 may not take this course for credit.
New Note: Students who have taken MATH 110, 121, 125 or 176 will be granted a prerequisite waiver to take MATH 164 and MATH 276 concurrently in 2019-20.
Rationale: The new course description reflects a successful approach to this course that has developed in the past three years. The new prerequisite (MATH 164) reflects the need for linear algebra to teach basic concepts in this course effectively, improving the expected outcome for students and reinforcing the internal connectivity of our Honours programs. We are removing MATH 116 and its equivalencies from the prerequisite list because (a) one-dimensional integral calculus is not actually used in 276 and (b) we have an expression of interest from Computer Science in having a vector calculus course open to their students that does not have 116 or its equivalencies as a prerequisite. In the interest of fostering more interaction between our students and theirs, we are happy to make this change.

MATH 277.3 Vector Calculus II
New course description: A continuation of MATH 276, this course introduces students to Taylor series for functions from R^n to R^m and higher derivatives of functions from R^n to R^m; inner products, critical points and their classification; constrained optimization through Lagrange multipliers; and integration via differential forms leading to Stokes’ Theorem.
Prerequisite change:
Old prerequisite: MATH 276 (or MATH 225 with a grade of 80% or better).
New prerequisite: MATH 116 or 124 or 177; and MATH 276
New Note: Students who have taken MATH 225 (with a grade of 80% or higher) will be granted a prerequisite waiver to take MATH 277 in 2019-20.
Rationale: The new course description above reflects a successful approach to teaching this course that has developed over the past three years. A parallel proposed change to the prerequisites for MATH 276 (MATH 116 and its equivalent removed from the prerequisites) means that MATH 116 or its equivalent will now be required as a prerequisite for 277.
Modern Languages

Minor program revisions
Bachelor of Arts Four-year and Three-year in Modern Languages

The following revisions are proposed:

1. Remove German as a primary language option.
2. Add Arabic and Japanese as secondary language options.
3. Remove Russian as a secondary language option.
4. Remove 200-level LIT courses as options in A1 (Four-year program only).
5. Remove requirement for 3 credit units of LIT in A6 (Four-year program only).

Bachelor of Arts Four-year (B.A. Four-year) - Modern Languages

A1 Basic Humanities Requirement (minimum 12 credit units)

Choose 6 credit units from the following:

- LIT 110.3 (recommended)
- LIT 111.3 (recommended)
- LIT 261.3
- LIT 262.3
- LIT 263.3
- LIT 264.3

Choose 6 credit units from the following:

- ARBC 114.3
- ARBC 117.3
- ...
- UKR 117.3
- WGST 112.3

Any senior-level humanities course provided that the prerequisite is met and not more than 6 credit units in one subject are used for the Humanities or Languages Requirements.

Certain WGST courses may be considered a Humanities and/or Social Science.

Refer to the course descriptions. CLAS 103.3, CLAS 104.3, CLAS 105.3, and CLAS 203.3 may not be used to fulfill the Humanities requirement.

A2 Language Requirement (9 credit units)

Choose 6 credit units taught in the primary language:

- FREN 103.3
- FREN 106.3
- FREN 122.3
- FREN 125.3
- FREN 128.3
- FREN 218.3
- GERM 114.3
- GERM 117.3
- SPAN 114.3
- SPAN 117.3
Choose 3 credit units from the following:

- ARBC 114.3
- ARBC 117.3
- ...
- UKR 114.3
- UKR 117.3

Any senior-level language course provided that the prerequisite is met and not more than 6 credit units in one subject are used for the Humanities or Languages Requirement.

**A6 Major Requirement (48 45 credit units)**

Choose 24 credit units of language, culture, or literature courses taught in the chosen primary language.

**Cultural Courses**

- FREN 251.3
- FREN 252.3
- FREN 272.3
- GERM 202.3
- GERM 204.3
- GERM 266.3
- SPAN 202.3
- SPAN 204.3

**French**

- 200-Level, 300-Level or 400-Level FREN Courses

**German**

*Students who have chosen German as their primary language MUST take German 314 and 317 as part of their major.*

- 200-Level, 300-Level or 400-Level GERM Courses

**Spanish**

Students who have chosen Spanish as their primary language MUST take Spanish 314 and 317 as part of their major.

- 200-Level, 300-Level or 400-Level SPAN Courses

**Linguistics**

Choose 3 credit units from the following:

- 100-Level, 200-Level, 300-Level or 400-Level LING Courses
**Comparative Literature**

Choose 3 credit units from the following:

- LIT 261.3
- LIT 262.3
- LIT 263.3
- LIT 264.3

**Secondary Language**

Choose 6 credit units from the following:

- ARBC 114.3
- ARBC 117.3
- CHIN 114.3
- CHIN 117.3
- CREE 101.6
- GRK 112.3
- GRK 113.3
- HEB 114.3
- HEB 117.3
- JPNS 114.3
- JPNS 117.3
- LATN 112.3
- LATN 113.3

**French**

- [100-Level, 200-Level, 300-Level or 400-Level FREN Courses](#)

**German**

- [100-Level, 200-Level, 300-Level or 400-Level GERM Courses](#)

**Spanish**

- [100-Level, 200-Level, 300-Level or 400-Level SPAN Courses](#)

**Russian**

- [100-Level, 200-Level, 300-Level or 400-Level RUSS Courses](#)

**Ukrainian**

- [100-Level, 200-Level, 300-Level or 400-Level UKR Courses](#)

The department may also recognize language courses taken at other institutions on a case by case basis.

Choose 12 credit units from any of the following areas:
Literature and/or cultural courses taught in the primary language or in English

Cultural Courses

- FREN 251.3
- FREN 252.3
- FREN 272.3
- GERM 202.3
- GERM 204.3
- GERM 266.3
- SPAN 202.3
- SPAN 204.3

French

- 200-Level, 300-Level or 400-Level FREN Courses

German

- 200-Level, 300-Level or 400-Level GERM Courses

Spanish

- 200-Level, 300-Level or 400-Level SPAN Courses

English

- 100-Level, 200-Level, 300-Level or 400-Level ENG Courses

Senior course in a secondary language

French

- 200-Level, 300-Level or 400-Level FREN Courses

German

- 200-Level, 300-Level or 400-Level GERM Courses

Japanese

- 200-Level, 300-Level or 400-Level JPNS Courses

Spanish

- 200-Level, 300-Level or 400-Level SPAN Courses

Russian

- 200-Level, 300-Level or 400-Level RUSS Courses
Ukrainian

- [200-Level, 300-Level or 400-Level UKR Courses](#)

Comparative Literature

- [LIT 261.3](#)
- [LIT 262.3](#)
- [LIT 263.3](#)
- [LIT 264.3](#)

Linguistics

- [200-Level, 300-Level or 400-Level LING Courses](#)

Literary/Critical Theory

Courses in Literary/Critical Theory can be taken from other departments in the College but require Department of Languages, Literatures, and Cultural Studies approval prior to registering.

**A7 Electives Requirement (33-36 credit units)**

**Bachelor of Arts Three-year (B.A. Three-year) - Modern Languages**

**A1 Basic Humanities Requirement (minimum 12 credit units)**

- [LIT 110.3](#)
- [LIT 111.3](#)

Choose 6 credit units from the following:

- [ARBC 114.3](#)
- [ARBC 117.3](#)
- ...
- [UKR 117.3](#)
- [WGST 112.3](#)

Any senior-level humanities course provided that the prerequisite is met and not more than 6 credit units in one subject are used for the Humanities or Languages Requirements.

Certain WGST courses may be considered a Humanities and/or Social Science.

Refer to the course descriptions. [CLAS 103.3], [CLAS 104.3], [CLAS 105.3], and [CLAS 203.3] may not be used to fulfill the Humanities requirement.

**A2 Language Requirement (9 credit units)**

Choose 6 credit units taught in the primary language:

- [FREN 103.3](#)
- [FREN 106.3](#)
- [FREN 122.3](#)
Choose 3 credit units from the following:

- ARBC 114.3
- ARBC 117.3
- ...
- UKR 114.3
- UKR 117.3

Any senior-level language course provided that the prerequisite is met and not more than 6 credit units in one subject are used for the Humanities or Languages Requirement.

**A6 Major Requirement (30 credit units)**

Choose 18 credit units of language, culture, or literature courses taught in the chosen primary language.

**Cultural Courses**

- FREN 251.3
- FREN 252.3
- FREN 272.3
- GERM 202.3
- GERM 204.3
- GERM 266.3
- SPAN 202.3
- SPAN 204.3

**French**

- [200-Level, 300-Level or 400-Level FREN Courses](#)

**German**

Students who have chosen German as their primary language MUST take German 314 and 317 as part of their major.

- [200-Level, 300-Level or 400-Level GERM Courses](#)

**Spanish**

Students who have chosen Spanish as their primary language MUST take Spanish 314 and 317 as part of their major.

- [200-Level, 300-Level or 400-Level SPAN Courses](#)
Choose 12 credit units from the following areas:

Senior Literature and/or cultural courses taught in the primary language or in English

Cultural Courses

- FREN 251.3
- FREN 252.3
- FREN 272.3
- GERM 202.3
- GERM 204.3
- GERM 266.3
- SPAN 202.3
- SPAN 204.3

French

- [200-Level, 300-Level or 400-Level FREN Courses](#)

German

- [200-Level, 300-Level or 400-Level GERM Courses](#)

Spanish

- [200-Level, 300-Level or 400-Level SPAN Courses](#)

English

- [100-Level, 200-Level, 300-Level or 400-Level ENG Courses](#)

A Secondary Language

Choose 6 credit units from the following:

- ARBC 114.3
- ARBC 117.3
- CHIN 114.3
- CHIN 117.3
- CREE 101.6
- GRK 112.3
- GRK 113.3
- HEB 114.3
- HEB 117.3
- JPNS 114.3
- JPNS 117.3
- LATN 112.3
- LATN 113.3
French
- 100-Level, 200-Level, 300-Level or 400-Level FREN Courses

German
- 100-Level, 200-Level, 300-Level or 400-Level GERM Courses

Spanish
- 100-Level, 200-Level, 300-Level or 400-Level SPAN Courses

Russian
- 100-Level, 200-Level, 300-Level or 400-Level RUSS Courses

Ukrainian
- 100-Level, 200-Level, 300-Level or 400-Level UKR Courses

The department may also recognize language courses taken at other institutions on a case by case basis.

Comparative Literature
- LIT 261.3
- LIT 262.3
- LIT 263.3
- LIT 264.3

Linguistics
- 200-Level, 300-Level or 400-Level LING Courses

Rationale: The proposed changes reflect the realities of course offerings, and will make it possible for students to complete the program, in a way that is true to the original spirit of this program, without requiring substitutions.

1. Not enough German classes are available for students to select this as their primary language.
2. Arabic and Japanese have been introduced at the U of S and there is no reason to exclude these as secondary language options. (Course offerings are too limited for them to serve as a primary language in the program.)
3. No Russian courses have been offered for years, resulting in no permanent courses still appearing in the Catalogue.
4. No 200-level LIT courses are offered, so students can only select from the two 100-level courses.
5. No 200-level LIT courses are offered, so students cannot fulfill this requirement.
Philosophy

Minor course revisions
PHIL 121.3 Introduction to World Philosophies
Add this course to the “Humanities” course lists in all Arts & Science programs. (This does not include the “Humanities Writing Requirement” list in Bachelor of Science programs.)
Rationale: When this course was initially proposed the desired distribution requirements were not listed in the course challenge submission due to oversight. This class was intended to be included in the list of Humanities courses from the beginning.

Religion & Culture

Minor program revisions
Bachelor of Arts Honours, Double Honours, Four-year and Three-year and Minor in Religion & Culture
Add RLST 258.3 (Religion and Culture in Bollywood Film) and RLST 330.3 (Daoism) to the list of Area A courses in each program.
Add RLST 255.3 (Doukhobor Culture in Canada) to the list of Area B courses in each program.
Add RLST 332.3 (Rise of Fundamentalism in South Asia) to the list of Area C courses in each program.

Area A: Asian Religions in Cross-Cultural Perspective

- RLST 211.3
- RLST 214.3
- RLST 215.3
- RLST 217.3
- RLST 218.3
- RLST 230.3
- RLST 231.3
- RLST 232.3
- RLST 234.3
- RLST 235.3
- **RLST 258.3**
- RLST 282.3
- RLST 283.3
- RLST 284.3
- RLST 285.3
- RLST 329.3
- **RLST 330.3**
- RLST 332.3
- RLST 342.3
- RLST 390.3
- RLST 412.3
- RLST 413.3
- RLST 423.3

Area B: Western Religions in Cross-Cultural Perspective

- RLST 210.3
- RLST 216.3
- RLST 219.3
- RLST 220.3
• RLST 221.3
• RLST 222.3
• RLST 225.3
• RLST 226.3
• RLST 227.3
• RLST 228.3
• RLST 229.3
• RLST 237.3
• RLST 240.3
• RLST 241.3
• RLST 243.3
• RLST 253.3
• RLST 254.3
• RLST 255.3
• RLST 277.3
• RLST 300.3
• RLST 301.3
• RLST 303.3
• RLST 314.3
• RLST 320.3
• RLST 321.3
• RLST 328.3
• RLST 359.3
• RLST 361.3
• RLST 362.3
• RLST 363.3
• RLST 365.3
• RLST 375.3
• RLST 377.3
• RLST 382.3
• RLST 391.3

Area C: Interdisciplinary Religion and Culture: Classes offered in other subjects

• ANTH 230.3
• ANTH 321.3
• ANTH 339.3
• ANTH 354.3
• ARCH 244.3
• CLAS 104.3
• CLAS 240.3
• CLAS 242.3
• CLAS 252.3
• GEOG 130.3
• HIST 230.3
• HIST 231.3
• IS 211.3
• IS 212.3
• LING 244.3
• LING 402.3
• PHIL 202.3
• PHIL 302.3
Rationale: These existing, relevant courses will increase course options for students in the program. This change will reduce the number of manual exceptions requested.

**Sociology**

**New course(s):**
SOC 307.3 Animals and Society
½ (3L) Sociological perspectives on the relationship between human and non-human animals, and the multi-dimensional role of animals in contemporary society.
Prerequisite(s): 12 credit units SOC courses
Instructor: Colleen Anne Dell
Rationale: This course was developed for future on-line offering in January, 2020 through Distance Education. The animals and society field is growing, including within sociology. However, there are limited offerings of Animals & Society courses in Sociology Departments in Canada. This course is designed to assist students with integrating their existing and acquired knowledge and applying it to current debates in a sociologically informed manner. Professor Dell's Centennial Enhancement Chair in One Health & Wellness focuses on animal assisted interventions, and there is significant student interest in the area when discussed in her current addictions class. She also has a multi-disciplinary research program on the U of S campus in the area (e.g., involving medicine, veterinary medicine, kinesiology) and is involved in significant community practice (offers animal assisted interventions at the Regional Psychiatric Centre, the University of Saskatchewan PAWS Your Stress program, etc.).

**Statistics**

**Minor program revisions**

**Bachelor of Science Honours, Double Honours, Four-year and Three-year in Statistics**
Four year, Three-year, Honours and Double Honours programs: Add MATH 176 as an option to MATH 110, and add MATH 177 as an option to MATH 177, in C4.Four-year: Add MATH 164 as an option to MATH 266; Add MATH 163 and 266 as options in the list of restricted electives in C6. Honours: Add MATH 163, 164, and 277 as required courses; remove MATH 238, 371 and 379 as required courses; add MATH 371 as an option to MATH 266; replace MATH 301 and 401 with MATH 402.
Double Honours (Major 1 and Major 2): Remove MATH 238 as a required course; Replace Requirement for MATH 266 with an option to choose two of MATH 164, 266, or 277; replace MATH 301 and 401 with MATH 402.
Double Honours in Statistics and Mathematics: Add MATH 163, 164, and 277 as required courses, remove MATH 238 and 366; replace MATH 301 and 401 with MATH 402; reduce the restricted elective requirement in C6 to 9 credit units from 12.

**Bachelor of Science Four-year (B.Sc. Four-year) - Statistics C4 Mathematics and Statistics Requirement (6 credit units)**

- MATH 110.3 or MATH 176.3
- MATH 116.3 or MATH 177.3
C6 Major Requirement (36 credit units)

- MATH 225.3 or MATH 276.3 (Students contemplating Honours should choose MATH 276)
- MATH 164.3 (formerly MATH 264.3) or MATH 266.3
- STAT 241.3
- STAT 242.3
- STAT 342.3
- STAT 344.3
- STAT 345.3
- STAT 348.3

Choose 6 credit units from the following:

- STAT 341.3
- STAT 346.3
- STAT 349.3
- STAT 442.3
- STAT 443.3

Choose 6 credit units from the following:

- 300-Level or 400-Level MATH Courses
- 300-Level or 400-Level STAT Courses
- MATH 163.3
- MATH 211.3
- MATH 226.3
- MATH 238.3 (Students contemplating Honours should take this course)
- MATH 258.3
- MATH 266.3
- MATH 277.3 (Students contemplating Honours should take this course)

Bachelor of Science Honours (B.Sc. Honours) - Statistics
C4 Mathematics and Statistics Requirement (6 credit units)

- MATH 110.3 or MATH 176.3
- MATH 116.3 or MATH 177.3

C6 Major Requirement (48 credit units)

- MATH 163.3
- MATH 164.3
- MATH 238.3
- MATH 266.3 or MATH 371.3
- MATH 276.3
- MATH 277.3
- MATH 301.0
- MATH 371.3
- MATH 379.3
- MATH 401.0
- MATH 402.0
- STAT 241.3
- STAT 242.3
- STAT 341.3
Bachelor of Science Double Honours - Statistics - Major 1

C4 Mathematics and Statistics Requirement (6 credit units)

- MATH 110.3 or MATH 176.3
- MATH 116.3 or MATH 177.3

C6 Major Requirement (36 credit units)

- MATH 238.3
- MATH 266.3
- MATH 276.3
- MATH 301.0
- MATH 401.0
- MATH 402.0
- STAT 241.3
- STAT 242.3
- STAT 341.3
- STAT 342.3
- STAT 442.3
- STAT 443.3

Choose 6 credit units from the following:

- MATH 164.3 (formerly MATH 264.3)
- MATH 266.3
- MATH 277.3

Choose 6 credit units from the following:

- STAT 344.3
- STAT 345.3
- STAT 348.3

Choose 3 credit units from the following:

- STAT 346.3
- STAT 349.3

Double Honours - Statistics - Major 2
Requirements (42 credit units)

- MATH 110.3 or MATH 176.3
- MATH 116.3 or MATH 177.3
- MATH 238.3
Choose 6 credit units from the following:

- MATH 164.3 (formerly MATH 264.3)
- MATH 266.3
- MATH 277.3

Choose 6 credit units from the following:

- STAT 344.3
- STAT 345.3
- STAT 348.3

Choose 3 credit units from the following:

- STAT 346.3
- STAT 349.3

Recommended Electives

- CMPT 141.3
- CMPT 145.3

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

**Bachelor of Science Double Honours - Statistics and Mathematics - Majors 1 and 2**

**C4 Mathematics and Statistics Requirement (6 credit units)**

- MATH 110.3 or MATH 176.3
- MATH 116.3 or MATH 177.3

**C6 Major Requirement (66 credit units)**

- MATH 163.3
- MATH 164.3
- MATH 211.3
- MATH 238.3
- MATH 266.3
- MATH 276.3
- MATH 277.3
- MATH 301.0
Choose 6 credit units from the following:

- STAT 344.3
- STAT 345.3
- STAT 348.3

Choose 3 credit units from the following:

- STAT 346.3
- STAT 349.3

Choose 12 credit units from the following:

- MATH 363.3 and MATH 364.3, are intended primarily for Education students, and are therefore excluded from the list of acceptable courses.

- 300-Level or 400-Level MATH Courses
- 300-Level or 400-Level STAT Courses
- MATH 238.3
- MATH 277.3

Rationale: MATH 163 is being introduced as a foundational course towards mathematical thinking, which is applicable for all mathematics and statistics students. (See above.)

Math 164 is proposed to be the prerequisite for MATH 266. This change will help students be on even footing in 266. (See above.)

Math 402 (Honours Thesis in Mathematics) replaces the seminar courses (301 and 401). This research experience will be helpful for all students looking to enter a graduate program. (See above.)

MATH 238 used to cover both sequences and series, and differential equations, but no longer covers sequences and series and therefore is no longer as relevant for the statistics programs.

Most statistics programs rely on the knowledge of linear algebra, and less on real analysis (371). To accommodate those grad programs that require real analysis, and to optimize our delivery of stats classes, it is the recommendation of the department that students can take either 266 or 371 as part of their program.

MATH 379 (complex variable course) is integral to Mathematics programs, but is not really needed for statistics.

Math 277 is added to the Honours programs and is an option in the Double Honours programs as this course deals with vector calculus that will serve the need for statistical applications in courses such as those in higher level stats classes.
Minor in Statistics
Remove MATH 164 as an alternate to ECON 305 and MATH 266 in the Minor in Statistics for students majoring in Business Economics or Economics (only).

Statistics - Minor

Requirements (18 credit units)

- No change

For students majoring in Business Economics or Economics:

Students majoring in Economics or Business Economics may follow the requirements for the Minor in Statistics as listed above, or may follow the alternate requirements below

- MATH 110.3
- MATH 116.3
- MATH 164.3 (formerly MATH 264.3) or MATH 266.3 (preferred) or ECON 305.3
- MATH 225.3 or MATH 276.3 (MATH courses preferred) or ECON 306.3
- ECON 304.3
- ECON 408.3
- ECON 409.3
- STAT 241.3
- STAT 245.3
- STAT 345.3
- STAT 348.3

Rationale: Previously the Department of Economics allowed students to take MATH 264 or 266 as an alternative to ECON 305. With the approved renumbering and revisions of MATH 264 (to MATH 164 as of May 2017), the department feels that MATH 266 is now the only appropriate alternative.

Minor course revisions
STAT 346.3 Multivariate Analysis
Prerequisite change:
Old prerequisite: MATH 266, STAT 241, and one of STAT 344 or STAT 345.
New prerequisite: MATH 164 (formerly MATH 264.3) or MATH 266; STAT 241; and one of STAT 344 or STAT 345.
Rationale: The proposed prerequisite change for MATH 266 necessitates this prerequisite change, as part of the transition. Students with only MATH 164 as background will be advised regarding supplemental background reading.

STAT 443.3 Linear Statistical Models
Prerequisite change:
Old prerequisite: MATH 266, STAT 342, and STAT 344 or 345.
New prerequisite: MATH 164 (formerly MATH 264) or MATH 266; STAT 342; and STAT 344 or 345.
Rationale: The proposed prerequisite change for MATH 266 necessitates this prerequisite change, as part of the transition. Students with only MATH 164 as background will be advised regarding supplemental background reading.
Studio Art

Minor program revisions
Bachelor of Fine Arts Honours and Bachelor of Arts Honours, Double Honours, Four-year, and Three-year and Minor in Studio Art
Add ART 432.6 to the Drawing list; rename the Extended Media area to Digital and Integrated Practice, and add ART 230, 231, 330, 331, 340, 460, and 461; and add ART 136.3 to the Sculpture list (in addition to keeping it in the Digital and Integrated Practice list).

Studio Areas

Painting
- ART 111.6
- ART 211.6
- ART 311.6
- ART 411.6
- ART 421.6
- ART 431.6

Drawing
- ART 112.6
- ART 212.6
- ART 312.6
- ART 412.6
- ART 422.6
- ART 432.6

Printmaking
- ART 151.3
- ART 152.3
- ART 251.3
- ART 313.6
- ART 413.6
- ART 423.6
- ART 433.6

Digital and Integrated Practice Extended Media
- ART 136.3
- ART 230.3
- ART 231.3
- ART 236.3
- ART 237.3
- ART 330.3
- ART 331.3
- ART 338.3
- ART 339.3
- ART 340.3
- ART 438.3
Rationale: A number of new courses are being proposed in the area of Digital and Integrated Practice (see below), and this change will give those courses the same profile as the other studio areas in each of the programs. ART 432.6 is a drawing course and belongs on that list. ART 136.3 is a broad course which involves aspects of Digital and Integrated Practice as well as Sculpture, and therefore belongs on both lists.

New course(s):
ART 230.3 Video Art and Sound I
1/2 This course explores the potentials of digital video and sound as contemporary art mediums. Technical production will be situated alongside experimental fine art thinking in term projects and learner exercises. Reading and discussion of related texts, artists' work, and supplementary audio/visual material will accompany production of artworks.
Prerequisite(s): 3 credit units 100-level ART courses
Note: Adobe Software: Premiere Pro and Audition will be used in the production of projects and assignments. No previous experience with this software is required. NOTE: Software will be available to all registered students throughout the term in the Arts Media Lab (Murray 184). If students wish to use their own laptops/computers they will need to purchase a Software license to run on their home device.
Instructor: Lisa Birke
Rationale: "Video Art and Sound" is a subject specialization that is currently embedded within the existing course "Digital and Integrated Practice" or DIP (formerly Extended Media). The subject areas listed in the course description for DIP are: video, projection, installation, sound, digital animation, performance, relational aesthetics and other forms of extended media.
When students are searching for an area of interest such as video and/or sound in the ART course offerings, the vague course title and the broad purview of DIP confuses and/or even hinders the student from enrolling in or even finding the subject specialization. A student wanting to focus on video art is going to hesitate in taking a class if performance art and relational aesthetics (and the other subjects listed) are also potential topics to be covered, if they have no interest in these other media. In other University programs, video is an independent area of study. This specialization takes dedicated and
continued study to master. Currently in DIP, students are only getting an introduction to each focus area rather than full immersion. This disadvantages students who wish to pursue video and sound as career paths or as their chosen medium for their art practice. Due to time constraints of 3 credit courses, it is not possible to offer more than a couple of the currently listed topics in DIP in one semester. Thus, the course description, as it stands, is misleading. It also makes sense to have more streamlined options available to the students enrolling from other departments. "Video Art and Sound" will be very useful for a Drama, Interactive Systems Design and/or Urban Planning student. These new classes set up a precedent for future course/department cross-pollination as digital skills are applicable in most sectors and will become increasingly so.

Enrollment in this area of study will increase if students can select their specific areas of interest. It will also provide a more logical learning trajectory year to year. Building the skills in and understanding of the complexities of video art production and/or sound, involves multi-staged skill attainment that is only possible over more than one term. This more focused per-medium programming is the structure currently in place in all other areas of the studio stream in Art and Art History. For example, students can choose to take Photography, Painting, Drawing, Printmaking or Sculpture at progressive levels. I would argue that Video Art and Sound requires a similar dedicated trajectory.

ART 231.3 Animation and Digital Space I
1/2 Animation and Digital Space explores the rich potential of animation, digital motion graphics, and 2.5D digital environments as viable art mediums in contemporary art practice. Through a series of exercises and projects, stop-motion and traditional animation will converge with digital animation and digital environments.

Prerequisite(s): 3 credit units 100-level ART courses
Note: Software to be covered: Adobe Premiere Pro and After Effects. Photoshop and Illustrator may also be introduced in the building of assets. (Note: you do not need prior experience using the Adobe software to take this class.) Software will be available to all registered students throughout the term in the Arts Media Lab (Murray 184). If students wish to use their own laptops/computers they will need to purchase a Software license to run on their home device.

Instructor: Lisa Birke
Rationale: "Animation and Digital Space" is currently embedded within the existing course "Digital and Integrated Practice" or DIP (formerly Extended Media). The subject areas currently listed in the course description for DIP are: video, projection, installation, sound, digital animation, performance, relational aesthetics and other forms of extended media.

When students are searching for a specific area of interest such as animation in the ART course offerings, the vague course title and the broad purview of DIP confuses and/or even hinders the student from enrolling in or even finding the subject specialization. A student wanting to focus on digital space is also going to hesitate in taking the class if performance art and relational aesthetics (and the other subjects listed) are also potential topics to be covered if they have no interest in these other media. In other University programs, animation is an independent area of study, as this specialization takes dedicated and continued study to master. Currently in DIP, students are only getting an introduction to each focus area rather than full immersion. This disadvantages students who wish to pursue animation as a career path or as their chosen medium for their art practice. Due to time constraints of 3 credit courses, it is not possible to offer more than a couple of the currently listed topics in DIP in one semester. Thus, the course description is misleading. It also makes sense to have more streamlined options available to the students enrolling from other departments. "Animation and Digital Space" will be very useful for an Interactive Systems Design and Urban Planning student. These new classes set up a precedent for future course/department cross-pollination as digital skills are applicable in most sectors and will become increasingly so.

Enrollment in this area of study will increase if students can select their specific areas of interest. It will also provide a more logical learning trajectory year to year. Building the skills in and understanding of the complexities of animation and digital production, involves multi-staged skill attainment that is only possible over more than one term. This more focused per-medium programming is the structure currently in place in all other areas of the studio stream in Art and Art History. For example, students can choose to take Photography, Painting, Drawing, Printmaking or Sculpture at progressive levels. I would argue that Animation and Digital Space, like Video Art and Sound require similar dedicated trajectories.
ART 330.3 Video Art and Sound II
1/2 Continued exploration and expansion of video and sound potentials, contextualizing digital media within contemporary installation and art practice. Technical production will be situated alongside experimental fine art thinking in two to three term projects. Reading and discussion of related texts, artists' work and supplementary audio/visual material will accompany production of artworks.
Prerequisite(s): ART 230
Note: Adobe Software: Premiere Pro, Audition and After Effects will be used in the production of projects and assignments. No previous experience with this software is required. NOTE: Software will be available to all registered students throughout the term in the Arts Media Lab (Murray 184). If students wish to use their own laptops/computers they will need to purchase a Software license to run on their home device.
Instructor: Lisa Birke
Rationale: Video Art and Sound II is the follow-up course for ART 230 (see above). Offering this level I and II courses will provide a more logical learning trajectory year to year. Building the skills in and understanding of the complexities of video art production and/or sound, involves multi-staged skill attainment that is only possible over more than one term. Video Art and Sound I will introduce the cameras and audio recorders and will teach the basic software skills needed for video and audio editing. Level II will allow students to build on these existing technical skills, as well as explore special effects software and compositing options. ART 330 will also allow students to focus on their conceptual acuity, producing more ambitious works in video and sound installation.

ART 331.3 Animation and Digital Space II
1/2 Animation and Digital Space proposes and explores the rich potential of animation, digital motion graphics and 2.5D digital environments as viable art mediums in contemporary art practice. This course will use a combination of live video capture, still imagery, green screening, rotoscoping, masking and digital animation techniques to manipulate, collage and build 2.5D digital spaces, concepts and/or narratives using After Effects. Following a sequence of technically-based exercises and thematic lectures, each student will create a video installation that uses the skills and concepts introduced in class.
Prerequisite(s): ART 231
Note: Software to be covered: Adobe Premiere Pro and After Effects. Photoshop and Illustrator will also be used in the building of assets. Software will be available to all registered students throughout the term in the Arts Media Lab (Murray 184). If students wish to use their own laptops/computers they will need to purchase a Software license to run on their home device.
Instructor: Lisa Birke
Rationale: Animation and Digital Space II is the follow-up course for ART 231 (see above). Offering this level I and II courses will provide a more logical learning trajectory year to year. Building the skills in and understanding of the complexities of animation production and digital motion graphics involves multi-staged skill attainment that is only possible over more than one term. Animation and Digital Space I will introduce the cameras and the basics of stop-motion animation, and will teach the basic software skills needed for digital animation and compositing. Level II will allow students to build on these existing technical skills, exploring special effects and building 2.5D digital environments using 2D digital assets in a 3D space with virtual cameras and lights. ART 331 will also allow students to focus on their conceptual acuity, producing more ambitious works ready for installation/projection.

ART 340.3 Contemporary Performance Art Theory and Praxis
1/2 This class will trace the early development of performance as an art form, show how it has made radical social and political statements and challenged the status quo of fine art practice. Through examination of theoretical texts and ideas alongside the production of live performance, performance-for-video and relational aesthetics projects, this class will allow students to engage with the broad potentials of this cutting-edge contemporary art form.
Prerequisite(s): 12 credit units ART courses or permission of the instructor.
Note: Students with credit for ARTH 340 cannot take this course for additional credit.
Instructor: Lisa Birke
Rationale: The topic of Performance Art has been offered as ARTH 340 (currently moribund), which was allowed to be used to meet either studio or art history requirements. The addition of this ART version of
the course will make it clear to students, that ART 340 meets studio requirements, and will reduce the need for manual intervention in Degree Works.

**ART 460.3 Video Art and Sound III**
1/2 Advanced exploration and expansion of video and sound, contextualizing digital media within contemporary installation and art practice. Technical production will be situated alongside experimental fine art thinking in two to three term projects. Reading and discussion of related texts, artists’ work and supplementary audio/visual material will accompany production of artworks.
Prerequisite(s): ART 330
Note: Adobe Software: Premiere Pro, Audition and After Effects will be used in the production of projects and assignments. Software will be available to all registered students throughout the term in the Arts Media Lab (Murray 184). If students wish to use their own laptops/computers they will need to purchase a Software license to run on their home device.
Instructor: Lisa Birke
Rationale: ART 460 will allow students with credit for ART 330 to further develop their skills in this area. While the assignments in this class will be similar to those in ART 330, the 400-level students will be graded/assessed at a higher level. The expectation is that their work will have a greater conceptual refinement and complexity, as well as more advanced technical skills, and that they will take greater artistic risks.

**ART 461.3 Animation and Digital Space III**
1/2 Animation and Digital Space is an advanced exploration of the rich potential of animation, digital motion graphics and 2.5D digital environments as viable art mediums in contemporary art practice. This course will use a combination of live video capture, still imagery, green screening, rotoscoping, masking and digital animation techniques to manipulate, collage and build 2.5D digital spaces, concepts and/or narratives using After Effects. Following a sequence of technically-based exercises and thematic lectures, each student will create two to three advanced projects that use the skills and concepts introduced in class.
Prerequisite(s): ART 331
Note: Software to be covered: Adobe Premiere Pro and After Effects. Photoshop and Illustrator will also be used in the building of assets. Software will be available to all registered students throughout the term in the Arts Media Lab (Murray 184). If students wish to use their own laptops/computers they will need to purchase a Software license to run on their home device.
Instructor: Lisa Birke
Rationale: ART 461 will allow students with credit for ART 331 to further develop their skills in this area. While the assignments in this class will be similar to those in ART 331, the 400-level students will be graded/assessed at a higher level. The expectation is that their work will have a greater conceptual refinement and complexity, as well as more advanced technical skills, and that they will take greater artistic risks.
Items for Information
The curricular revisions listed below were approved through the Arts & Science College Course and Program Challenge and are now submitted to the University Course Challenge for information.

English

Minor course revisions
ENG 309.3 Creative Nonfiction II
Prerequisite change:
Old prerequisite(s): Successful completion of 6 credit units of 100-level English; a portfolio of 1500-2000 words and permission of the instructor.
New prerequisite(s): 6 credit units of 100-level English and permission of the instructor.
Rationale: The Department of English is clarifying the nature of our Creative Writing courses for students through minor changes to titles and through standardized prerequisite statements for the 300-level courses. The updated prerequisite statement is intended to provide a more accurate representation of what is actually required of students.

ENG 365.6 Creative Writing
Prerequisite change:
Old prerequisite(s): 6 credit units of 100-level English.
New prerequisite(s): 6 credit units of 100-level English and permission of the instructor.
Rationale: See ENG 309.

ENG 366.3 Advanced Creative Writing Fiction
Prerequisite change:
Old prerequisite(s): None
New prerequisite(s): 6 credit units of 100-level English and permission of the instructor.
Change to Note:
Old Note: Evidence of practice and skill in the writing of creative prose as determined by the instructor. A special application, available from St. Thomas More College Rm. 146, is required for this course.
New Note: A special application, available from St. Thomas More College Rm. 155, is required for this course.
Rationale: See ENG 309.

ENG 383.3 Rereading Colonialism
New title: Decolonizing Theories and Literatures
New course description: This course provides a foundational grounding in decolonial theories and literatures. Themes to be examined include subaltern knowledge, land, language, hybridity, environment, gender, power, and history. A wide range of theorists from (post)colonial and decolonizing contexts will be considered in tandem with a selection of contemporary Anglophone literature.
Rationale: The change is part of a larger revision process intended to better historicize and sequence the Department of English's coverage of decolonizing and decolonial literatures and theories. We have altered the names and course descriptions of other classes (207, 444) to clarify their focus and to encourage better student comprehension of the existing critical and historical field. These changes--like the change to the course description of ENG 383.3--take into account significant changes in the discipline and how they can be best contextualized in a department of English situated on the Canadian prairies. There is no substantive change in the content of the courses in question; rather, the goal is to reorganize an existing body of knowledge and to clarify where the emphases will lie in relation to different courses. Our changes seek to align some of the courses and course content with the university's stated goals of Indigenization and reconciliation. They stem from our belief that the process of decolonization cannot begin if there is no clear understanding of the legacies and ongoing iterations of coloniality. In our literary discipline, this means paying attention to the ways in which historical and contemporary texts reflect, refract, and resist colonial attitudes. Thus, it is our contention that decolonizing literatures can only be taught effectively if there is clear and strongly grounded understanding of the exploitative and racist
aspects of colonialism in literature, which is the focus of ENG 207.3 (to be renamed "Introduction to Colonial and Decolonizing Literatures"), as well as decolonizing theories and literatures (the focus of ENG 383.3).

The changes proposed would enact a clearer pathway in the decolonizing and decolonial area of focus: from introductory and historicized second-year courses engaging with Canadian as well as inter- and transnational contexts (207, 209), to a more theoretical and advanced third-year course in the field (383). This would better prepare potential majors for the rigours of an Honours course (444.3) and/or graduate courses in decolonizing and decolonial theory and literatures.

**Indigenous Studies**

**Minor course revisions**

**INDG 440.3 Theoretical Perspectives in Indigenous Studies**

**INDG 450.6 Research in Aboriginal Communities**

**INDG 451.6 Advanced Research Paper**

Prerequisite change:

Old prerequisite(s): NS 350 or INDG 350 and 12 credit units in senior NS or INDG courses.

New prerequisite(s): INDG 252; and INDG 351 or INDG 352; and 12 credit units INDG courses at the 300-level

Rationale: See deletion of INDG 350.6 above.

**Mathematics**

**Minor course revisions**

**MATH 313.3 Numerical Analysis II**

New title: *Numerical Linear Algebra*

Prerequisite change:

Old prerequisite: MATH 211, and 266 or equivalent in linear algebra

New prerequisite: MATH 164 or MATH 266; and MATH 211

Change to Note:

Old Note: Students may receive credit for a maximum of two of MATH 313, 314 and 315

New Note: n/a

Change to equivalence: Remove equivalence with MATH 315.

Rationale: The prerequisite changes flow from other changes, above. MATH 315 was offered exactly once, in 2002. It has not been included in the Course Catalogue for over 10 years, and therefore this equivalence, and the corresponding note, is no longer relevant nor required.

**MATH 314.3 Numerical Analysis III**

New title: *Numerical Solution of Ordinary Differential Equations*

Change to Note:

Old Note: Students may receive credit for a maximum of two of MATH 313, 314 and 315

New Note: n/a

Change to equivalence: Remove equivalence with MATH 315.

Rationale: MATH 315 was offered exactly once, in 2002. It has not been included in the Course Catalogue for over 10 years, and therefore this equivalence, and the corresponding note, is no longer relevant nor required.

**MATH 352.3 Introduction to Differential Geometry**

New title: *Elementary Differential Geometry*

New course description: Introduction to differential geometry of curves, surfaces, hypersurfaces, curvature and geodesics.

Prerequisite change:
Old prerequisite: MATH 164 (formerly MATH 264) or MATH 266; and (MATH 238 and MATH 276 and MATH 277) or (MATH 223 and MATH 224) or (MATH 225 and MATH 226) - with grades of at least 80% and permission of the Head of the Department of Mathematics and Statistics.
New prerequisite: MATH 266; and (MATH 238 and MATH 277) or (MATH 223 and MATH 224) or (MATH 225 and MATH 226) - with grades of at least 80% and permission of the instructor.
Rationale: MATH 266 will provide better preparation for MATH 352 than MATH 164. The only program that requires this course is the B.Sc. Honours in Mathematical Physics, which also requires MATH 266.

MATH 361.3 Group Theory
Prerequisite change:
Old prerequisite: MATH 266
New prerequisite: MATH 163 and MATH 164; or MATH 266
Change to Note:
Old Note: Students may receive credit for only one of MATH 360 or 361 or 363.
New Note: n/a
Change to equivalence: Remove equivalence with MATH 360 and 363.
Rationale: The prerequisite changes flow from other changes, above. MATH 360.6 was split into MATH 361.3 and 362.3 for the 2011-12 academic year. The department no longer feels that this equivalence is necessary, as any student who returns after so long will benefit from relearning the material, and we do not object to giving them credit for both. MATH 363 has been gone even longer.

MATH 362.3 Rings and Fields
Prerequisite change:
Old prerequisite: MATH 266
New prerequisite: MATH 163 and MATH 164; or MATH 266
Change to Note:
Old Note: Students may receive credit for only one of MATH 360 or 362 or 363.
New Note: n/a
Change to equivalence: Remove equivalence with MATH 360 and 363.
Rationale: See MATH 361.

MATH 364.3 Number Theory
Prerequisite change:
Old prerequisite: One of MATH 100, 104 (formerly 101), 110, 121, 123, 125, or STAT 103.
New prerequisite: MATH 163
Change to Note:
Old Note: Recommended for teachers of mathematics. May not be included in the courses required in C4 or C6 for Honours Programs in Applied Mathematics, Mathematical Physics, Mathematics or Statistics.
New Note: Students with credit for one of MATH 100, 104, 110, 121, 123, 125, or STAT 103 will be given a prerequisite waiver to take MATH 163 and 364 concurrently in 2019-20.
Rationale: This course will have some overlap with the newly introduced MATH 163. Using MATH 163 as a prerequisite frees MATH 364 from covering these common topics, allowing it to introduce richer and deeper material.

MATH 371.3 Metric Spaces and Continuous Functions
New title: Real Analysis I
New course description: An introduction to concepts and principles of mathematical analysis in Rn, including Cauchy sequences, compactness, the theory of continuous functions, and uniform convergence.
Prerequisite change:
Old prerequisite: MATH 238 and MATH 276
New prerequisite: MATH 163 and MATH 277; or MATH 277 and permission of the instructor
New Note: Students majoring in Applied Mathematics who have completed MATH 223 and 224; or MATH 225 and 226 will be granted a prerequisite waiver to register in MATH 371.
Rationale: The current MATH 371 course description is a bit vague about what is being covered and at what level. By specifically mentioning terms like "Cauchy sequences" and "compactness", the message is
that this is an introductory course. Everything that is mentioned in the old course description is covered so this is the same course, but with a clear message that this is the first course in Real Analysis.

**MATH 373.3 Integration Theory**
New title: Real Analysis II
New course description: A continuation of MATH 371, centering around Lebesgue integration theory, Lp-spaces, and applications.
Change to Note:
Old Note: Students with credit for MATH 470 may not take this course for credit.
New Note: n/a
Change to equivalence: Remove equivalence with MATH 470.
Rationale: This is an existing course in integration theory. The updated title and course description reflect the emphasis placed on certain topics, and show the progression from MATH 371 to 373. MATH 470.6 (Mathematical Analysis) was split into MATH 371 and 372 in 1990-91, and no longer needs to be referenced for students. Any returning student who took MATH 470.6 will be advised on a case-by-case basis on the correct course choices to meet program requirements.

**MATH 379.3 Complex Analysis**
Prerequisite change:
Old prerequisite: MATH 225 or 276; and MATH 226 or 238.
New prerequisite: MATH 225 and 226; or MATH 238 and 277.
Rationale: The revised prerequisites will improve the performance of students in the Mathematics and Mathematical Physics Honours programs, for which this course is required. (Currently, students from Mathematics and Mathematical Physics are able to take 379 in their second year concurrently with 277. However, 277 has material that is considered foundational for the content in 379. This change addresses this issue. Note that students from Physics typically take 225 and 226 in their second year, which is a suitable path into 379. For them, there should be no change.)

**MATH 433.3 Applied Group Theory**
Prerequisite change:
Old prerequisite: MATH 276 and MATH 366; or MATH 276 and MATH 266 and permission of the instructor
New prerequisite: MATH 266; and (MATH 238 and MATH 277) or (MATH 223 and MATH 224) or (MATH 225 and MATH 226 - with grades of at least 80% and permission of the instructor).
New Note: Students with credit for MATH 266 and MATH 276 will be granted a prerequisite waiver to take MATH 433 concurrently with MATH 238 and MATH 277 for 2019-20.
Rationale: The prerequisite change reflects the proposed deletion of MATH 366 (see above), and also opens the class to those students who take multivariable calculus via MATH 223 or MATH 225. The note on the course for 2019-20 will maintain a pathway into the course for students who took the 2018-19 prerequisites this year or earlier.

**MATH 452.3 Introduction to Modern Differential Geometry**
Prerequisite change:
Old prerequisite: MATH 366; and MATH 352 or MATH 371
New prerequisite: MATH 266; and MATH 352 or MATH 371
Rationale: The prerequisite change reflects the proposed deletion of MATH 366 (see above).
College of Education – December 2018 University Course Challenge

The curricular revisions listed below were approved by the College of Education Faculty Council on Friday, December 7, 2018 and are now submitted to the University Course Challenge for approval.

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

**Minor program revision:**
To remove KIN 150.3: How Body Moves I as an acceptable course to meet the Fine Arts requirement for the Elementary/Middle Years program.

**Elementary/Middle Years Program Requirements (120 credit units)**

Teacher candidates intending to become certified to teach children in elementary schools must complete the following program requirements:

**Years 1 & 2 (60 credit units)**

- EDLC 101.0
- EDLC 102.0
- EDLC 201.0
- EDLC 202.0
- EFDT 101.3
- ECUR 163.3 or ECUR 164.3
- EPSE 202.3
- EFDT 265.3 or ECUR 265.3

**Choose 6 credit units of junior-level English:**

**Choose 3 credit units of Mathematics or Statistics:**

**Choose 3 credit units of Indigenous Studies:**

**Choose 3 credit units of Social Sciences/Social Studies:**

**Choose 3 credit units of Fine Arts:**

Please Note: not required if Arts Education is a Teaching Area.

- KIN 150.3
- 100-Level, 200-Level, 300-Level or 400-Level ART Courses
- 100-Level, 200-Level, 300-Level or 400-Level ARTH Courses
- 100-Level, 200-Level, 300-Level or 400-Level DRAM Courses
- 100-Level, 200-Level, 300-Level or 400-Level MUS
Minor program revision:
To add TESL 333.3: The Structure of English for Language Teaching and EPSE 414.3: Exceptional Learners Classroom Implications to the list of acceptable elective options for the Post-Degree Certificate in English as an Additional Language Education program.

Program Requirements
Post-Degree Certificate in English as an Additional Language Education (P.D.C.)
...

Electives List
Students may select a course that is not listed below if approved by the Department Head of Curriculum Studies.
Choose from the following (in consultation with Department Head):
• ECUR 475.3
• EIND 380.3
• EPSE 510.3
• LING 110.3
• LING 111.3
• LING 244.3
• LING 248.3
• LING 251.3
• LING 252.3
• LING 253.3
• TESL 333.3
• EPSE 414.3

For information:
The title, course description, and pre-requisites for EXPR 422.15 have been updated.

Rationale: Given recent media publicity\(^1\) regarding the use of the term internship for the unpaid, required practicum in the final year of the Bachelor of Education program, there has been a shift away from using the terms “internship” and “intern” to using “extended practicum” and “teacher candidate” instead. The proposed revisions to the EXPR 422.15 course title and course description reflect these changes.

Furthermore, since the Ministry of Education is no longer responsible for granting teacher certification in Saskatchewan, the course description has been updated to include Saskatchewan Professional Teachers Regulatory Board (SPTRB) teacher competency goals.

Finally, some upper year Education students have questioned exactly which 300-level courses must be completed before enrolling in EXPR 422.15. Since Education methods courses are required prior to the extended practicum, adding the phrase “inclusive of specific methods courses that vary by program route” is being proposed for the prerequisite information.

EXPR 422.15
Professional Extended Practicum Internship Field Experience

The extended practicum is a period of intensive field study experience where teacher candidates are expected to develop and demonstrate program outcomes in the categories of professional, knowledge, instructional and curricular competency. Teacher candidates Interns will work with one or more collaborating co-operating teachers and will function as professionals-in-training, engaging with students and their families, and working alongside colleagues on a regular and in-depth basis, team-teaching, planning units, lessons and other school-based programs, and progressing toward a full teaching load within their school context. Assessment for the extended practicum internship will address Ministry of Education-Saskatchewan Professional Teachers Regulatory Board (SPTRB) teacher competency goals within the framework of the Professional Growth Portfolio (PGP).

Formerly: EDUC 471 and 421
Permission of the department is required.
Prerequisite(s): EDUC 322.3 or EDST 322.3; 24 credit units of required 300-level Education course work (inclusive of specific methods courses that vary by program route) with a 60% ED.W.A.; the completion of credits for two teaching areas; and, credit for the field experience component of the program.
Note: Students with credit for EDUC 422.15 will not receive credit for this course. Students with credit for any of the following pairs will not receive credit for this course: (EDUC 471 and EDUC 421) OR (EXPR 423 and EXPR 425) OR (EXPR 424 and EXPR 425).

Addition of new early years courses:
The pre-K-12 school system and teacher education research/literature have updated policy, programming and terminology to reflect a focus on early years education, rather than elementary education. This change also is reflected in the terminology of the Ministry of Education's sector plan that delineates provincial education goals for early learning. This new course is part of a larger proposal that opens up flexibility to be able to target programming with equivalent teaching methods courses that focus on early years education and/or middle years education.

EART 304.3: Arts Education in the Early Years
In this course, teacher candidates will be introduced to Arts Education that provides an opportunity for Prekindergarten to Grade 3 students to express themselves in 100 languages, including dance, drama, music, visual arts, and literature. To nurture and enhance children’s expression and imagination, teacher candidates will broaden their own creativity and understanding of aesthetics by exploring a variety of resources and authentic materials in both the indoor and outdoor environments. Teacher candidates will be introduced to an overview of history and practice, current thinking, artistic and aesthetic principles, instructional and authentic assessment strategies, and resources for supporting the goals of the Arts Education curriculum. Attention will be given to Indigenous perspectives and ways of knowing, and culturally responsive practices that integrate the out of school experiences of linguistically and culturally diverse children and families into classroom learning.

Prerequisite(s) or corequisite(s): Students pursuing the B.Ed. Direct Entry Program must complete EFDT 101.3; ECUR 163.3 or ECUR 164.3 or ECUR 165.3; EFDT 265.3 or ECUR 265.3; EPSE 202.3.
Equivalent to EART 303.3: Methods in Elementary Visual Art.

ECUR 307.3: Early Literacy, Prekindergarten to Grade 3
In this course, teacher candidates will be introduced to the early stages of young children’s oral and written language and literacy development, situated in the contexts of family, community, and school. Within a framework of developmentally appropriate practice, attention will be given to the six strands of the English Language Arts (listening, speaking, reading, writing, viewing, and representing). Teacher candidates will develop an understanding of classroom environments that promote young children’s exploration of language, story, print and visual text through invitations and provocations using rich and diverse children’s literature and materials that promote playful storytelling, and fantasy and dramatic play. Attention will be given to Indigenous perspectives and ways of knowing, and culturally responsive practices that integrate the out of school experiences of linguistically and culturally diverse children and families into classroom learning.

Prerequisite(s) or corequisite(s): Students pursuing the B.Ed. Direct Entry Program must complete EFDT 101.3; ECUR 163.3 or ECUR 164.3 or ECUR 165.3; EFDT 265.3 or ECUR 265.3; EPSE 202.3.
Equivalent to ECUR 309.3: Introduction to Elementary English Language Arts.

ECUR 308.3: Reading and Writing Development, Prekindergarten to Grade 3
In this course, teacher candidates will be introduced to the early and developing stages of young children’s oral and written literacy acquisition, situated in the contexts of family, community, and school. Teacher candidates will develop knowledge, skills, and dispositions that are critical to the playful, thoughtful, and intentional scaffolding of young children’s reading and writing development. In this course, teacher candidates will develop a philosophical and pedagogical foundation to inform their planning, teaching, learning, and assessment of the six integrated strands of English Language Arts (reading, writing, speaking, listening, viewing, and representing) in early years’ classrooms. Particular emphasis will be placed on approaches and strategies to support the development of young learners’ reading and writing conventions. Attention will be given to Indigenous perspectives and ways of knowing, and culturally responsive practices that integrate the out of school experiences of linguistically and culturally diverse children and families into classroom learning.

Prerequisite(s) or corequisite(s): Students pursuing the B.Ed. Direct Entry Program must complete EFDT 101.3; ECUR 163.3 or ECUR 164.3 or ECUR 165.3; EFDT 265.3 or ECUR 265.3; EPSE 202.3.
Equivalent to ECUR 310.3: Literacy Across the Elementary Curriculum Assessment and Planning in a Relational Context, if ECUR 307.3: Early Literacy, Prekindergarten to Grade 3 is completed.

ECUR 314.3: Mathematics in the Early Years
In this course, teacher candidates will be introduced to approaches and experiences for observing and scaffolding Prekindergarten through Grade 3 children’s understanding in mathematics knowledge, concepts, and processes. Attending to the contexts of family, community, and school, teacher candidates will develop an understanding of classroom environments that support young children’s exploration of mathematics through invitations and provocations using intelligent materials and loose parts to promote creative and logical thinking. Using a constructivist approach, teacher candidates will gain facility with a variety of strategies to help students engage in the exploration of mathematics with deeper understanding. Attention will be given to Indigenous perspectives and ways of knowing, and culturally responsive practices that
integrate the out of school experiences of linguistically and culturally diverse children and families into classroom learning.

**Prerequisite(s) or corequisite(s):** Students pursuing the B.Ed. Direct Entry Program must complete EFDT 101.3; ECUR 163.3 or ECUR 164.3 or ECUR 165.3; EFDT 265.3 or ECUR 265.3; EPSE 202.3.

**Equivalent to ECUR 312.3: Methods in Elementary Mathematics and the combination of ECUR 311.3: Methods in K to 9 Mathematics I and ECUR 316.3: Methods in K to 9 Mathematics II.**

**ECUR 323.3: Science in the Early Years**

In this course, teacher candidates will be introduced to approaches and experiences for observing and scaffolding Prekindergarten through Grade 3 children’s understanding in Science within family, community, and school contexts. Teacher candidates will develop understanding of science and science related topics, learn and experience how children develop scientific knowledge, skills, and attitudes in indoor and outdoor environments, use intelligent materials to explore scientific concepts, and gain a working knowledge of questioning strategies to support young children’s emerging scientific working theories. There will be a focus on planning for inquiry with a holistic lens and the integration of science concepts with concepts from other areas of study. Attention will be given to Indigenous perspectives and ways of knowing, and culturally responsive practices that integrate the out of school experiences of linguistically and culturally diverse children and families into classroom learning.

**Prerequisite(s) or corequisite(s):** Students pursuing the B.Ed. Direct Entry Program must complete EFDT 101.3; ECUR 163.3 or ECUR 164.3 or ECUR 165.3; EFDT 265.3 or ECUR 265.3; EPSE 202.3.

**Equivalent to ECUR 322.3: Methods in Elementary Science.**

**ECUR 353.3: Physical Education in the Early Years**

In this course, teacher candidates will be encouraged to develop a personal and professional disposition towards living a healthy active lifestyle. Through course content focused on children’s physical development, assessment, and planning, teacher candidates will learn strategies to support the physical development of students in Prekindergarten to Grade 3. Teacher candidates will explore the importance of physical activity, physical literacy, indoor and outdoor environments, holistic development, and health and wellness. Attention will be given to Indigenous perspectives and ways of knowing, and culturally responsive practices that integrate the out of school experiences of linguistically and culturally diverse children and families into classroom learning.

**Prerequisite(s) or corequisite(s):** Students pursuing the B.Ed. Direct Entry Program must complete EFDT 101.3; ECUR 163.3 or ECUR 164.3 or ECUR 165.3; EFDT 265.3 or ECUR 265.3; EPSE 202.3.

**Equivalent to ECUR 352.3: Methods in Elementary Physical Education.**

**ECUR 383.3: Social Studies in the Early Years**

In this course, teacher candidates will be introduced to approaches and experiences for observing children’s interests and designing culturally responsive inquiries and project-based learning in Social Studies for Prekindergarten to Grade 3. Attending to the contexts of family, community, and school, teacher candidates will develop a repertoire of strategies to nurture children in values and attitudes, knowledge and understanding, and skills and processes to strengthen self-identity and active and responsible citizenship. Attention will be given to Indigenous perspectives and
ways of knowing, and culturally responsive practices that integrate the out of school experiences of linguistically and culturally diverse children and families into classroom learning.

**Prerequisite(s) or corequisite(s):** Students pursuing the B.Ed. Direct Entry Program must complete EFDT 101.3; ECUR 163.3 or ECUR 164.3 or ECUR 165.3; EFDT 265.3 or ECUR 265.3; EPSE 202.3.

**Equivalent to ECUR 382.3: Methods in Elementary Social Studies.**

**ECUR 451.3: Health in the Early Years**
In this course, teacher candidates will be introduced to strategies for fostering health and wellbeing for young children, Prekindergarten to Grade 3 and the teacher. Teacher candidates will examine and consider factors that promote understanding, appreciating, and applying health knowledge, skills, and strategies to attain and maintain a healthy body, mind, and spirit throughout life. Course content focuses on national, provincial and community-based resources to promote health and well-being. Attention will be given to Indigenous perspectives and ways of knowing, and culturally responsive practices that integrate the out of school experiences of linguistically and culturally diverse children and families into classroom learning.

**Prerequisite(s) or corequisite(s):** Students pursuing the B.Ed. Direct Entry Program must complete EFDT 101.3; ECUR 163.3 or ECUR 164.3 or ECUR 165.3; EFDT 265.3 or ECUR 265.3; EPSE 202.3.

**Equivalent to ECUR 450.3: Elementary Health Methods.**

**Minor program revisions and new concentrations:**
To revise the Bachelor of Education program requirements for the Elementary/Middle Years, Sequential Music (Elementary/Middle Years), Indian Teacher Education Program (ITEP), and Saskatchewan Urban Native Teacher Education Program (SUNTEP-PA and SUNTEP-SK) program routes to allow Early Years methods courses as acceptable methods course equivalents.

To add “Early Years,” “Middle Years,” and “Early/Middle Years” concentrations to the Early/Middle Years, Sequential Music, Indian Teacher Education Program (ITEP), and Saskatchewan Urban Native Teacher Education Program (SUNTEP-PA, and SUNTEP-SK) Bachelor of Education program routes.

**Rationale:** The pre-K-12 school system and teacher education research/literature have updated policy, programming and terminology to reflect a focus on early years education, rather than elementary education. This change also is reflected in the terminology of the Ministry of Education's sector plan that delineates provincial education goals for early learning. The proposed change continues to respect middle years as a significant concentration in the Bachelor of Education program but opens up flexibility to be able to target programming with equivalent teaching methods courses that focus on early years education and/or middle years education. The change to field of specialization is proposed to reflect current understandings and move away from outdated terminology.

With the proposed change, students will be able to choose a concentration that ensures that required teaching methods courses within the Bachelor of Education program are focused on unique grade levels [early years (pre-K-Gr. 3) or middle years (Gr. 4-8)]. These concentrations can then be printed on student academic transcripts to facilitate career ambitions and employment opportunities. By maintaining a concentration of early years/middle years, smaller
program routes (SUNTEP, ITEP, regional colleges) maintain the flexibility to offer equivalent methods courses targeted to either early years or middle years.

For the purposes of this proposal, the various levels are defined as:
- Early Years: Prekindergarten to Grade 3
- Middle Years: Grades 4 to 8
- Early/Middle Years: Prekindergarten to Grade 8
- Secondary: Grades 9 to 12

Teaching Area 1 (Major) and Teaching Area 2 (Minor) will still be applicable to all program routes and concentrations. These changes will not impact the Secondary level Bachelor of Education program routes. The current name, requirements, and concentrations for the Secondary level will be retained.

These changes will help to facilitate attempts by the Field Experience staff to place teacher candidates in practicum placements for the grade level that corresponds to their concentration (e.g., Early Years = PreK-Grade 3; Middle Years = Grades 4-8; and, Secondary = Grades 9-12).

There will be no programmatic impact on faculty, or staff, nor will there be any effect on other programs, departments, colleges or centres. The largest impact will be changes to university-wide systems that necessitate editing of forms, fields, and/or other system designations where program name must be changed. There are no resource implications for the library, physical facilities, or information technology. External impact is reputational, in that the inclusion of these concentrations reflects updated notions of program levels and moves away from terminology that is outdated across the education system.

**Program Requirements**

**Elementary/Middle Years Early/Middle Years Program Requirements (120 credit units)**

Teacher candidates intending to become certified to teach children in elementary schools must complete the following program requirements:

**Years 1 & 2 (60 credit units)**

- EDLC 101.0
- EDLC 102.0
- EDLC 201.0
- EDLC 202.0
- EFDT 101.3
- ECUR 163.3 or ECUR 164.3
- EPSE 202.3
- EFDT 265.3 or ECUR 265.3

**Choose 6 credit units of junior-level English:**
Please Note: not required if English Language Arts is a Teaching Area. If Modern Languages is a Teaching Area, choose 3 credit units of junior level English. If both English and Modern Languages are Teaching Areas, none of these 6 credits are required.

- **100-Level ENG Courses**

  **Choose 3 credit units of Mathematics or Statistics:**

  Please Note: not required if Mathematics/Statistics is a Teaching Area.

  - ECON 204.6
  - ECON 450.3
  - GEOG 302.3
  - PLSC 214.3
  - PSY 233.3
  - PSY 234.3
  - SOC 225.3
  - SOC 325.3
  - 100-Level, 200-Level, 300-Level or 400-Level MATH Courses
  - 100-Level, 200-Level, 300-Level or 400-Level STAT Courses

  **Choose 3 credit units of Indigenous Studies:**

  Please Note: not required if Indigenous Studies or Social Studies/Social Sciences are Teaching Areas.

  - SOC 203.3
  - SOC 219.3
  - SOC 320.3
  - SOC 341.3
  - 100-Level, 200-Level, 300-Level or 400-Level INDG Courses

  **Choose 3 credit units of Social Sciences/Social Studies:**

  Please Note: not required if Social Sciences/Social Studies or Indigenous Studies is a Teaching Area.

  - CLAS 110.3
  - CLAS 111.3
  - CLAS 220.3
  - CLAS 225.3
  - CLAS 240.3
  - CLAS 242.3
  - CLAS 247.3
  - CLAS 248.3
  - GEOG 130.3
  - GEOG 202.3
• GEOG 204.3
• GEOG 208.3
• GEOG 240.3
• GEOG 280.3
• GEOG 340.3
• GEOG 364.3
• GEOG 381.3
• GEOG 385.3
• GEOG 386.3
• GEOG 486.3
• GEOG 491.3
• PLAN 341.3
• PLAN 342.3
• PLAN 343.3
• PLAN 346.3
• PLAN 350.3
• PLAN 442.3
• PLAN 446.3
• 100-Level, 200-Level, 300-Level or 400-Level ANTH Courses
• 100-Level, 200-Level, 300-Level or 400-Level CMRS Courses
• 100-Level, 200-Level, 300-Level or 400-Level CTST Courses
• 100-Level, 200-Level, 300-Level or 400-Level ECON Courses
• 100-Level, 200-Level, 300-Level or 400-Level HIST Courses
• 100-Level, 200-Level, 300-Level or 400-Level INDG Courses
• 100-Level, 200-Level, 300-Level or 400-Level IS Courses
• 100-Level, 200-Level, 300-Level or 400-Level PHIL Courses
• 100-Level, 200-Level, 300-Level or 400-Level POLS Courses
• 100-Level, 200-Level, 300-Level or 400-Level PSY Courses
• 100-Level, 200-Level, 300-Level or 400-Level RLST Courses
• 100-Level, 200-Level, 300-Level or 400-Level SOC Courses
• 100-Level, 200-Level, 300-Level or 400-Level WGST Courses

Choose 3 credit units of Fine Arts:

Please Note: not required if Arts Education is a Teaching Area.

• KIN 150.3
• 100-Level, 200-Level, 300-Level or 400-Level ART Courses
• 100-Level, 200-Level, 300-Level or 400-Level ARTH Courses
• 100-Level, 200-Level, 300-Level or 400-Level DRAM Courses
• 100-Level, 200-Level, 300-Level or 400-Level MUS Courses

Choose 3 credit units of Kinesiology:

Please Note: not required if Physical Education is a Teaching Area.

• KIN 121.3
Choose 3 credit units of Science:

Please Note: not required if Science is a Teaching Area. *PLSC 214 is not acceptable toward this requirement.

- KIN 122.3
- KIN 146.3

- EVSC 210.3
- EVSC 220.3
- EVSC 380.3
- EVSC 420.3
- EVSC 430.3
- GEOG 120.3
- GEOG 125.3
- GEOG 233.3
- GEOG 235.3
- GEOG 271.3
- GEOG 280.3
- GEOG 322.3
- GEOG 323.3
- GEOG 325.3
- GEOG 328.3
- GEOG 335.3
- GEOG 351.3
- GEOG 423.3
- GEOG 490.3
- GEOE 375.3
- INDG 241.3
- NUTR 120.3
- PHPY 301.3
- PHPY 302.3
- PHPY 303.3
- PHPY 304.3
- PHPY 305.3
- PHPY 308.3
- PHPY 401.3
- PHPY 403.3
- PHPY 405.3
- PHPY 432.3
- TOX 300.3
- 200-Level, 300-Level or 400-Level ACB Courses
- 100-Level, 200-Level, 300-Level or 400-Level ARCH Courses
- 100-Level, 200-Level, 300-Level or 400-Level ASTR Courses
- 200-Level, 300-Level or 400-Level BIOC Courses
- 100-Level, 200-Level, 300-Level or 400-Level BIOL Courses
- 100-Level, 200-Level, 300-Level or 400-Level BMSC Courses
- 100-Level, 200-Level, 300-Level or 400-Level CHEM Courses
- 100-Level, 200-Level, 300-Level or 400-Level CMPT Courses
- 100-Level, 200-Level, 300-Level or 400-Level EVSC Courses
- 100-Level, 200-Level, 300-Level or 400-Level GEOL Courses
- 100-Level, 200-Level, 300-Level or 400-Level HSC Courses
- 100-Level, 200-Level, 300-Level or 400-Level MCIM Courses
- 100-Level, 200-Level, 300-Level or 400-Level PHYS Courses
- 100-Level, 200-Level, 300-Level or 400-Level PLSC Courses

**Electives - English Language Arts, Social Sciences/Social Studies, and Indigenous Studies Teaching Areas only**

Please Note: If both English and Modern Languages are Teaching Areas, none of these credit units are required.

- Choose 6 credit units of 100- to 400-level open electives, if English Language Arts AND Indigenous Studies or Social Sciences/Social Studies are Teaching Areas 1 and 2.
- Choose 3 credit units of 100- to 400-level open electives, if English Language Arts OR Indigenous Studies OR Social Sciences/Social Studies are Teaching Areas 1 or 2.
- Please Note: This requirement must be completed by using 3 or 6 credit unit courses.

**Teaching Areas**

Teacher candidates are required to complete a specific number of credit units in at least two teaching areas (disciplinary fields) that are tightly aligned with Saskatchewan pre-Kindergarten to grade twelve curriculum areas.

Teaching areas must be chosen from a defined set of subjects and courses, approved by both the College of Education and the Saskatchewan Professional Teachers Regulatory Board (SPTRB).

All elementary/middle years option students must complete 18 credit units in Teaching Area 1 and 12 credit units in Teaching Area 2.

**Elementary Early/Middle Years- Teaching Area 1**

Students must complete 18 credit units of Teaching Area 1.

**Elementary Early/Middle Years- Teaching Area 2**

Students must complete 12 credit units of Teaching Area 2.

**Spring Term (after Year 2)**

- **EDST 213.0**

**Year 3 (30 credit units)**
**Education Courses**

- EFDT 301.3
- ECUR 309.3
- ECUR 310.3
- ECUR 312.3
- EFDT 313.3
- EDST 321.3
- EDST 322.3
- ECUR 322.3
- EPSE 348.3
- ECUR 382.3

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<thead>
<tr>
<th>Early Years</th>
<th>Middle Years</th>
<th>Early/Middle Years</th>
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<tbody>
<tr>
<td>ECUR 307.3</td>
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<td>Note: ECUR 307.3 must also be completed.</td>
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<tr>
<td>ECUR 314.3</td>
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<td>ECUR 312.3 or 314.3</td>
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<tr>
<td>ECUR 323.3</td>
<td>ECUR 322.3</td>
<td>ECUR 322.3 or 323.3</td>
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<tr>
<td>ECUR 383.3</td>
<td>ECUR 382.3</td>
<td>ECUR 382.3 or 383.3</td>
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</tbody>
</table>

**Year 4 (30 credit units)**

- EXPR 422.15
- EADM 303.3
- EPSE 390.3
- one of EADM 411.3 or ECUR 411.3 or EFDT 411.3 or EPSE 411.3

Choose 3 credit units from the following:

- EART 303.3
- ECUR 352.3
- ECUR 450.3

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<tr>
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<tr>
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<td>ECUR 353.3</td>
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<tr>
<td>ECUR 451.3</td>
<td>ECUR 450.3</td>
<td>ECUR 450.3 or 451.3</td>
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</tbody>
</table>

Choose 3 credit units of Education electives from the following:

- 100-Level, 200-Level, 300-Level or 400-Level EADM Courses
- 100-Level, 200-Level, 300-Level or 400-Level ECUR Courses
• 100-Level, 200-Level, 300-Level or 400-Level EFDT Courses
• 100-Level, 200-Level, 300-Level or 400-Level EPSE Courses
• 100-Level, 200-Level, 300-Level or 400-Level ETAD Courses
Bachelor of Education (B.Ed.) - Sequential Music

- Completion of the Bachelor of Music degree in Music Education (This satisfies 60 credit units of the B.Ed. Sequential Music program).

**Note:** For detailed information about the Bachelor of Music degree in Music Education, please see the [Music Education](#) section of the Course and Program Catalogue.

**Note:** For detailed information about admission requirements, please see [admission.usask.ca](http://admission.usask.ca).

Elementary/Middle-Years Early/Middle Years Program

The following 60 credit units are required:

**Year 1:**

- EFDT 301.3
- EPSE 302.3
- ECUR 309.3
- ECUR 310.3
- EFDT 313.3
- EDST 322.3
- ECUR 312.3
- ECUR 322.3
- ECUR 382.3

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<tr>
<td>ECUR 308.3</td>
<td>ECUR 310.3</td>
<td>ECUR 308.3 or 310.3 Note: ECUR 307.3 must also be completed.</td>
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<tr>
<td>ECUR 314.3</td>
<td>ECUR 312.3</td>
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<td>ECUR 323.3</td>
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<td>ECUR 322.3 or 323.3</td>
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<tr>
<td>ECUR 383.3</td>
<td>ECUR 382.3</td>
<td>ECUR 382.3 or 383.3</td>
</tr>
</tbody>
</table>

Choose 3 credit units of Education electives from the following:

- 100-Level, 200-Level, 300-Level or 400-Level EADM Courses
- 100-Level, 200-Level, 300-Level or 400-Level ECUR Courses
- 100-Level, 200-Level, 300-Level or 400-Level EFDT Courses
- 100-Level, 200-Level, 300-Level or 400-Level EPSE Courses
- 100-Level, 200-Level, 300-Level or 400-Level ETAD Courses

**Year 2:**
- **EADM 303.3**
- One of **EADM 411.3**, or **ECUR 411.3**, or **EFDT 411.3**, or **EPSE 411.3** or **EMUS 490.3**
- **EPSE 390.3**
- **EXPR 422.15**
- Choose one of **EART 303.3** or **ECUR 352.3** or **ECUR 450.3**

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

<table>
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<td>ECUR 450.3 or 451.3</td>
</tr>
</tbody>
</table>

Choose 3 credit units of Education electives from the following:

- **100-Level, 200-Level, 300-Level or 400-Level EADM Courses**
- **100-Level, 200-Level, 300-Level or 400-Level ECUR Courses**
- **100-Level, 200-Level, 300-Level or 400-Level EFDT Courses**
- **100-Level, 200-Level, 300-Level or 400-Level EPSE Courses**
- **100-Level, 200-Level, 300-Level or 400-Level ETAD Courses**
Indian Teacher Education Program (ITEP)

Elementary/Middle Years Program Requirements:
Information about the courses that count towards the Elementary/Middle Years Teaching Areas 1 and 2 is available under the “Bachelor of Education (B.Ed.)” program listing in this Catalogue (see Elementary/Middle Years Early/Middle Years Teaching Areas).

**Year 1 – 27 credit units**

- **EFDT 101.3**

Choose 6 credit units of junior-level English:

- **100-Level ENG Courses**

Choose 3 credit units of Fine Arts:

Arts Education courses from Elementary Teaching Areas 1 or 2

Choose 3 credit units of Science:

Science courses from Elementary Teaching Areas 1 or 2

Choose 6 credit units of electives:

Open Electives 100-400 level (must be compiled using 3 or 6 credit unit courses)

Choose junior level credit units of Indigenous Studies:

- **COMM 347.3**
- **SOC 203.3**
- **SOC 219.3**
- **SOC 320.3**
- **SOC 341.3**
- **100-Level, 200-Level, 300-Level or 400-Level INDG Courses**

Choose 3 credit units of Social Sciences/Social Studies:

- Social Sciences/Social Studies courses from Elementary Teaching Areas 1 or 2

**Year 2 – 36 credit units**

- **EPSE 202.3**
- **EFDT 301.3**
- **EFDT 313.3**
- **ECUR 309.3**
- **ECUR 316.3 or ECUR 312.3**
- **EDST 321.3**
Choose 3 credit units of Mathematics or Statistics:

- ECUR 311.3
- 100-Level, 200-Level, 300-Level or 400-Level MATH Courses
- 100-Level, 200-Level, 300-Level or 400-Level STAT Courses

Choose 3 credit units of Kinesiology:

- KIN 121.3 or KIN 122.3 or KIN 146.3

Choose 6 credit units from the following: Elementary - Teaching Area 1

Choose 6 credit units from the following: Elementary - Teaching Area 2

**Year 3 – 33 credit units**

- ECUR 307.3 or ECUR 309.3
- ECUR 308.3 or ECUR 310.3 (Note: ECUR 307.3 must also be completed.)
- ECUR 322.3 or ECUR 323.3
- ECUR 382.3 or ECUR 383.3
- Choose 3 credit units from the following:
  - one of EART 303.3 or EART 304.3
  - ECUR 352.3 or EART 353.3
  - ECUR 450.3 or ECUR 451.3
  - EIND 380.3
- EDST 322.3

Choose 12 credit units from the following: Elementary - Teaching Area 1

Choose 6 credit units from the following: Elementary - Teaching Area 2

**Year 4 – 24 credit units**

- one of EADM 411.3, or ECUR 411.3, or EFDT 411.3, or EPSE 411.3
- EADM 303.3
- EPSE 390.3
- EXPR 422.15
  - or EXPR 423.3 or EXPR 424.3 and EXPR 425.12
Program Requirements
SUNTEP Prince Albert (120 credit units):

Early/Middle Years Program Requirements
Information about the courses that count towards the Elementary/Middle Years Early/Middle Years Teaching Areas 1 and 2 is available under the “Bachelor of Education (B.Ed.)” program listing in this Catalogue (see Elementary/Middle Years Early/Middle Years Teaching Areas).
Note: Indigenous Studies is Teaching Area 1 and English Language Arts is Teaching Area 2.

Year 1 - 30 credit units

Non-Credit Support Courses:
- ENG 99.0
- MATH 99.0

Required Education Courses:
- EFDT 101.3
- EPSE 202.3

Choose 3 credit units of junior level English:
- 100-Level ENG Courses

Choose 3 credit units of Fine Arts:
- Arts Education courses from Elementary Teaching Areas 1 or 2

Choose 3 credit units of electives:
- Open Electives 100-400 level (must be compiled using 3 or 6 credit unit courses)

Choose 6 credit units of Indigenous Studies:
- 100-Level, 200-Level, 300-Level or 400-Level INDG Courses

Choose 3 credit units of senior level Indigenous Studies:
- 200-Level, 300-Level or 400-Level INDG Courses

Choose 3 credit units of Kinesiology:
- KIN 121.3 or KIN 122.3 or KIN 146.3

Choose 3 credit units of Mathematics or Statistics:
- ECUR 311.3
• 100-Level, 200-Level, 300-Level or 400-Level MATH Courses
• 100-Level, 200-Level, 300-Level or 400-Level STAT Courses

Year 2 - 36 credit units

Required Education Courses:

• ECUR 307.3 or ECUR 309.3
• ECUR 308.3 or ECUR 310.3 (Note: ECUR 307.3 must also be completed.)
• ECUR 316.3
• ECUR 322.3 or ECUR 323.3
• one of EIND 380.3 or EART 303.3 or ECUR 352.3 or ECUR 450.3
• EDST 321.3

Choose 3 credit units from the following:

• EIND 380.3
• EART 303.3 or EART 304.3
• ECUR 352.3 or EART 353.3
• ECUR 450.3 or ECUR 451.3

Choose 3 credit units of junior level English:

• 100-Level ENG Courses

Choose 3 credit units of Science:

• Science courses from Elementary Teaching Areas 1 or 2

Choose 6 credit units senior level Indigenous Studies courses:

• 200-Level, 300-Level or 400-Level INDG Courses

Choose 6 credit units of electives:

• Open Electives 100-400 level (must be compiled using 3 or 6 credit unit courses)

Year 3 - 30 credit units

Required Education Courses:

• EFDT 301.3
• EADM 303.3
• EFDT 313.3
• ECUR 382.3 or ECUR 383.3
• EDST 322.3
• EPSE 390.3
Choose 3 credit units senior level Indigenous Studies courses:

- 200-Level, 300-Level or 400-Level INDG Courses

Choose 6 credit units of senior level English:

- 200-Level, 300-Level or 400-Level ENG Courses

Choose 3 credit units of electives:

- Open Electives 100-400 level (must be compiled using 3 or 6 credit unit courses)

Year 4 - 24 credit units

Required Education Course:

- EXPR 422.15

Choose 3 credit units from the following:

- 100-Level, 200-Level, 300-Level or 400-Level EADM Courses
- 100-Level, 200-Level, 300-Level or 400-Level ECUR Courses
- 100-Level, 200-Level, 300-Level or 400-Level EFDT Courses
- 100-Level, 200-Level, 300-Level or 400-Level EPSE Courses
- 100-Level, 200-Level, 300-Level or 400-Level ETAD Courses

Choose 6 credit units of electives:

- Open Electives 100-400 level (must be compiled using 3 or 6 credit unit courses)
SUNTEP Saskatoon – Elementary Early/Middle Years (120 credit units):

Information about the courses that count towards the Elementary/Middle Years Teaching Areas 1 and 2 is available under the “Bachelor of Education (B.Ed.)” program listing in this Catalogue (see Elementary/Middle Years Teaching Areas). Indigenous Studies and Social Sciences/Social Studies are typically the Teaching Area 1 options offered by SUNTEP Saskatoon.

**Year 1 - 30 credit units**

**Non-Credit Support Courses:**

- ENG 99.0
- MATH 99.0

**Required Courses:**

- EFDT 101.3
- EFDT 313.3
- INDG 107.3

Choose 6 credit units of junior level English:

- 100-Level ENG Courses

Choose 3 credit units of Fine Arts:

- Arts Education courses from Elementary Teaching Areas 1 or 2

Choose 3 credit units of Social Sciences/Social Studies:

- Social Sciences/Social Studies courses from Elementary Teaching Areas 1 or 2

Choose 3 credit units of Kinesiology:

- KIN 121.3 or KIN 122.3 or KIN 146.3

Choose 6 credit units of electives:

- Open Electives 100-400 level (must be compiled using 3 or 6 credit unit courses)

**Year 2 - 30 credit units**

**Required Courses:**

- ECUR 307.3 or ECUR 309.3
- ECUR 316.3
- EFDT 301.3
Choose 3 credit units of Natural Science:

- Science courses from Elementary Teaching Areas 1 or 2

Choose 3 credit units of Mathematics or Statistics:

- **ECUR 311.3**
- 6 credit units of Elementary - Teaching Area 1*
- **100-Level, 200-Level, 300-Level or 400-Level MATH Courses**
- **100-Level, 200-Level, 300-Level or 400-Level STAT Courses**

* Substitute with open electives if Teaching Areas are complete.

**Spring Term (after Year 2) - 3 credit units**

- **EDST 321.3**

**Year 3 - 30 credit units**

**Required Courses:**

- **ECUR 308.3 or ECUR 310.3** *(Note: ECUR 307.3 must also be completed.)*
- **ECUR 382.3 or ECUR 383.3**
- **ECUR 322.3 or ECUR 323.3**
- one of **EART 303.3 or ECUR 352.3 or ECUR 450.3**

Choose 3 credit units from the following:

- **EART 303.3** or EART 304.3
- **ECUR 352.3** or EART 353.3
- **ECUR 450.3** or ECUR 451.3

- 6 credit units of Elementary - Teaching Area 1*
- 12 credit units of Elementary - Teaching Area 2*

* Substitute with open electives if Teaching Areas are complete.

**Spring Term (after Year 3) - 3 credit units**

- **EDST 322.3**
Year 4 - 24 credit units

- EXPR 422.15
- EPSE 390.3
- EADM 303.3
- EFDT 435.3
FOR APPROVAL

The following items have been approved by the Undergraduate Academic Programs Committee within the College of Engineering and are being submitted to University Course Challenge for approval.

School of Professional Development

Motion: to approve the creation of GE 450.3 Technology Innovation Management.
GE 450.3 – 1(3L)
Technology Innovation Management

This is a course on the management of technology innovation. It explores the processes by which technology is developed, and how those processes can be managed to garner successful business outcomes. The course covers theories of tech innovation and of how to manage such processes, as well as case studies of successes and failures. Students will learn how to develop their own plan for managing technology that they develop and innovate.

Rationale: course is included as part of a new Technological Innovation Certificate program.

Motion: to approve the creation of GE 451.1 Guest Seminar Series.
GE 451.1 – 1(1L)
Intellectual Property Fundamentals

This course includes a survey of key aspects of Canadian intellectual property law and intellectual property-related international undertakings. It is meant for non-law students. Included will be discussions on substantive intellectual property regimes such as copyright, industrial design, integrated circuit topographies, trademarks, patents, and, perhaps, plant breeder’s rights (depending upon class composition). Also considered will be laws of confidential information and trade secrecy, means of transferring intellectual properties and other transactions, remedies for circumstances of infringement, and pertinent University of Saskatchewan policies.

Rationale: course is included as part of a new Technological Innovation Certificate program.

Motion: to approve the creation of GE 490.1 Guest Seminary Series
GE 490.1 – 1(1L)
Guest Seminar Series

This is a seminar course featuring guest speakers. The guest speakers will present on tech innovation, most often in a Saskatchewan context, but not exclusively. The goal of the course is to inspire would-be tech innovators and to provide them with wisdom and knowledge to help them in their journey.

Rationale: course is included as part of a new Technological Innovation Certificate program.
Motion: to change the prerequisite of **CE 318.3**: Applied Engineering Mathematics

From: “Prerequisite(s): (CMPT 113 (taken) or and CE 225 (taken) and GE 213 (taken) and MATH 224 (taken)”

To: “Prerequisite(s): (CMPT 113 (taken) or CMPT 141.3 (taken)) and CE 225 (taken) and GE 213 (taken) and MATH 224 (taken)”.

Rationale: house-keeping item due to previous changes to CMPT requirements in the Civil Engineering program.

FOR INFORMATION

The following items have been approved by the Undergraduate Academic Programs Committee within the College of Engineering and are being submitted to University Course Challenge for information.

**Department of Civil, Geological, and Environmental Engineering**

Motion: to change the prerequisite of **CE 320.3**: Project Engineering

From: “Prerequisite(s): CE 295 or ENVE 201 and Prerequisite(s) or Corequisite(s): GE 348 and [at least 9 credit units from (CE 315 or CE 317 or CE 318 or CE 328)] or [EN 3 year common core and 39 credit units from EN senior courses])

To: “Prerequisite(s): CE 295 or ENVE 201 and Prerequisite(s) or Corequisite(s): GE 348”.

Rationale: housekeeping item to simplify prerequisite structure.

**Department of Chemical and Biological Engineering**

Motion: to change the term descriptor of **CHE 470.0**: Industrial Site Visitation from 1 / 2 (P) to 1 (P), effective 2019-05.

Motion: to change the requirements of the Chemical Engineering program by moving CHE 470.0: Industrial Site Visitation from being a required Year 4 Term 2 course to being a required Year 4 Term 1 course, effective 2019-05.

Rationale: housekeeping item for scheduling purposes.

**Department of Mechanical Engineering**

Motion: to add **ME 450.3**: Finite Element Analysis to the approved listed of technical electives (term 1 or term 2) in the Mechanical Engineering program, effective 2019-05.

Rationale: housekeeping item.

**School of Professional Development**

Motion: to change the prerequisite of **RCM 495.3**: Rhetorical Peer Mentorship

From: “Prerequisite(s): 6 credit units from RCM 400-level courses”
to:  “Prerequisite(s): 3 credit units from (RCM 400, RCM 401, RCM 402, RCM 404, RCM 406, RCM 407, RCM 408, RCM 409, and RCM 410)

Prerequisite or Corequisite(s): 6 additional credit units from (RCM 400, RCM 401, RCM 402, RCM 404, RCM 406, RCM 407, RCM 408, RCM 409, and RCM 410)”.

Rationale: housekeeping item.
Program Revisions

Chemical Engineering

Chemical Engineering deals chiefly with industrial processing to produce value-added products from raw materials. The processing of organic (crude oils, natural gas, lumber), inorganic (ores, air, salts) and biological (starches, cellulose, fats) materials into a wide range of useful commodity products, such as fuels, plastics, pharmaceuticals, fertilizers, and foods is carried out within a framework of environmental sustainability and concern for worker/public safety. Emphasis is on the design, construction and economic operation of equipment in these areas, and on related research and development. Some emphasis on environmental studies, mineral processing, petrochemicals and bio-chemicals is permitted through the choice of electives.

In addition to completing the regular program of study prescribed for a Bachelor of Science in Engineering (B.E.) program, undergraduate students registered in the Chemical Engineering major may also choose to complete one of the following three academic options: Biochemical Option, Mining and Mineral Processing Option, or a Petroleum Option. The requirements for each of these options are listed below.

All undergraduate students admitted to the College of Engineering are required to complete a common first-year of undeclared studies (known as the first-year common core). Once the first-year common core program has been completed, undergraduate students declare their preferences and compete for admission into an upper-year program. Students who are successful in securing admission into an upper-year program are required to follow the program of study that is prescribed at the time of their admission into the upper-year program.

Recognizing that course and program changes may result in a modification to the original program of study, it is recommended that undergraduate students consult an Academic Advisor within the Engineering Student Centre on a regular basis to confirm their program of study, choose courses (including electives), and monitor their academic progress.

Program Requirements

Bachelor of Science in Engineering (B.E.) - Chemical Engineering

Note: Students in the Chemical Engineering Undergraduate Program cannot use ENVE 201 as a substitute for CHEM 242.

Year 1 (34 credit units)
All Engineering programs have a common first year.

Year 2 (36 credit units)

Fall Term
- EE 204.3
Year 2 (25 - 28 credit units)

Fall Term
- CHE 210.3
- CHEM 221.3
- CHE 223.3
- CHEM 242.3 (If CHEM 115.3 has not been taken, it must be taken in this term.)

Winter Term
- CHE 210.3
- CHEM 221.3 or BMSC 240.3
- CMPT 113.3
- MATH 224.3
- 3 credit units Group A Elective (students must take CHEM 242.3 if it has not been taken in Fall Term)

Year 3 (32 - 35 credit units)

Fall Term
- CHE 323.3
- CHE 325.3
- CHEM 231.3
- GE 210.3

Winter Term
- CHE 315.3
- CHE 322.3
- CHE 324.3
- CHE 326.3
- CHE 333.2

Fall Term or Winter Term
- GE 348.3
- RCM 300.3
- 3 credit units Complementary Studies Elective (over year 3 or year 4)
- 6 credit units Group B Elective (over year 3 or year 4)

Year 4 (35 - 38 credit units)

Fall Term
- CHE 411.3
- CHE 414.2
- CHE 421.3
- CHE 423.3
- CHE 470.0

Winter Term
- CHE 470.0
- CHE 424.2
- GE 449.3
- 3 credit units Group B Elective or a 400-level approved Technical Elective from another Department

**Fall Term or Winter Term**
- CHE 431.1
- 6 credit units Group B Elective (over year 3 or year 4)
- 3 credit units Senior Humanities or Social Science Elective

**Fall Term and Winter Term**
- Six Credit Units From:
  - CHE 495.6
  - GE 495.6

### Bachelor of Science in Engineering (B.E.) - Biochemical Option

An "Option" within the College of Engineering is a prescribed set of courses that provides a concentration of specialized training in one particular field of study. Options are approved at the College level but are unique to Departments within the College, consisting of at least 18 credit units, none of which are core courses taken by all students within the Department.

This option provides specialization in sciences/engineering courses that apply to traditional bioprocessing industries such as food and beverage processing, enzyme production, biofuels and pharmaceuticals. Students wishing to complete this option must take **BMSC 240.3** in year 2 of the program.

### Required Biochemical Electives (18 credit units)

Please consult an academic advisor for assistance in choosing electives.

The Biochemical option courses can replace Group A and Group B Electives in the regular Chemical Engineering program. If a student successfully completes the option as listed below, the student will not have to take **CHEM 231.3** and can substitute it with an option course.

**18 credit units**
- **BMSC 200.3** (formerly **BIOC 200.3**)
- **FABS 212.3**
- **BMSC 240.3**
- **BIOC 310.3**
- **CHE 454.3**
- **CHE 461.3**

### Bachelor of Science in Engineering (B.E.) - Mineral Processing Option

An "Option" within the College of Engineering is a prescribed set of courses that provides a concentration of specialized training in one particular field of study. Options are approved at the College level but are unique to Departments within the College, consisting of at least 18 credit units, none of which are core courses taken by all students within the Department.
The Chemical and Biological Engineering Mineral Processing Option offers students the opportunity to take 6 courses within their Chemical engineering program that gives them a focus on the discipline of Mineral Processing. This option can replace Group A and Group B electives in the regular Chemical Engineering Program but will require students to take 6 CU above the regular Chemical Engineering Program.

**Requirements (18 credit units)**

**Required Courses (15 credit units)**
- GEOL 121.3 (replaces the Group A elective in Year 2)
- GEOL 224.3
- GEOE 377.3 (replaces the Group B elective in Year 3 or 4)
- CHE 369.3 (replaces the Group B elective in Year 3 or 4)
- CHE 469.3 (replaces the Group B elective in Year 3 or 4)

**Elective Courses (choose 3 credit units)**
- CHE 454.3 (replaces the Group B elective in Year 3 or 4)
- CHE 453.3 (replaces the Group B elective in Year 3 or 4)

**Bachelor of Science in Engineering (B.E.) - Petroleum Option**

An "Option" within the College of Engineering is a prescribed set of courses that provides a concentration of specialized training in one particular field of study. Options are approved at the College level but are unique to Departments within the College, consisting of at least 18 credit units, none of which are core courses taken by all students within the Department.

The petroleum option provides students the opportunity to take courses within the chemical engineering program that give them a focus on petroleum engineering, oil/gas engineering and bitumen upgrading. Students wishing to complete this option must take CHEM 221.3 in year 2 of the program.

**Required Petroleum Electives (21 credit units)**

Please consult an Academic Advisor for assistance in choosing electives.

The Petroleum Option courses can replace Group A and Group B electives in the regular Chemical Engineering program.

**Required Courses (12 credit units)**
- CHEM 221.3
- CHEM 231.3
- CHE 364.3
- GEOL 108.3 or GEOL 121.3

**Choose 9 credit units from the following:**
- CHE 453.3
- CHE 454.3
- CHE 460.3
- CHE 464.3
Elective Lists

Please consult an Academic Advisor. Some electives offered by other departments are given in alternate years.

Group A Elective List

- BMSC 200.3 (formerly BIOC 200.3)
- BIOC 300.3
- BIOC 310.3
- CHE 364.3
- CHEM 255.3
- CHEM 322.3
- CHEM 344.3
- CHEM 375.3
- CHEM 377.3
- CMPT 145.3
- CMPT 215.3
- FABS 212.3
- ME 214.3
- ME 324.3
- BIOL 120.3 or GEOL 121.3

Group B Elective List

- CHE 320.3
- CHE 369.3
- CHE 453.3
- CHE 454.3
- CHE 460.3
- CHE 461.3
- CHE 464.3
- CHE 469.3
- GEOE 377.3
- GEOE 466.3
- GEOE 466.3

Note: Some Group B electives are offered in alternating years while others are offered annually. Consult with a faculty advisor to determine the availability of specific electives.

Complementary Studies Elective

Elective list

- 100-Level, 200-Level, 300-Level or 400-Level ANTH Courses
- 100-Level, 200-Level, 300-Level or 400-Level ARBC Courses
- 100-Level, 200-Level, 300-Level or 400-Level ARCH Courses
- 100-Level, 200-Level, 300-Level or 400-Level ARTH Courses
- 100-Level, 200-Level, 300-Level or 400-Level CHIN Courses
- 100-Level, 200-Level, 300-Level or 400-Level CMRS Courses
- 100-Level, 200-Level, 300-Level or 400-Level CREE Courses
• 100-Level, 200-Level, 300-Level or 400-Level ENG Courses
• 100-Level, 200-Level, 300-Level or 400-Level FREN Courses
• 100-Level, 200-Level, 300-Level or 400-Level GERM Courses
• 100-Level, 200-Level, 300-Level or 400-Level GRK Courses
• 100-Level, 200-Level, 300-Level or 400-Level HEB Courses
• 100-Level, 200-Level, 300-Level or 400-Level HIST Courses
• 100-Level, 200-Level, 300-Level or 400-Level HNDI Courses
• 100-Level, 200-Level, 300-Level or 400-Level INDG Courses
• 100-Level, 200-Level, 300-Level or 400-Level JPNS Courses
• 100-Level, 200-Level, 300-Level or 400-Level LATN Courses
• 100-Level, 200-Level, 300-Level or 400-Level LING Courses
• 100-Level, 200-Level, 300-Level or 400-Level LIT Courses
• 100-Level, 200-Level, 300-Level or 400-Level POLS Courses
• 100-Level, 200-Level, 300-Level or 400-Level PSY Courses
• 400-Level RCM Courses
• 100-Level, 200-Level, 300-Level or 400-Level RLST Courses
• 100-Level, 200-Level, 300-Level or 400-Level RUSS Courses
• 100-Level, 200-Level, 300-Level or 400-Level SNSK Courses
• 100-Level, 200-Level, 300-Level or 400-Level SOC Courses
• 100-Level, 200-Level, 300-Level or 400-Level SPAN Courses
• 100-Level, 200-Level, 300-Level or 400-Level UKR Courses
• 100-Level, 200-Level, 300-Level or 400-Level WGST Courses
• COMM Select 100, 200, 300, or 400 Level
  • COMM 201.3
  • COMM 203.3
  • COMM 204.3
  • COMM 205.3
  • COMM 210.3
  • COMM 211.3
  • COMM 304.3
  • COMM 306.3
  • COMM 308.3
  • COMM 321.3
  • COMM 323.3
  • COMM 329.3
  • COMM 337.3
  • COMM 340.3
  • COMM 342.3
  • COMM 343.3
  • COMM 345.3
  • COMM 346.3
  • COMM 347.3
  • COMM 348.3
  • COMM 349.3
  • COMM 352.3
  • COMM 354.3
  • COMM 357.3
• ECON Select 100, 200, 300, or 400 Level
  - ECON 111.3
  - ECON 114.3
  - ECON 211.3
  - ECON 214.3
  - ECON 223.3
  - ECON 227.3
  - ECON 231.3
  - ECON 234.3
  - ECON 254.3
  - ECON 256.3
  - ECON 270.3
  - ECON 272.3
  - ECON 275.3
  - ECON 277.3
  - ECON 280.3
• GEOG Select 100, 200, 300, or 400 Level
  - GEOG 130.3
  - GEOG 202.3
  - GEOG 204.3
  - GEOG 208.3
  - GEOG 240.3
  - GEOG 280.3
• PHIL Select 100, 200, 300, or 400 Level
  - PHIL 120.3
  - PHIL 133.3
  - PHIL 140.3
  - PHIL 202.3
  - PHIL 206.3
  - PHIL 208.3
  - PHIL 209.3
  - PHIL 210.3
  - PHIL 211.3
  - PHIL 215.3
  - PHIL 218.3
  - PHIL 219.3
  - PHIL 224.3
  - PHIL 226.3
  - PHIL 227.3
  - PHIL 227.3
  - PHIL 231.3
  - PHIL 233.3
  - PHIL 234.3
  - PHIL 235.3
  - PHIL 236.3
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- PHIL 237.3
- PHIL 238.3
- PHIL 251.3
- PHIL 262.3
- PHIL 265.3
- PHIL 271.3
- PHIL 281.3
- PHIL 285.3
- PHIL 292.3
- PHIL 294.3
- PHIL 296.3
- Exception: CLAS 104.3 cannot be used to meet the Complementary Studies Elective Requirements of the program.
- Special Topics courses cannot be used to meet a Complementary Studies Elective Requirement (any course ending in 98 or 99).

Senior Humanities or Social Science Elective

Elective list
- 200-Level, 300-Level or 400-Level ANTH Courses
- 200-Level, 300-Level or 400-Level ARCH Courses
- 200-Level, 300-Level or 400-Level CLAS Courses
- 200-Level, 300-Level or 400-Level ECON Courses
- 200-Level, 300-Level or 400-Level ENG Courses
- 200-Level, 300-Level or 400-Level HIST Courses
- 200-Level, 300-Level or 400-Level INDG Courses
- 200-Level, 300-Level or 400-Level PHIL Courses
- 200-Level, 300-Level or 400-Level POLS Courses
- 200-Level, 300-Level or 400-Level PSY Courses
- 200-Level, 300-Level or 400-Level RLST Courses
- 200-Level, 300-Level or 400-Level SOC Courses
- 200-Level, 300-Level or 400-Level WGST Courses
- GEOG Select 200, 300, or 400 Level
- GEOG 202.3
- GEOG 204.3
- GEOG 208.3
- GEOG 240.3
- GEOG 280.3
- Exception: ECON 204.6 cannot be used to meet the Complementary Studies, Senior Humanities or Social Science elective requirements of the program.
- Exception: PSY 233.3 and PSY 236.3 cannot be used to meet the Complementary Studies, Senior Humanities or Social Science elective requirements of the program.
- Exception: PHIL 241.3 cannot be used to meet the Senior Humanities or Social Science elective requirements of the program.
- Exception: SOC 225.3 cannot be used to meet the Complementary Studies, Senior Humanities or Social Science elective requirements of the program.
- The following Engineering courses will also satisfy the Humanities/Social Science elective requirement: RCM 400.3, RCM 401.3, RCM 402.3, RCM 403.3, RCM 404.3, RCM 405.3, RCM 406.3, RCM 407.3, RCM 408.3, RCM 409.3, RCM 410.3, and RCM 495.3.
Please direct comments, questions, or concerns to:
Christopher Martin
Programs and Projects Officer
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College of Pharmacy and Nutrition – University Course Challenge, December 2018
The following curricular changes were approved by the College of Pharmacy & Nutrition Faculty
Council on December 7, 2018 and are being submitted for the December 2018 University
Course Challenge for information.

For Information
Minor Course Revisions

PHAR 185.4
SPEP 3: Introductory Community Pharmacy Practice Experience
This early experiential rotation occurs after completion of first year and before second year in
the program for a duration of 4 weeks (160 hours). Students will begin to participate in direct
patient care activities under the supervision of a qualified preceptor and will apply skills learned
in patient care courses.
Restriction(s): Admission to the Pharm.D. program in the College of Pharmacy & Nutrition.

Old Title: SPEP 3: Introductory Community Pharmacy Practice Experience
New Title: Experiential Learning: Introductory Community Pharmacy Practice Experience

Rationale: Experiential learning is the wording that is used in the current PharmD program and
curriculum.

PHAR 283.4
SPEP 6: Hospital Pharmacy Practice Experience
This early experiential education rotation occurs after completion of second year and before
third year for a 4 week (120 hour) duration. Students participate in direct patient care activities
to expand professional and patient care skills learned in previous practical experiences and
courses in a hospital practice setting under the supervision of a qualified preceptor.
Restriction(s): Completion of Year 1 of the Pharm.D. Program.

Old Title: SPEP 6: Hospital Pharmacy Practice Experience
New Title: Experiential Learning: Hospital Pharmacy Practice Experience

Old Number: 283.4
New Number: 285.4

Rationale: The new course number aligns with the current Experiential Learning course
numbering system. Experiential learning, rather than SPEP, is the wording used in the current
Pharm.D. program.
**NUTR 230.3 — 1(3L/S)**  
**Professional Practice I**  
**Current Catalogue Description:** An introduction to the profession of dietetics. Review of historical, political, social aspects of health care; health care structures; and current issues relating to the nutrition discipline and the dietetics profession.

**New Catalogue Description:** An introduction to the profession of dietetics. Topics include a survey of dietetic practice areas, group processes, professionalism, communication, Canadian healthcare system and current issues in the dietetics profession.

**Rationale:** To update and clarify course descriptions with current teaching.

**NUTR 330.3 — 1&2(1.5P/T)**  
**Professional Practice II**  
**Current Catalogue Description:** Begins the process of enabling students to articulate and document the required competencies for entry-level dietetic practice, based on experiences obtained in the Nutrition Resource and Volunteer Centre (NRVC). Introduction to self-directed learning; preparation of learning contracts outlining experiences to be completed to meet specific course objectives.  
**Prerequisite(s):** NUTR 230

**New Catalogue Description and revised prerequisite:** A focus on professional communications, philosophies of care, reflective practice, and requirements for registration as a dietetic health professional (e.g., dietetic standards of practice, regulations, entry-level practice competence). Self-directed experiential learning is guided; students prepare learning plans to meet specific course objectives related to achievement of entry-level dietetic competency and professionalism.  
**Prerequisite(s):** NUTR 230 and second year standing in the B.Sc.(Nutr.) program.

**Rationale:** To update and clarify course descriptions with current teaching.

**NUTR 366.3 — (3P)**  
**Food Service Management Practicum**  
This practicum provides the opportunity for the student to apply the principles of food service operations in the field, while under the supervision of a practicing Food Service Supervisor/Manager. Each student will complete a minimum of 15 days, full time, in a food service facility working with staff, and learning about production and service of meals to clients.  
**Restriction(s):** Only open to students in the B.Sc.(Nutr.) program  
**Prerequisite(s):** NUTR 365.3; Food Safe II; Immunizations and Criminal Record Check

**Current Note:** The course will be offered at various facilities within the Saskatoon Health Region (SHR), Regina Qu’Appelle Health Region (RQHR), as well as at other sites within the province. Sites may include nursing homes, educational institutions and smaller hospitals.
**New Note:** The course will be offered at various facilities within the Saskatchewan Health Authority as well as at other sites outside the SHA. Sites may include long-term care homes, educational institutions, and hospitals.

**Rationale:** To align with the health region changes to Saskatchewan Health Authority (and to add the agencies outside of SHA that students are regularly placed).

**NUTR 425.3**
Nutritional Assessment

**Current Catalogue Description:** Theory and methods of nutritional assessment for individuals and groups, including methods for assessment of dietary intake, biochemical, anthropometric, and clinical evaluation.

Restriction(s): Minimum third-year standing in the B.Sc.(Nutr.) Program

Corequisite(s): NUTR 441.3 and NUTR 442.3 (formerly NUTR 440.6)

**New Catalogue Description and Revised Corequisite:** Theory and methods of nutritional assessment for individuals, including methods for assessment of dietary intake, biochemical, anthropometric and clinical evaluation using the Nutrition Care Process.

Restriction(s): Minimum third-year standing in the B.Sc.(Nutr.) Program

Corequisite(s): NUTR 441.3 and **NUTR 442.3** (formerly NUTR 440.6)

**Rationale:** The catalogue description better reflects the current teaching in NUTR 425. NUTR 442.3 is only offered in term 2 after students complete NUTR 441 and NUTR 425 in Term 1.

**NUTR 430.3 — 1&2(1.5P/T)**
Professional Practice III

**Current Catalogue Description:** Builds on NUTR 330 by continuing the process of enabling students to articulate and document the required competencies for entry-level dietetic practice, based on experiences obtained in both formal learning and work/volunteer activities. Students are expected to complete a wide variety of increasingly challenging experiences, either through the NRVC or other agencies and organizations, aimed at meeting the specific objectives of the course.

**New Catalogue Description:** Students learn to work and communicate effectively in groups, develop personal leadership skills, adhere to professional standards, begin the process of dietetic continuing competence, apply foundational nutrition knowledge to experiential learning, and complete a variety of evidence-informed dietetic practice projects related to acquiring entry-level dietetic competency and professionalism with increasing levels of responsibility and accountability.

**Rationale:** To update and clarify course descriptions with current teaching.

**NUTR 531.30 — 1&2(C/T)**
**Professional Practice IV**

**Current Catalogue Description:** Thirty-six week practice-based experience with either Saskatoon Health Region or Regina Qu’Appelle Health Region (plus experiences in other health regions and Tribal Councils in the province). The course provides students with opportunities to acquire the knowledge, skills and behaviors required to practice as a dietitian. All areas of entry-level practice will be experienced across the spectrum of nutritional care.

**New Catalogue Description:** Thirty-six week practicum located primarily within the Saskatchewan Health Authority (SHA) with experiences in other organizations (for example, government, federal agencies, Tribal Councils, and non-profit groups). The course provides students with opportunities to acquire the knowledge, skills, and behaviors required to practice as a dietitian. All areas of entry-level practice will be experienced across the spectrum of dietetic practice.

**Rationale:** To align with the health region changes to Saskatchewan Health Authority (and to add the agencies outside of SHA that students are regularly placed).