

The following Motions and Documents were considered by the GFCPrograms Committee at its Thursday, March 14, 2024 meeting:

Agenda Title: Course, Minor Program, and Minor Regulation Changes

- Augustana
- Education
- Engineering
- Kinesiology, Sport and Recreation
- Pharmacy
- Rehabilitation Medicine
- School of Public Health
- Science

CARRIED MOTION:

THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the attached submissions from the Faculties of. Augustana- Education- Engineering- Kinesiology, Sport and Recreation- Pharmacy- Rehabilitation Medicine- School of Public Health- Science.

Final Item: 4.



FINAL ITEM NO. 4

Decision \boxtimes **Discussion** \square **Information** \square

ITEM OBJECTIVE: To approve course, minor program, and minor regulations changes for the Faculties of Augustana; Education; Engineering; Kinesiology, Sport and Recreation; Pharmacy; Rehabilitation Medicine; School of Public Health; and Science.

DATE	March 14, 2024	
ТО	GFC Programs Committee	
RESPONSIBLE PORTFOLIO	Provost and Vice-President (Academic)	

MOTION: THAT the GFC Programs Committee approve, with delegated authority from General Faculties Council, the attached submissions from the Faculties of Augustana; Education; Engineering; Kinesiology, Sport and Recreation; Pharmacy; Rehabilitation Medicine; School of Public Health; and Science.

EXECUTIVE SUMMARY:

All routine course, minor program, and minor regulation changes that do not involve or affect other Faculties or units, and do not form part of a proposal for a new program or a substantive program change, are approved regularly by the GFC Programs Committee in an omnibus motion.

See individual item for Faculty Council approval information.

Supporting Materials:

Attachments:

- 1. Augustana
- 2. Education
- 3. Engineering
- 4. Kinesiology, Sport and Recreation
- 5. Pharmacy
- 6. Rehabilitation Medicine
- 7. School of Public Health
- 8. Science



for Course Changes

See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Augustana - Department of Fine Arts and Humanities
Contact Person:	Jonathan Hawkins
Level of change: (choose one only) [?]	✓ Undergraduate
	Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The following course changes represent minor changes in course titles, numbers, descriptions and prerequisites arising out of the significant program changes of the last two years, and to ease course scheduling difficulties experienced by students from many senior-level courses only being offered in alternate years.

Current: Removed language	Proposed: New language
Subject & Number: AUART 230	Subject & Number: AUART 230
Title: Special Topics in Drawing	Title: Special Topics in Drawing
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours 0-6L-0	Approved Hours 0-6L-0
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts	Department AU Fine Arts
Typically Offered either term	Typically Offered either term
Description:	Description:
An introductory drawing course that explores	An introductory drawing course that explores
contemporary themes germane to other disciplines.	contemporary themes germane to other disciplines.
Prerequisite: Second year standing or consent of the	
instructor (based on portfolio submission).	

Subject & Number: AUART 231	Subject & Number: AUART 131
Title: Drawing I: A Basic Toolkit	Title: Drawing I: A Basic Toolkit
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours 0-6L-0	Approved Hours 0-6L-0
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts	Department AU Fine Arts
Typically Offered either term	Typically Offered either term
Description:	Description:
An introductory course focused exclusively on the practice	An introductory course focused exclusively on the practice
of drawing. Historical and contemporary techniques are	of drawing. Historical and contemporary techniques are
used to explore a balance of directly observed, and	used to explore a balance of directly observed, and
photography-based, subject matter. Prerequisite: Second	photography-based, subject matter. <u>Note: Credit may be</u>
year standing or consent of the instructor (based on	<u>obtained for only one of AUART 121 and AUART 231</u>
portfolio submission). Requires payment of additional	(2024). Requires payment of additional student
student instructional support fees. Refer to the Fees	instructional support fees. Refer to the Fees Payment
Payment Guide in the University Regulations and	Guide in the University Regulations and Information for
Information for Students section of the Calendar.	Students section of the Calendar.
Subject & Number: AUART 232	Subject & Number: AUART 232
Title: Drawing II: The Figure	Title: Drawing II: The Figure
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours 0-6L-0	Approved Hours 0-6L-0
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts	Department AU Fine Arts
Typically Offered either term	Typically Offered either term
Description:	Description:
Further exploration of drawing practice with the application of observational and conceptual skills that focuses on the figure. Includes an examination of anatomy, the portrait, and the expressive potential of the human form. Prerequisite: Second year standing and either 111, 231, 230 or consent of the instructor. Requires payment of additional student instructional support fees. Refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.	Further exploration of drawing practice with the application of observational and conceptual skills that focuses on the figure. Includes an examination of anatomy, the portrait, and the expressive potential of the human form. Prerequisite: <u>One of AUART 111, 131, 230, or 231 (2024)</u> . Requires payment of additional student instructional support fees. Refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.

Subject & Number: AUART 270	Subject & Number: AUART 270
Subject & Number: AOART 270	Subject & Number: AGART 270
Title: Special Topics in Painting	Title: Special Topics in Painting
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours 0-6L-0	Approved Hours 0-6L-0
Fee index 6	Fee index 6
Faculty Augustana Faculty Department AU Fine Arts	Faculty Augustana Faculty Department AU Fine Arts
Typically Offered either term	Typically Offered either term
Description:	Description:
An introductory painting course that explores	An introductory painting course that explores
contemporary themes germane to other disciplines. This	contemporary themes germane to other disciplines. This
is a water-based media course: ink and/or watercolour	is a water-based media course: ink and/or watercolour
and/or acrylic. Prerequisite: Second year standing or consent of the instructor (based on portfolio submission).	and/or acrylic.
Subject & Number: AUART 271	Subject & Number: AUART <u>171</u>
Title: Painting I: A Basic Toolkit (Oil)	Title: Painting I: A Basic Toolkit (Oil)
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours 0-6L-0	Approved Hours 0-6L-0
Fee index 6	Fee index 6
Faculty Augustana Faculty Department AU Fine Arts	Faculty Augustana Faculty Department AU Fine Arts
Typically Offered either term	Typically Offered either term
Description:	Description:
Painting from the ground up. The course introduces	Painting from the ground up. The course introduces
painting techniques in oil media. Perceptual and	painting techniques in oil media. Perceptual and
conceptual problems are based on historical and	conceptual problems are based on historical and
contemporary practices with an emphasis on personal creativity. Critical analysis of art is a component.	contemporary practices with an emphasis on personal creativity. Critical analysis of art is a component. <u>Note:</u>
Prerequisites: Second year standing. Requires payment of	Credit may be obtained for only one of AUART 171 and
additional student instructional support fees. Refer to the	AUART 271 (2024). Requires payment of additional
Fees Payment Guide in the University Regulations and	student instructional support fees. Refer to the Fees
Information for Students section of the Calendar.	Payment Guide in the University Regulations and
	Information for Students section of the Calendar.
Subject & Number: AUART 272	Subject & Number: AUART 272
Title: Painting II: Concepts and Approaches	Title: Painting II: Advanced Painting
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours 0-6L-0	Approved Hours 0-6L-0
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts Typically Offered either term	Department AU Fine Arts
	Typically Offered either term

Description: Further exploration of painting practice, using oil and/or acrylic painting techniques based on historical and contemporary resources. Critical analysis is included. Varieties of conceptual contexts and individual expressive directions are investigated. Prerequisite: AUART 271 or 270 or consent of the instructor (based on portfolio submission): Requires payment of additional student instructional support fees. Refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.	Description: Advanced painting course that further develops techniques (in oil) and concepts with a focus on contemporary practices, leading to self-initiated projects. Prerequisite: AUART 171 or AUART 271 (2024) or approval of instructor based on a portfolio submission. Requires payment of additional student instructional support fees. Refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.
Subject & Number: AUART 371	Subject & Number: AUART <u>372</u>
Title: Painting III: Contemporary Ideas In Painting	Title: Painting III: Contemporary Ideas In Painting
Course Career Undergraduate Units 3 Approved Hours 0-6L-0 Fee index 6 Faculty Augustana Faculty Department AU Fine Arts Typically Offered either term	Course Career Undergraduate Units 3 Approved Hours 0-6L-0 Fee index 6 Faculty Augustana Faculty Department AU Fine Arts Typically Offered either term
Description: Senior painting course that further develops techniques and concepts with a focus on contemporary practices, leading to self-initiated projects. Prerequisite: AUART 272 or approval of instructor based on a portfolio submission. Requires payment of additional student instructional support fees. Refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.	Description: Senior painting course that further develops techniques and concepts with a focus on contemporary practices, leading to self-initiated projects. Prerequisite: AUART 272 and approval of instructor. <u>Note: Credit may be obtained</u> for only one of AUART 372 and AUART 371 2024). Requires payment of additional student instructional support fees. Refer to the Fees Payment Guide in the University Regulations and Information for Students section of the Calendar.

REQUIRED: Augustana Faculty Council - December 1, 2023.

OPTIONAL: Augustana Curriculum Committee - November 22, 2023.



for Course Changes

See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Augustana - Department of Science
Contact Person:	Jonathan Hawkins
Level of change: (choose one only) [?]	✓ Undergraduate
	Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Now that the Augustana Science Foundations program has been fully phased out, these courses are no longer required and can be deleted.

Current: Removed language	Proposed: New language
Subject & Number: AUBIO 214	Course to be deleted
Title: Evolution and Biodiversity	
Course Career Undergraduate	
Units 3 Approved Hours 3-0-0	
Fee index 6	
Faculty Augustana Faculty	
Department AU Science	
Typically Offered either term	
Description:	
The course focuses on the evolution of biological	
diversity, including the mechanisms responsible for	
<mark>evolutionary change and the adaptations associated with</mark>	
the evolution of the major groups of organisms.	
Prerequisites: AUBIO 111 and AUSCI 115 (2022). Note:	
Credit may be obtained for only one of AUBIO 112, AUBIO 212 (2022) or AUBIO 214.	
212 (2022) OF AUDIO 214.	

Subject & Number: AUCHE 213	Course to be deleted
Title: General Chemistry Lab II	
Course Career Undergraduate	
Units 3	
<mark>Approved Hours 1-0-3</mark>	
Fee index 6	
<mark>Faculty</mark> Augustana Faculty	
Department AU Science	
Typically Offered either term	
Description:	
This lab course introduces students to fundamental	
concepts in chemistry and foundational chemistry lab	
techniques. Concepts include atomic structure, reaction	
kinetics and electrochemistry. Techniques include	
r <mark>udimentary reaction set-ups, analytical testing, product</mark>	
<mark>characterization and use of basic chemical laboratory</mark>	
instrumentation. Co-requisites: AUCHE 212.	
Subject & Number: AUCHE 214	Course to be deleted
Title: General Chemistry II	
Course Career Undergraduate	
Units 3	
Approved Hours 3-0-0	
Fee index 6	
<mark>Faculty</mark> Augustana Faculty	
<mark>Department AU Science</mark>	
Typically Offered either term	
Description:	
Continuation of AUCHE 110. Topics include atomic	
structure, periodic trends, reaction kinetics,	
thermodynamics, chemical equilibria, and hybrid theory.	
Prerequisite: AUCHE 110. Note: Credit may be obtained for	
only one of AUCHE 112, AUCHE 212 (2022) or AUCHE 214.	

REQUIRED: Augustana Faculty Council - November 3, 2023.

OPTIONAL: Augustana Curriculum Committee - October 25, 2023.



for Course Changes

See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Augustana - Department of Science
Contact Person:	Jonathan Hawkins
Level of change: (choose one only) [?]	✓ Undergraduate
	Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Introduction of a new course in the BSc - Computing Science and Mathematics program at Augustana.

Course Template

Current: Removed language	Proposed: New language
New	Subject & Number: AUCSC 325
	Title: Software Testing and Quality Assurance
	Course Career Undergraduate Units 3 Approved Hours 3-0-1.5 Fee index 6 Faculty Augustana Faculty Department AU Science Typically Offered either term
	Description: Introduces students to systematic testing of software systems and how to improve software reliability and quality, and sustainability. Topics include development and use of test cases, code inspection, coverage criteria, black box testing, white box testing, fuzzing, unit and regression testing, debugging and bug fixing process, performance, energy, and sustainability testing. Prerequisites: AUCSC 220 and AUMAT 250.

Reviewed/Approved by:

REQUIRED: Augustana Faculty Council - November 3, 2023.

OPTIONAL: Augustana Curriculum Committee - October 25, 2023.



for Course Changes

See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Augustana - Department of Science
Contact Person:	Jonathan Hawkins
Level of change: (choose one only) [?]	✓ Undergraduate
	Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The following course changes represent minor changes in course titles, number, descriptions and prerequisites arising out of Augustana Departments adjusting to the significant program changes of the last two years, and to ease course scheduling difficulties experienced by students from most senior-level courses only be offered in alternate years in the Environmental Science program.

Current: Removed language	Proposed: New language
Subject & Number: AUBIO 334	Subject & Number: AUBIO 334
Title: Research and Field Skills in Environmental Science	Title: Research and Field Skills in Environmental Science
Course Career Undergraduate Units 3 Approved Hours VARIABLE Fee index 6 Faculty Augustana Faculty Department AU Science Typically Offered either term	Course Career Undergraduate Units 3 Approved Hours VARIABLE Fee index 6 Faculty Augustana Faculty Department AU Science Typically Offered either term
Description: A 3-week field course that provides students an opportunity to develop skills in research and study design in the field of Environmental Science and Ecology. Students will live in a field camp to allow them to fully immerse themselves in their research projects, which could cover the range of ecology, botany, geography, environmental science, and/or environmental studies. Course content also includes instruction in key aspects of conservation biology and resource management. Prerequisites: AUSTA 215 and AUENV 120 or AUGEO 120 (2021), and one of AUENV 218, AUENV 230, AUGEO 218 (2021), AUGEO 230 (2021), AUENV 252, AUBIO 253. Notes: Credit may be obtained for only one of AUBIO 334, AUENV 334 and AUGEO 334 (2021).	Description: A 3-week field course that provides students an opportunity to develop skills in research and study design in the field of Environmental Science and Ecology. Students will <u>spend much of the course at the Augustana</u> <u>Miquelon Lake Research Station</u> to allow them to fully immerse themselves in their research projects, which could cover the range of ecology, botany, geography, environmental science, and/or environmental studies. Course content also includes instruction in key aspects of conservation biology and resource management. Prerequisites: <u>One of AUSTA 125, AUSTA 213, AUSTA 215,</u> and one of AUENV 218, AUENV 230, AUGEO 218 (2021), AUGEO 230 (2021), AUENV 252, AUBIO 253. Notes: Credit may be obtained for only one of AUBIO 334, AUENV 334 and AUGEO 334 (2021).

Subject & Number: AUENV 220	Subject & Number: AUENV 220
Title: Applications in Sustainability	Title: Foundations of Sustainability
Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Augustana Faculty Department AU Science Typically Offered either term	Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Augustana Faculty Department AU Science Typically Offered either term
Description An introductory course in the theoretical and applied aspects of sustainability as it relates to key categories of energy, food, water, pollution, waste and their impacts on the environment. Current technological advances and emerging initiatives based on lowering our ecological footprint provide a basis for examining sustainability science as it relates to environmental challenges in a changing world.	Description This course provides an introduction to the history of sustainability as a concept, contemporary sustainability issues, and some of the diverse perspectives that can be held approaching sustainability. The course will especially focus on introducing aspects of sustainable development especially as it relates to the implementation of the United Nations Sustainable Development Goals (SDGs) and provide coverage on the interconnections, trade-offs and barriers associated with them.
Subject & Number: AUENV 233	Subject & Number: AUENV 233
Title: Soil Science and Soil Resources	Title: Soil Science and Soil Resources
Course Career Undergraduate Units 3 Approved Hours 3-0-3/2 Fee index 6 Faculty Augustana Faculty Department AU Science Typically Offered either term	Course Career Undergraduate Units 3 Approved Hours <u>3-0-1.5</u> Fee index 6 Faculty Augustana Faculty Department AU Science Typically Offered either term
Description: Soil characteristics, formation, processes, occurrence, classification, and management in the natural and modified environment. Prerequisites: *3 course in AUBIO, AUCHE, AUENV, or AUPHY. Notes: Credit may be obtained for only one of AUENV 233 and AUGEO 233 (2021).	Description: Soil characteristics, formation, processes, occurrence, classification, and management in the natural and modified environment. Prerequisites: 3 <u>units</u> in AUBIO, AUCHE, AUENV, or AUPHY. Notes: Credit may be obtained for only one of AUENV 233 and AUGEO 233 (2021).

Subject & Number: AUENV 234	Subject & Number: AUENV 234
Title: Research and Field Skills in Environmental Science	Title: Research and Field Skills in Environmental Science
Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Augustana Faculty Department AU Science Typically Offered either term Description: An introductory methods-based course to establish	Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Augustana Faculty Department AU Science Typically Offered either term Description: An introductory methods-based course to establish
and develop methods and skills of the environmental science discipline while applying the scientific method in various ecosystems of Alberta. Prerequisite: AUENV 120.	and develop methods and skills of the environmental science discipline while applying the scientific method in various ecosystems of Alberta. Prerequisite: AUENV 120 or AUBIO 112.
Subject & Number: AUENV <mark>331</mark>	Subject & Number: AUENV <u>431</u>
Title: Science of the Climate Crisis	Title: Science of the Climate Crisis
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours 3-0-0	Approved Hours 3-0-0
Fee index 6	Fee index 6
Faculty Augustana Faculty Department AU Science	Faculty Augustana Faculty Department AU Science
Typically Offered either term	Typically Offered either term
Description:	Description:
Climate change is one of the greatest challenges facing humanity. This course provides students an opportunity to develop familiarity and critical reasoning about the empirical evidence for and science behind the global climate crisis. With a global reach, we will consider the international scope of climate change, but a focus will be placed on developing a Canadian context. This is a seminar-style course - one driven by discussion and in which students will take on leadership roles of introducing materials and guiding discussions. Prerequisites: AUENV-231; Third-year standing.	Climate change is one of the greatest challenges facing humanity. This course provides students an opportunity to develop familiarity and critical reasoning about the empirical evidence for and science behind the global climate crisis. With a global reach, we will consider the international scope of climate change, but a focus will be placed on developing a Canadian context. This is a seminar-style course - one driven by discussion and in which students will take on leadership roles of introducing materials and guiding discussions. Prerequisites: Third-year standing. <u>Note: Credit may</u> <u>be obtained for only one of AUENV 431 and AUENV</u>

Subject & Number: AUENV 334	Subject & Number: AUENV 334
Title: Research and Field Skills in Environmental Science	Title: Research and Field Skills in Environmental Science
Course Career Undergraduate Units 3 Approved Hours VARIABLE Fee index 6 Faculty Augustana Faculty Department AU Science Typically Offered either term	Course Career Undergraduate Units 3 Approved Hours VARIABLE Fee index 6 Faculty Augustana Faculty Department AU Science Typically Offered either term
Description: A 3-week field course that provides students an opportunity to develop skills in research and study design in the field of Environmental Science and Ecology. Students will live in a field camp to allow them to fully immerse themselves in their research projects, which could cover the range of ecology, botany, geography, environmental science, and/or environmental studies. Course content also includes instruction in key aspects of conservation biology and resource management. Prerequisites: AUSTA 215 and AUENV 120 or AUGEO 120 (2021), and one of AUENV 218, AUENV 230, AUGEO 218 (2021), AUGEO 230 (2021), AUENV 252, AUBIO 253. Notes: Credit may be obtained for only one of AUBIO 334, AUENV 334 and AUGEO 334 (2021).	Description: A 3-week field course that provides students an opportunity to develop skills in research and study design in the field of Environmental Science and Ecology. Students will <u>spend much of the course at the Augustana</u> <u>Miquelon Lake Research Station</u> to allow them to fully immerse themselves in their research projects, which could cover the range of ecology, botany, geography, environmental science, and/or environmental studies. Course content also includes instruction in key aspects of conservation biology and resource management. Prerequisites: <u>One of AUSTA 125, AUSTA 213, AUSTA 215,</u> and one of AUENV 218, AUENV 230, AUGEO 218 (2021), AUGEO 230 (2021), AUENV 252, AUBIO 253. Notes: Credit may be obtained for only one of AUBIO 334, AUENV 334 and AUGEO 334 (2021).
Subject & Number: AUENV 335	Subject & Number: AUENV 335
Title: Wildlife Ecology and Management Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Augustana Faculty Department AU Science Typically Offered either term	Title: Wildlife Ecology and Management Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Augustana Faculty Department AU Science Typically Offered either term
Description: Theory and practices in the study and management of wildlife populations and communities. Population dynamics, habitat assessment and management, conservation challenges, and emerging trends. Computational models and assignments aid theoretical understanding of material. Prerequisites: AUENV 252; AUBIO 253; AUSTA 215.	Description: Theory and practices in the study and management of wildlife populations and communities. Population dynamics, habitat assessment and management, conservation challenges, and emerging trends. Computational models and assignments aid theoretical understanding of material. Prerequisites: AUBIO 253; AUSTA 215.

REQUIRED: Augustana Faculty Council - November 3, 2023.

OPTIONAL: Augustana Curriculum Committee - October 25, 2023.



for Course Changes

See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Augustana - Department of Social Sciences
Contact Person:	Jonathan Hawkins
Level of change: (choose one only) [?]	✓ Undergraduate
	Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The following course changes represent minor changes in course titles, descriptions and prerequisites arising from instructional changes for some of the Physical Education courses offered by Augustana Faculty.

Current: Removed language	Proposed: New language
Subject & Number: AUPED 317	Subject & Number: AUPED 317
Title: Exercise in Special Populations	Title: Fitness Appraisal and Exercise Prescription
Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Augustana Faculty Department AU Social Sciences Typically Offered either term	Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Augustana Faculty Department AU Social Sciences Typically Offered either term
Description: This course will examine the use of physical activity in the treatment and/or prevention of chronic health conditions. There will be a particular focus on ageing, obesity, diabetes, and cardiovascular disease in class, with an opportunity to explore the therapeutic use of exercise in other chronic conditions independently. Prerequisites: AUPED 216, AUPED 314 or consent of the instructor.	Description: Study of both theoretical and practical skill-sets in the fundamentals of lifestyle appraisal and exercise prescription to assist individuals acquire health and well-being outcomes across all ages. There will be an opportunity to explore the therapeutic use of exercise in other chronic conditions independently. Prerequisites: AUPED 314 or consent of the instructor.

Subject & Number: AUPED 343	Subject & Number: AUPED 343
Title: <mark>Training Methodologies and Athletic Performance</mark>	Title: Physiological Factors and Principles of Human
	Performance
Course Career Undergraduate	
Units 3	Course Career Undergraduate
Approved Hours 3-0-0	Units 3
Fee index 6	Approved Hours 3-0-0
Faculty Augustana Faculty	Fee index 6
Department AU Social Sciences	Faculty Augustana Faculty
Typically Offered either term	Department AU Social Sciences
Descriptions	Typically Offered either term
Description:	Description:
Study of current training and conditioning methodologies	Description: Study of <u>the physiological factors and principles of</u>
used to prepare athletes. The course emphasizes	training affecting human performance. The course
physiological adaptation, specificity, and factors that	
influence the training process. Prerequisite: AUPED 314.	emphasizes physiological adaptation, specificity, and
Note: Open only to a student with a major or minor in	factors that influence the training process. Prerequisite: AUPED 314.
Physical Education.	
Subject & Number: AUPED 393	Subject & Number: AUPED 393
Title: Tests and Measurements in Physical Education	Title: Physiological Assessment of Human Fitness
	The Information of the second se
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours 3-0-0	Approved Hours 3-0-0
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Social Sciences	Department AU Social Sciences
Typically Offered either term	Typically Offered either term
Description:	Description:
Administration, construction, and analysis of tests and	Study of protocols and the physiological principles
measurements utilized in health and physical education.	underlying tests of fitness and performance assessment.
Descriptive and inferential statistics are emphasized.	Prerequisites: AUSTA 153; AUPED 314. Note: Students
Note: Students must have at least third year standing.	must have at least third year standing.

REQUIRED: Augustana Faculty Council - December 1, 2023.

OPTIONAL: Augustana Curriculum Committee - November 22, 2023.



for Course Changes

See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Augustana - Department of Science
Contact Person:	Jonathan Hawkins
Level of change: (choose one only) [?]	Undergraduate
	Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Introduction of new courses in Mathematics and Physics to support the BSc - Chemical and Physical Sciences program at Augustana.

Current: Removed language	Proposed: New language
New	Subject & Number: AUMAT 316 Title: Mathematical Methods in Physics Course Career Undergraduate Units 3
	Approved Hours 3-0-0 Fee index 6 Faculty Augustana Faculty Department AU Science Typically Offered either term
	Description: Senior topics in calculus and mathematical methods in physics. Topics include: coordinate systems; applications of single integrals; multiple integrals and applications; vector analysis; ordinary differential equations; partial differential equations; complex numbers. Prerequisites: AUMAT 216.

New	Subject & Number: AUPHY 170
	Title: Introduction to Astronomy
	Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Augustana Faculty Department AU Science Typically Offered either term
	Description: An exploration of the nature of our universe and the process and instruments by which we have come to our present understanding. Topics include: celestial motion: the solar system: electromagnetic radiation, telescopes, and detectors; stars; galaxies; formation and evolution.
New	Subject & Number: AUPHY 375
	Title: Astronomical Imaging and Measurement
	Course Career Undergraduate Units 3 Approved Hours 3-0-1.5 Fee index 6 Faculty Augustana Faculty Department AU Science Typically Offered either term
	Description: An introduction to observational astronomy utilizing the Hejse Observatory to image and measure objects such as the Moon, planets, stars, star clusters and nebulae. Topics include: telescopes; observatory operation; CCD cameras; astrophotography; image processing; photometry; spectroscopy; data reduction and Interpretation. Prerequisites: AUPHY 250, AUPHY 270

REQUIRED: Augustana Faculty Council - December 1, 2023.

OPTIONAL: Augustana Curriculum Committee - November 22, 2023.



for Course Changes

See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Augustana - Department of Fine Arts and Humanities
Contact Person:	Jonathan Hawkins
Level of change: (choose one only) [?]	✓ Undergraduate
	Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The proposed changes restructure the hours of classroom and language lab instruction, which will allow students more flexibility in their course scheduling. References to Language majors and minors which are no longer offered by Augustana are also removed.

Current: Removed language	Proposed: New language
Subject & Number: AUFRE 101	Subject & Number: AUFRE 101
Title: Beginners' French I	Title: Beginners' French I
Course Career Undergraduate Units 3 Approved Hours 4-0-0 Fee index 6 Faculty Augustana Faculty Department AU Fine Arts Typically Offered either term	Course Career Undergraduate Units 3 Approved Hours <u>3-0-1</u> Fee index 6 Faculty Augustana Faculty Department AU Fine Arts Typically Offered either term
Description: AUFRE 101 and 102 are designed to develop ability in reading and writing French, with a strong emphasis on the development of comprehension and oral communication skills. During this process the student participates in a wide variety of interactive activities and is also exposed to contemporary francophone culture. These two courses not only encourage the student to think critically about the principles of grammar as they relate to the French language, but also stimulate an in-depth understanding of the principles by which language functions in general. These two courses also lead the student through the steps of reflective learning as they consider and discuss language learning strategies. Notes: The course is not open to a student with credit in French 20, or to a student with French 30 or equivalent. AUFRE 101 does not count toward the major in Modern Languages or the minor in French.	Description: AUFRE 101 and 102 are designed to develop ability in reading and writing French, with a strong emphasis on the development of comprehension and oral communication skills. During this process the student participates in a wide variety of interactive activities and is also exposed to contemporary francophone culture. These two courses not only encourage the student to think critically about the principles of grammar as they relate to the French language, but also stimulate an in-depth understanding of the principles by which language functions in general. These two courses also lead the student through the steps of reflective learning as they consider and discuss language learning strategies. Notes: The course is not open to a student with credit in French 20, or to a student with French 30 or equivalent.

Subject & Number: AUFRE 102	Subject & Number: AUFRE 102
Title: Beginners' French II	Title: Beginners' French II
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours <mark>4-0-0</mark>	Approved Hours <u>3-0-1</u>
Fee index 6 Faculty Augustana Faculty	Fee index 6 Faculty Augustana Faculty
Department AU Fine Arts	Department AU Fine Arts
Typically Offered either term	Typically Offered either term
Description:	Description:
Continuation of AUFRE 101. Prerequisite: French 20 or	Continuation of AUFRE 101. Prerequisite: French 20 or
AUFRE 101 or consent of the instructor. Notes: The	AUFRE 101 or consent of the instructor. Notes: The
course is not open to a student with French 30 or	course is not open to a student with French 30 or
equivalent. AUFRE 102 does not count toward the major in Modern Languages or the minor in French.	equivalent.
Subject & Number: AUFRE 201	Subject & Number: AUFRE 201
Title: Intermediate French I	Title: Intermediate French I
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours 4 0 0	Approved Hours <u>3-0-1</u>
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts Typically Offered either term	Department AU Fine Arts Typically Offered either term
Description:	Description:
Intensive training in spoken and written French. The	Intensive training in spoken and written French. The
major focus is on communication. Prerequisite: French	major focus is on communication. Prerequisite: French
30 or AUFRE 102. Notes: A student wishing to register in	30 or AUFRE 102. Notes: A student wishing to register in
AUFRE 201 must first take an on-line placement test. The	AUFRE 201 must first take an on-line placement test. The
purpose of the test is to advise the student of the	purpose of the test is to advise the student of the
appropriate level at which to begin university French.	appropriate level at which to begin university French.
Subject & Number: AUFRE 202	Subject & Number: AUFRE 202
Title: Intermediate French II	Title: Intermediate French II
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours <mark>4-0-0</mark>	Approved Hours <u>3-0-1</u>
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts	Department AU Fine Arts
Typically Offered either term	Typically Offered either term
Description:	Description:
Further development of the speaking, reading, and	Further development of the speaking, reading, and
writing skills acquired in AUFRE 201. The major focus is	writing skills acquired in AUFRE 201. The major focus is
on formal grammar. Prerequisite: One of AUFRE 201;	on formal grammar. Prerequisite: One of AUFRE 201;

French 31a or 31b or 31c, with a sufficient score on the	French 31a or 31b or 31c, with a sufficient score on the
on-line placement test; French Language Arts 20 or 30	on-line placement test; French Language Arts 20 or 30
(equal to French immersion), with a sufficient score on	(equal to French immersion), with a sufficient score on
the on-line placement test; consent of the instructor.	the on-line placement test; consent of the instructor.
Subject & Number: AUGER 101	Subject & Number: AUGER 101
Subject & Number: ASSEN 101	
Title: Beginners' German I	Title: Beginners' German I
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours 4 0 0	Approved Hours <u>3-0-1</u>
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts	Department AU Fine Arts
Typically Offered either term	Typically Offered either term
Description:	Description:
German 101 and 102 are designed to develop ability in	German 101 and 102 are designed to develop ability in
reading and writing German, with a strong emphasis on	reading and writing German, with a strong emphasis on
the development of comprehension and oral	the development of comprehension and oral
•	
communication skills. During this process, the student	communication skills. During this process, the student
participates in a wide variety of interactive activities and	participates in a wide variety of interactive activities and
is also exposed to contemporary culture of	is also exposed to contemporary culture of
German-speaking countries. These two courses not only	German-speaking countries. These two courses not only
encourage the student to think critically about the	encourage the student to think critically about the
principles of grammar as they relate to the German	principles of grammar as they relate to the German
language, but also stimulate an in-depth understanding	language, but also stimulate an in-depth understanding
of the principles by which language functions in general.	of the principles by which language functions in general.
These two courses also lead the student through the	These two courses also lead the student through the
steps of reflective learning as they consider and discuss	steps of reflective learning as they consider and discuss
language learning strategies. Notes: The course is not	language learning strategies. Notes: The course is not
open to a student with credit in German 30. <mark>AUGER 101</mark>	open to a student with credit in German 30.
does not count toward the major in Modern Languages	
<mark>or the minor in German.</mark>	
Subject & Number: AUGER 102	Subject & Number: AUGER 102
Title: Beginners' German II	Title: Beginners' German II
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours <mark>4 0 0</mark>	Approved Hours <u>3-0-1</u>
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts	Department AU Fine Arts
Typically Offered either term	Typically Offered either term
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Description:	Description:
Continuation of AUGER 101. Prerequisite: AUGER 101.	Continuation of AUGER 101. Prerequisite: AUGER 101.
	Notes: The course is not open to a student with credit in
Notes: The course is not open to a student with credit in	
German 30. AUCER 102 does not count toward the major	German 30.
<mark>in Modern Languages or the minor in German.</mark>	

Subject & Number: AUGER 201	Subject & Number: AUGER 201
Title: Intermediate German I	Title: Intermediate German I
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours <mark>4-0-0</mark>	Approved Hours <u>3-0-1</u>
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts	Department AU Fine Arts
Typically Offered either term	Typically Offered either term
Description:	Description:
Designed to develop fluency in speaking, with emphasis	Designed to develop fluency in speaking, with emphasis
on comprehension and writing skills. The essential rules	on comprehension and writing skills. The essential rules
of grammar are studied. Prerequisite: One of AUGER 102,	of grammar are studied. Prerequisite: AUGER 102 or
demonstration of AUGER 102 equivalency by means of a	demonstration of AUGER 102 equivalency by means of a
placement examination administered by the instructor.	placement examination administered by the instructor.
Note: Credit may be obtained for only one of AUGER 200,	Note: Credit may be obtained for only one of AUGER 200,
201.	201.
Subject & Number: AUGER 202	Subject & Number: AUGER 202
Title: Intermediate German II	Title: Intermediate German II
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours <mark>4-0-0</mark>	Approved Hours <u>3-0-1</u>
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts	Department AU Fine Arts
Typically Offered either term	Typically Offered either term
Description:	Description:
Continuation of AUGER 201. Prerequisite: AUGER 201.	Continuation of AUGER 201. Prerequisite: AUGER 201.
Note: Credit may be obtained for only one of AUGER 202,	Note: Credit may be obtained for only one of AUGER 202,
200.	200.
Subject & Number: AUSCA 101	Subject & Number: AUSCA 101
Title: Beginners' Norwegian I	Title: Beginners' Norwegian I
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours <mark>4 0 0</mark>	Approved Hours <u>3-0-1</u>
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts	Department AU Fine Arts
Typically Offered either term	Typically Offered either term
Description:	Description:
AUSCA 101 and 102 are designed to develop ability in	AUSCA 101 and 102 are designed to develop ability in
reading and writing Norwegian, with a strong emphasis	reading and writing Norwegian, with a strong emphasis
on the development of comprehension and oral	on the development of comprehension and oral

participates in a wide variety of interactive activities and	participates in a wide variety of interactive activities and
is also exposed to contemporary Norwegian culture.	is also exposed to contemporary Norwegian culture.
These two courses not only encourage the student to	These two courses not only encourage the student to
think critically about the principles of grammar as they	think critically about the principles of grammar as they
relate to the Norwegian language, but also stimulate an	relate to the Norwegian language, but also stimulate an
in-depth understanding of the principles by which	in-depth understanding of the principles by which
language functions in general. These two courses also	language functions in general. These two courses also
lead the student through the steps of reflective learning	lead the student through the steps of reflective learning
as they consider and discuss language learning	as they consider and discuss language learning
strategies.	strategies.
Subject & Number: AUSCA 102	Subject & Number: AUSCA 102
Title: Beginners' Norwegian II	Title: Beginners' Norwegian II
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours 4-0-0	Approved Hours <u>3-0-1</u>
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts	Department AU Fine Arts
Typically Offered either term	Typically Offered either term
Description:	Description:
Continuation of AUSCA 101. Prerequisite: AUSCA 101.	Continuation of AUSCA 101. Prerequisite: AUSCA 101.
Subject & Number: AUSCA 201	Subject & Number: AUSCA 201
Title: Intermediate Norwegian I	Title: Intermediate Norwegian I
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours 4-0-0	Approved Hours <u>3-0-1</u>
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts	Department AU Fine Arts
Typically Offered either term	Typically Offered either term
Description:	Description:
Reading and study of selected texts in Norwegian	Reading and study of selected texts in Norwegian
literature and culture. Composition and conversation are	literature and culture. Composition_conversation and
emphasized. Prerequisite: AUSCA 102 or Consent of the	intercultural competence are emphasized. Prerequisite:
Instructor.	AUSCA 102 or Consent of the Instructor.
Subject & Number: AUSCA 202	Subject & Number: AUSCA 202
Title: Intermediate Norwegian II	Title: Intermediate Norwegian II
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours <u>4-0-0</u>	Approved Hours <u>3-0-1</u>
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts	Department AU Fine Arts
Typically Offered either term	Typically Offered either term

Description:	Description:
Continuation of AUSCA 201. Prerequisite: AUSCA 201.	Continuation of AUSCA 201. Prerequisite: AUSCA 201 or
	consent of the instructor.
Subject & Number: AUSPA 101	Subject & Number: AUSPA 101
Title: Beginners' Spanish I	Title: Beginners' Spanish I
5	5
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours 4-0-0	Approved Hours <u>3-0-1</u>
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts	Department AU Fine Arts
Typically Offered either term	Typically Offered either term
Typically officied entire term	Typically officied entitier term
Description:	Description:
Introduction to the essentials of the Spanish language	Introduction to the essentials of the Spanish language
designed to develop ability in speaking and writing, with	designed to develop ability in speaking and writing, with
a strong emphasis on the development of oral	a strong emphasis on the development of oral
communication skills. Note: Credit may be obtained for	communication skills. Note: Credit may be obtained for
only one of AUSPA 101 and 103.	only one of AUSPA 101 and 103.
Subject & Number: AUSPA 102	Subject & Number: AUSPA 102
Title: Beginners' Spanish II	Title: Beginners' Spanish II
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours <mark>4 0 0</mark>	Approved Hours <u>3-0-1</u>
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts	Department AU Fine Arts
Typically Offered either term	Typically Offered either term
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Description:	Description:
Continuation of AUSPA 101. Prerequisite: AUSPA 101.	Continuation of AUSPA 101. Prerequisite: AUSPA 101.
Note: Credit may be obtained for only one of AUSPA 102	Note: Credit may be obtained for only one of AUSPA 102
and 104.	and 104.
Subject & Number: AUSPA 201	Subject & Number: AUSPA 201
Subject & Number: AUSFA 201	Subject & Number, AUSPA 201
Title: Intermediate Spanish I	Title: Intermediate Spanish I
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours 4-0-0	Approved Hours <u>3-0-1</u>
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts	Department AU Fine Arts
	Typically Offered either term
Typically Offered either term	Typically Offered either term
Description:	Description:
Designed to consolidate basic Spanish language skills	Designed to consolidate basic Spanish language skills
through systematic grammar review and practice in	through systematic grammar review and practice in
various language skills. Prerequisite: Spanish 30 (or	various language skills. Prerequisite: Spanish 30 (or

equivalent), AUSPA 102 or 104. Note: Credit may be	equivalent), AUSPA 102 or 104. Note: Credit may be
obtained for only one of AUSPA 201 and 203.	obtained for only one of AUSPA 201 and 203.
Subject & Number: AUSPA 202	Subject & Number: AUSPA 202
Title: Intermediate Spanish II	Title: Intermediate Spanish II
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours <mark>4 0 0</mark>	Approved Hours <u>3-0-1</u>
Fee index 6	Fee index 6
Faculty Augustana Faculty	Faculty Augustana Faculty
Department AU Fine Arts	Department AU Fine Arts
Typically Offered either term	Typically Offered either term
Description:	Description:
Continuation of AUSPA 201. Prerequisite: AUSPA 201 or	Continuation of AUSPA 201. Prerequisite: AUSPA 201 or
203. Note: Credit may be obtained for only one of AUSPA	203. Note: Credit may be obtained for only one of AUSPA
202 and 204.	202 and 204.
	202 and 204.

REQUIRED: Augustana Faculty Council - November 3, 2023.

OPTIONAL: Augustana Curriculum Committee - October 25, 2023.



for Program and Regulation Changes See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Augustana - Department of Science
Contact Person:	Jonathan Hawkins
Level of change: (choose one only)	✓ Undergraduate
	Graduate
Type of change request: (check all that apply)	✓ Program
	Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	Yes

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

This change indicates where the proposed new AUCSC 325 course will be included in the Computing Science and Mathematics major.

Calendar Copy

URL in current Calendar (or "New page") https://calendar.ualberta.ca/preview_program.php?catoid=39&poid=47829	
Current Copy: Removed language	Proposed Copy: New language
 Major in Computing Science and Mathematics [Augustana] Requirements AUCSC 111 - Introduction to Computational Thinking and Problem Solving AUCSC 112 - Data Structures and Algorithms AUCSC 250 - Computer Organization and Architecture I AUCSC 310 - Algorithm Design and Analysis AUMAT 116 - Calculus Concepts and Modelling AUMAT 120 - Linear Algebra I AUMAT 216 - Intermediate Calculus AUMAT 240 - Introduction to Computational Methods 	 Major in Computing Science and Mathematics [Augustana] Requirements AUCSC 111 - Introduction to Computational Thinking and Problem Solving AUCSC 112 - Data Structures and Algorithms AUCSC 250 - Computer Organization and Architecture I AUCSC 310 - Algorithm Design and Analysis AUMAT 116 - Calculus Concepts and Modelling AUMAT 120 - Linear Algebra I AUMAT 216 - Intermediate Calculus AUMAT 240 - Introduction to Computational Methods

- AUMAT 250 Discrete Mathematics
 AUSCI 330 History and Theory of
- AUSCI 330 History and Theory of Computing
- AUSCI 430 Ethical Issues in Computing and Mathematics
- AUSTA 215 Statistical Methods for the Natural Sciences

Additional Requirements

- 3 units in AUBIO, AUCHE, AUENV, or AUPHY at the 100-level.
- 9 units in Fine Arts and Humanities, with at least 3 credits in each.
- 6 units in Social Sciences.

Computing Science Stream

Students in the Computing Science stream must also complete the following:

- AUCSC 220 Software Engineering I
- AUCSC 370 Programming Languages

18 units from

- AUCSC 204 Computing Technology in Modern Society
- AUCSC 218 Web Design, Development and Scripting
- AUCSC 320 Software Engineering II
- AUCSC 330 Database Management Systems I
- AUCSC 395 Directed Study I
- AUCSC 401 Professional Practicum I
- AUCSC 402 Professional Practicum II
- AUCSC 450 Parallel and Distributed Computing
- AUCSC 455 Networks and Security
- AUCSC 460 Artificial Intelligence
- AUCSC 480 Operating Systems Concepts
- AUCSC 495 Directed Study II

Computational and Applied Mathematics stream

Students in the Computational and Applied Mathematics stream must also complete the following:

- AUMAT 332 Dynamical Systems
- 9 units from

- AUMAT 250 Discrete Mathematics
- AUSCI 330 History and Theory of Computing
- AUSCI 430 Ethical Issues in Computing and Mathematics
- AUSTA 215 Statistical Methods for the Natural Sciences

Additional Requirements

- 3 units in AUBIO, AUCHE, AUENV, or AUPHY at the 100-level.
- 9 units in Fine Arts and Humanities, with at least 3 credits in each.
- 6 units in Social Sciences.

Computing Science Stream

Students in the Computing Science stream must also complete the following:

- AUCSC 220 Software Engineering I
- AUCSC 370 Programming Languages

18 units from

- AUCSC 204 Computing Technology in Modern Society
- AUCSC 218 Web Design, Development and Scripting
- AUCSC 320 Software Engineering II
- AUCSC 325 Software Testing and Quality
 Assurance
- AUCSC 330 Database Management Systems I
- AUCSC 395 Directed Study I
- AUCSC 401 Professional Practicum I
- AUCSC 402 Professional Practicum II
- AUCSC 450 Parallel and Distributed Computing
- AUCSC 455 Networks and Security
- AUCSC 460 Artificial Intelligence
- AUCSC 480 Operating Systems Concepts
- AUCSC 495 Directed Study II

Computational and Applied Mathematics stream

Students in the Computational and Applied Mathematics stream must also complete the following:

• AUMAT 332 - Dynamical Systems

9 units from

 AUMAT 320 - Numerical Linear Algebra AUMAT 328 - Cryptography AUMAT 350 - Optimization AUMAT 353 - Applied Probability 	 AUMAT 320 - Numerical Linear Algebra AUMAT 328 - Cryptography AUMAT 350 - Optimization AUMAT 353 - Applied Probability

 Augustana Faculty Council, November 3, 2023.

 Augustana Curriculum Committee, October 25, 2023.



for Program and Regulation Changes See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Augustana - Department of Fine Arts and Humanities
Contact Person:	Jonathan Hawkins
Level of change: (choose one only)	✓ Undergraduate
	Graduate
Type of change request: (check all that apply)	Program
	Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	Yes

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

This indicates how the proposed changes to a number of AUART courses would affect the Creativity and Culture program requirements, and adds AUMUS 239 as a possible course to fulfill the 200-level Text and Theory requirement.

Calendar Copy

URL in current Calendar (or "New page") https://calendar.ualberta.ca/preview_program.php?catoid=39&poid=47827	
Current Copy: Removed language	Proposed Copy: New language
Creativity and Culture Program	Creativity and Culture Program
Requirements [Augustana]	Requirements [Augustana]
Creativity and Culture combines the study of Text and	Creativity and Culture combines the study of Text and
Theory, Creative Practice, and Language and	Theory, Creative Practice, and Language and
requires a minimum of 63 units to complete; students	requires a minimum of 63 units to complete; students
who choose to pursue a specialization in Visual Art,	who choose to pursue a specialization in Visual Art,
Drama, or Music will require 75 units.	Drama, or Music will require 75 units.
Text and Theory elements are drawn from courses in	Text and Theory elements are drawn from courses in
Art History, Classical Studies, English, Music History,	Art History, Classical Studies, English, Music History,
Philosophy, Religion, and French, German, and	Philosophy, Religion, and French, German, and
Scandinavian Literature.	Scandinavian Literature.
Creative Practice elements include courses in Studio	Creative Practice elements include courses in Studio
Art, Creative Writing, Drama, and Music.	Art, Creative Writing, Drama, and Music.

The Language element will typically be satisfied by The Language element will typically be satisfied by French, German, Latin, or Norwegian language French, German, Latin, Norwegian or Spanish courses at the appropriate level for a student language courses at the appropriate level for a student Requirements Requirements 3 units at the 100-level in Text and Theory from: 3 units at the 100-level in Text and Theory AUENG 102 - Critical Reading, Critical Writing from: AUSCA 142 - Viking Age Mythology AUSCA 142 - Viking Age Mythology 3 units at the 100-level in Text and Theory from: 3 units at the 100-level in Text and Theory • AUART 100 - Introduction to Art History and from: Visual Culture • AUART 100 - Introduction to Art History and • AUMUS 170 - Tuning In: An Introduction to Visual Culture • AUMUS 170 - Tuning In: An Introduction to Music Music 6 units at the 100-level in Creative Practice 6 units at the 100-level in Creative Practice from: AUART 111 Making Art: First Steps from: • AUDRA 144 - Introduction to the Dramatic AUART 131 - Drawing I: A Basic Toolkit OR • AUART 171 - Painting I: A Basic Toolkit (Oil) Process • AUDRA 144 - Introduction to the Dramatic AUMUS 100 - Introduction to Music Theory Process OR • AUMUS 160 - Theoretical and Analytical Studies I • AUMUS 100 - Introduction to Music Theory Note: OR Students may only use one of AUMUS 100 or • AUMUS 160 - Theoretical and Analytical 160 to fulfill this requirement. Students intending Studies I to complete the Music Specialization must Note: complete AUMUS 160. Students may only use one of AUMUS 100 or to complete the Music Specialization must 6 units in a Language other than English from: • AUFRE 101 - Beginners' French I complete AUMUS 160. • AUFRE 102 - Beginners' French II AUFRE 201 - Intermediate French I • AUFRE 101 - Beginners' French I • AUFRE 202 - Intermediate French II • AUGER 101 - Beginners' German I • AUFRE 102 - Beginners' French II • AUGER 102 - Beginners' German II AUFRE 201 - Intermediate French I • AUFRE 202 - Intermediate French II AUGER 201 - Intermediate German I AUGER 202 - Intermediate German II AUGER 101 - Beginners' German I • AULAT 101 - Beginners' Latin I • AUGER 102 - Beginners' German II AUSCA 101 - Beginners' Norwegian I AUGER 201 - Intermediate German I • AUSCA 102 - Beginners' Norwegian II

- AUSCA 201 Intermediate Norwegian I
- AUSCA 202 Intermediate Norwegian II
- AUSPA 101 Beginners' Spanish I
- AUSPA 102 Beginners' Spanish II

AUENG 102 - Critical Reading, Critical Writing

160 to fulfill this requirement. Students intending

6 units in a Language other than English from:

- AUGER 202 Intermediate German II
- AULAT 101 Beginners' Latin I
- AUSCA 101 Beginners' Norwegian I
- AUSCA 102 Beginners' Norwegian II
- AUSCA 201 Intermediate Norwegian I

- AUSPA 201 Intermediate Spanish I
- AUSPA 202 Intermediate Spanish II Note:

Language courses completed through study abroad programs or in an approved French immersion program in Canada also count towards this requirement.

12 units at the 200-level in Text and Theory from:

- AUART 220 Modern Life, Modern Art
- AUART 223 Canadian Art
- AUART 224 Art and Its Histories
- AUART 225 Photography: History and Theory
- AUART 260 Selected Topics in Art History
- AUART 261 Selected Topics in Art History
- AUART 262 Selected Topics in Art History
- AUART 265 Selected Topics in Art History Tour
- AUART 281 Sex, Gender and Art
- AUART 289 Studies in Visual Culture
- AUDRA 201 History and Critical Analysis of Theatre
- AUENG 205 Children's Literature
- AUENG 206 Native Children's Literature
- AUENG 213 The English Language
- AUENG 220 Classical Foundations of Western Literature
- AUENG 221 Chaucer and Premodern Society
- AUENG 225 The World of the Middle Ages
- AUENG 230 The Early English Renaissance
- AUENG 231 The Later English Renaissance
- AUENG 233 Shakespeare
- AUENG 240 Restoration and Eighteenth Century Literature and Culture
- AUENG 260 Literary Animal Studies
- AUENG 270 America, Exceptionalism and Empire
- AUENG 271 American Law, Literature and Justice
- AUENG 280 Canadian Literature to 1950
- AUENG 281 Canadian Literature since 1950
- AUENG 298 Selected Topics in English Studies
- AUENG 299 Selected Topics in English Studies
- AUGER 291 German Drama in Translation

- AUSCA 202 Intermediate Norwegian II
- AUSPA 101 Beginners' Spanish I
- AUSPA 102 Beginners' Spanish II
- AUSPA 201 Intermediate Spanish I
- AUSPA 202 Intermediate Spanish II Note:

Language courses completed through study abroad programs or in an approved French immersion program in Canada also count towards this requirement.

12 units at the 200-level in Text and Theory from:

- AUART 220 Modern Life, Modern Art
- AUART 223 Canadian Art
- AUART 224 Art and Its Histories
- AUART 225 Photography: History and Theory
- AUART 260 Selected Topics in Art History
- AUART 261 Selected Topics in Art History
- AUART 262 Selected Topics in Art History
- AUART 265 Selected Topics in Art History Tour
- AUART 281 Sex, Gender and Art
- AUART 289 Studies in Visual Culture
- AUDRA 201 History and Critical Analysis of Theatre
- AUENG 205 Children's Literature
- AUENG 206 Native Children's Literature
- AUENG 213 The English Language
- AUENG 220 Classical Foundations of Western Literature
- AUENG 221 Chaucer and Premodern Society
- AUENG 225 The World of the Middle Ages
- AUENG 230 The Early English Renaissance
- AUENG 231 The Later English Renaissance
- AUENG 233 Shakespeare
- AUENG 240 Restoration and Eighteenth Century Literature and Culture
- AUENG 260 Literary Animal Studies
- AUENG 270 America, Exceptionalism and Empire
- AUENG 271 American Law, Literature and Justice
- AUENG 280 Canadian Literature to 1950
- AUENG 281 Canadian Literature since 1950
- AUENG 298 Selected Topics in English Studies

- AUHIS 207 History of the Roman Republic
- AUHIS 208 History of the Roman Empire
- AUHUM 276 Introduction to Visual Culture Studies
- AUIND 240 Introduction to Indigenous Cultural Production
- AUMUS 224 Music from the Ancient to Baroque Eras
- AUMUS 225 Music from the Classical Era to the Present Day
- AUMUS 226 Music and the Moving Image
- AUPHI 200 Metaphysics: Theories of Reality
- AUPHI 240 Ancient Political Philosophy
- AUPHI 241 Modern Political Philosophy
- AUPHI 250 History of Christian Thought
- AUPHI 277 Women, Darkness and Crooked Things: Feminist Philosophy
- AUPHI 290 Philosophy of Contemporary Culture
- AUREL 202 Women's Writing and Feminist Theology
- AUREL 208 Jesus of Nazareth in Contemporary Theology
- AUREL 212 Introduction to the Hebrew Bible (Old Testament)
- AUREL 216 The Hebrew Prophets
- AUREL 250 Theories of Religion
- AUREL 282 Major Religious Traditions: Middle East
- AUREL 290 Selected Topics in Religion
- AUREL 291 Selected Topics in Religion
- AUSCA 231 Scandinavian Culture and Civilization
- AUSCA 237 Selected Topics in Scandinavian Literature
- AUSCA 261 Scandinavian Folk Literature
- AUSCA 271 Personal Narratives of the North

6 units at the 200-level in Creative Practice from:

- AUART 215 Sculpture I
- AUART 230 Special Topics in Drawing
- AUART 231 Drawing I: A Basic Toolkit
- AUART 232 Drawing II: The Figure
- AUART 270 Special Topics in Painting
- AUART 271 Painting I: A Basic Toolkit (Oil)
- AUART 272 Painting II: Concepts and Approaches

- AUENG 299 Selected Topics in English Studies
- AUGER 291 German Drama in Translation
- AUHIS 207 History of the Roman Republic
- AUHIS 208 History of the Roman Empire
- AUHUM 276 Introduction to Visual Culture Studies
- AUIND 240 Introduction to Indigenous Cultural Production
- AUMUS 224 Music from the Ancient to Baroque Eras
- AUMUS 225 Music from the Classical Era to the Present Day
- AUMUS 226 Music and the Moving Image
- <u>AUMUS 239 The Child Voice</u>
- AUPHI 200 Metaphysics: Theories of Reality
- AUPHI 240 Ancient Political Philosophy
- AUPHI 241 Modern Political Philosophy
- AUPHI 250 History of Christian Thought
- AUPHI 277 Women, Darkness and Crooked Things: Feminist Philosophy
- AUPHI 290 Philosophy of Contemporary Culture
- AUREL 202 Women's Writing and Feminist Theology
- AUREL 208 Jesus of Nazareth in Contemporary Theology
- AUREL 212 Introduction to the Hebrew Bible (Old Testament)
- AUREL 216 The Hebrew Prophets
- AUREL 250 Theories of Religion
- AUREL 282 Major Religious Traditions: Middle East
- AUREL 290 Selected Topics in Religion
- AUREL 291 Selected Topics in Religion
- AUSCA 231 Scandinavian Culture and Civilization
- AUSCA 237 Selected Topics in Scandinavian Literature
- AUSCA 261 Scandinavian Folk Literature
- AUSCA 271 Personal Narratives of the North

6 units at the 200-level in Creative Practice from:

- AUART 215 Sculpture I
- AUART 230 Special Topics in Drawing
- AUART 232 Drawing II: The Figure
- AUART 270 Special Topics in Painting

- AUART 298 Selected Topics in Art Studio
- AUDRA 209 Script Analysis and Production Preparation
- AUDRA 230 Acting Techniques I
- AUDRA 233 Clown and Mask
- AUDRA 238 Theatre Company
- AUDRA 239 Theatre Company
- AUDRA 244 Improvisation II: Workshop and Performance
- AUDRA 250 Applied Improvisation
- AUDRA 260 Dramaturgy and Play Analysis
- AUENG 214 Advanced Creative Writing: Poetry
- AUENG 215 Creative Writing
- AUMUS 260 Theoretical and Analytical Studies II
- AUMUS 262 Aural, Sight Singing and Keyboard Skills II
- Any 200-level AUMUS ensemble courses
- Any 200-level AUMUS applied music courses

6 units in Social Sciences from:

Any 100-level, 200-level, or 300-level courses in AUHIS, AUPOL, or AUSOC including 3 units from the following:

- AUIND 101 Introduction to Indigenous Studies
- AUIDS 230 Introduction to Gender and Women's Studies
- AULAN 101 Introduction to Linguistic Analysis
- AUSOC 262 Mass Communication and Contemporary Society
- AUSOC 372 Visual Sociology

6 units in Science:

Any Augustana Science course may count towards this requirement. The following courses are recommended:

- AUCSC 111 Introduction to Computational Thinking and Problem Solving
- AUCSC 204 Computing Technology in Modern Society
- AUENV 120 Human Activities and the Natural Environment
- AUENV 220 Applications in Sustainability
- AUIDS 137 Science Laboratory Experiences

- AUART 272 Painting II: Concepts and Approaches
- AUART 298 Selected Topics in Art Studio
- AUDRA 209 Script Analysis and Production Preparation
- AUDRA 230 Acting Techniques I
- AUDRA 233 Clown and Mask
- AUDRA 238 Theatre Company
- AUDRA 239 Theatre Company
- AUDRA 244 Improvisation II: Workshop and Performance
- AUDRA 250 Applied Improvisation
- AUDRA 260 Dramaturgy and Play Analysis
- AUENG 214 Advanced Creative Writing: Poetry
- AUENG 215 Creative Writing
- AUMUS 260 Theoretical and Analytical Studies II
- AUMUS 262 Aural, Sight Singing and Keyboard Skills II
- Any 200-level AUMUS ensemble courses
- Any 200-level AUMUS applied music courses

6 units in Social Sciences from:

Any 100-level, 200-level, or 300-level courses in AUHIS, AUPOL, or AUSOC including 3 units from the following:

- AUIND 101 Introduction to Indigenous Studies
- AUIDS 230 Introduction to Gender and Women's Studies
- AULAN 101 Introduction to Linguistic Analysis
- AUSOC 262 Mass Communication and Contemporary Society
- AUSOC 372 Visual Sociology

6 units in Science:

Any Augustana Science course may count towards this requirement. The following courses are recommended:

- AUCSC 111 Introduction to Computational Thinking and Problem Solving
- AUCSC 204 Computing Technology in Modern Society
- AUENV 120 Human Activities and the Natural Environment

- AUPSY 103 Introduction to Psychology AUSTA 153 - Introductory Applied Statistics 9 units at the 300-level in Text and Theory from: • AUART 380 - Directed Reading in Art History AUART 381 - Selected Topics in Art History from: and Visual Culture • AUART 382 - Selected Topics in Art History and Visual Culture • AUENG 306 - Indigenous Children's Literature & Theorv • AUENG 313 - The English Language • AUENG 330 - The Early English Renaissance • AUENG 331 - The Later English Renaissance • AUENG 333 - Shakespeare • AUENG 368 - Ecofeminist Theory & Women's Writina • AUENG 380 - Canadian Literature to 1950 • AUENG 381 - Canadian Literature since 1950 Writina AUENG 382 - Postcolonial Literature and Theory • AUENG 392 - Feminist Theory and Women's Writina Theory • AUENG 398 - Selected Topics in English Studies Writing AUENG 399 - Selected Topics in English Studies Studies AUFRE 305 - Aspects of Civilization and Culture of France I Studies • AUFRE 337 - Selected Topics in French Literature • AUFRE 339 - Selected Topics in French Literature • AUGER 335 - Selected Topics in German Language • AUGER 337 - Selected Topics in German Literature • AUHIS 300 - Topics in European History • AUMUS 356 - Music and Wellness • AUMUS 369 - Popular Music: Analysis, Interpretation, Meaning AUPHI 336 - Nineteenth-Century Philosophy • AUPHI 345 - Philosophy in Canada • AUPHI 350 - Philosophy of Science AUPHI 351 - Thinking About Sex: Philosophy, Science, and the Construction of Sex
 - AUPHI 355 Philosophy and the Environment
 - AUPHI 358 Philosophy of Religion II

- AUENV 220 Applications in Sustainability
- AUIDS 137 Science Laboratory Experiences
- AUPSY 103 Introduction to Psychology
- AUSTA 153 Introductory Applied Statistics

9 units at the 300-level in Text and Theory from:

- AUART 380 Directed Reading in Art History
- AUART 381 Selected Topics in Art History and Visual Culture
- AUART 382 Selected Topics in Art History and Visual Culture
- AUENG 306 Indigenous Children's Literature & Theory
- AUENG 313 The English Language
- AUENG 330 The Early English Renaissance
- AUENG 331 The Later English Renaissance
- AUENG 333 Shakespeare
- AUENG 368 Ecofeminist Theory & Women's Writing
- AUENG 380 Canadian Literature to 1950
- AUENG 381 Canadian Literature since 1950
- AUENG 382 Postcolonial Literature and Theory
- AUENG 392 Feminist Theory and Women's Writing
- AUENG 398 Selected Topics in English Studies
- AUENG 399 Selected Topics in English Studies
- AUFRE 305 Aspects of Civilization and Culture of France I
- AUFRE 337 Selected Topics in French Literature
- AUFRE 339 Selected Topics in French Literature
- AUGER 335 Selected Topics in German Language
- AUGER 337 Selected Topics in German Literature
- AUHIS 300 Topics in European History
- AUMUS 356 Music and Wellness
- AUMUS 369 Popular Music: Analysis, Interpretation, Meaning
- AUPHI 336 Nineteenth-Century Philosophy
- AUPHI 345 Philosophy in Canada
- AUPHI 350 Philosophy of Science
- AUPHI 351 Thinking About Sex: Philosophy, Science, and the Construction of Sex

- AUPHI 365 Aesthetics
- AUPHI 390 Indigenous Thought: First Nations Thought and Knowledge
- AUPHI 392 World Philosophy: Comparing Perspectives
- AUREL 302 Women's Writing and Feminist Theology
- AUREL 325 Sex and Gender in Ancient Religions
- AUREL 345 Religion and Ecology
- AUREL 347 Theology of Luther
- AUREL 365 Storied Landscapes
- AUSCA 337 Selected Topics in Scandinavian Literature

6 units at the 400-level in Text and Theory or Creative Practice from:

- AUART 421 Selected Topics in Art History and Visual Culture
- AUART 480 Directed Reading in Art History
- AUENG 401 Directed Reading I
- AUENG 402 Directed Reading II
- AUENG 420 Selected Topics in English Studies
- AUENG 441 Selected Topics in English Studies
- AUENG 450 Selected Topics in English Studies
- AUENG 460 Selected Topics in English Studies
- AUFRE 403 Directed Reading
- AUGER 403 Directed Reading
- AUSCA 403 Directed Reading
- AUSCA 405 Directed Study: Area Studies
- AUSPA 403 Directed Study: Literature

[Note that the following courses have specific prerequisites:]

- AUART 411 Interdisciplinary Exploration: Studio
- AUART 490 Directed Project in Visual Explorations
- AUDRA 401 Directed Reading II
- AUDRA 409 Script Analysis and Production Preparation
- AUDRA 420 Performer-Created Theatre
- AUDRA 430 Movement and Physical Theatre

- AUPHI 355 Philosophy and the Environment
- AUPHI 358 Philosophy of Religion II
- AUPHI 365 Aesthetics
- AUPHI 390 Indigenous Thought: First Nations Thought and Knowledge
- AUPHI 392 World Philosophy: Comparing Perspectives
- AUREL 302 Women's Writing and Feminist Theology
- AUREL 325 Sex and Gender in Ancient Religions
- AUREL 345 Religion and Ecology
- AUREL 347 Theology of Luther
- AUREL 365 Storied Landscapes
- AUSCA 337 Selected Topics in Scandinavian Literature

6 units at the 400-level in Text and Theory or Creative Practice from:

- AUART 421 Selected Topics in Art History and Visual Culture
- AUART 480 Directed Reading in Art History
- AUENG 401 Directed Reading I
- AUENG 402 Directed Reading II
- AUENG 420 Selected Topics in English Studies
- AUENG 441 Selected Topics in English Studies
- AUENG 450 Selected Topics in English Studies
- AUENG 460 Selected Topics in English Studies
- AUFRE 403 Directed Reading
- AUGER 403 Directed Reading
- AUSCA 403 Directed Reading
- AUSCA 405 Directed Study: Area Studies
- AUSPA 403 Directed Study: Literature

[Note that the following courses have specific prerequisites:]

- AUART 411 Interdisciplinary Exploration: Studio
- AUART 490 Directed Project in Visual Explorations
- AUDRA 401 Directed Reading II
- AUDRA 409 Script Analysis and Production Preparation
- AUDRA 420 Performer-Created Theatre

- AUDRA 437 Senior Showcase
- AUDRA 438 Theatre Company
- AUDRA 439 Theatre Company
- AUDRA 444 Story Theater
- AUENG 416 Advanced Creative Writing: Fiction
- AUMUS 400-level course (any offering at the 400-level)

Specializations

Students in Creativity and Culture may choose to include a specialization in Visual Art, Creative Writing, Drama, or Music. Each specialization requires an additional 12 units, along with prescribed courses that overlap with other requirements of the major.

Requirements for Visual Art Specialization Overlapping courses

- 6 units of the 200- and 300-level Text and Theory courses must be in Art History
- AUART 100 Introduction to Art History and Visual Culture
- AUART 111 Making Art: First Steps
- AUART-231 Drawing I: A Basic Toolkit
- AUART 232 Drawing II: The Figure
- AUART 411 Interdisciplinary Exploration: Studio

Additional courses

- AUART 271 Painting I: A Basic Toolkit (Oil)
- AUART 272 Painting II: Concepts and Approaches
- AUART 331 Drawing III: Contemporary Ideas in Drawing
- AUART 371 Painting III: Contemporary Ideas in Painting

Requirements for Creative Writing Specialization

Overlapping Courses

- AUENG 215 Creative Writing
- AUENG 280 Canadian Literature to 1950
- AUENG 281 Canadian Literature since 1950

- AUDRA 430 Movement and Physical Theatre
- AUDRA 437 Senior Showcase
- AUDRA 438 Theatre Company
- AUDRA 439 Theatre Company
- AUDRA 444 Story Theater
- AUENG 416 Advanced Creative Writing: Fiction
- AUMUS 400-level course (any offering at the 400-level)

Specializations

Students in Creativity and Culture may choose to include a specialization in Visual Art, Creative Writing, Drama, or Music. Each specialization requires an additional 12 units, along with prescribed courses that overlap with other requirements of the major.

Requirements for Visual Art Specialization Overlapping courses

- 6 units of the 200- and 300-level Text and Theory courses must be in Art History
- AUART 100 Introduction to Art History and Visual Culture
- <u>AUART 131 Drawing I: A Basic Toolkit OR</u>
- <u>AUART 171 Painting I: A Basic Toolkit (Oil)</u>
- AUART 232 Drawing II: The Figure
- AUART 411 Interdisciplinary Exploration: Studio

Additional courses

- <u>AUART 131 Drawing I: A Basic Toolkit OR</u>
- <u>AUART 171 Painting I: A Basic Toolkit (Oil)</u>
- AUART 272 Painting II: Concepts and Approaches
- AUART 331 Drawing III: Contemporary Ideas in Drawing
- AUART <u>372</u> Painting III: Contemporary Ideas in Painting

Requirements for Creative Writing Specialization

Overlapping Courses

- AUENG 215 Creative Writing
- AUENG 280 Canadian Literature to 1950
- AUENG 281 Canadian Literature since 1950

• AUENG 416 - Advanced Creative Writing: Fiction

3 units at the 200-level in Creative Practice from:

- AUDRA 260 Dramaturgy and Play Analysis
- AUENG 214 Advanced Creative Writing: Poetry
- AUENG 218 Creative Writing Memoir

Additional Courses

12 units additional at the 200- or 300-level in AUENG courses, including 6 units from:

- AUENG 214 Advanced Creative Writing: Poetry
- AUENG 218 Creative Writing Memoir
- AUDRA 260 Dramaturgy and Play Analysis
- AUDRA 384 Playwriting

Requirements for Drama Specialization Overlapping courses

- AUDRA 144 Introduction to the Dramatic Process
- AUDRA 230 Acting Techniques I
- AUDRA 239 Theatre Company
- 3 units at 400-level in AUDRA

Additional courses

- 6 units additional at the 200-level in AUDRA courses
- AUDRA 350 Introduction to Directing
- 3 units additional at the 300-level in AUDRA courses

Requirements for Music Specialization Overlapping courses

- 6 units at the 200-level in Creative Practice in Music
- AUMUS 160 Theoretical and Analytical Studies I
- AUMUS 170 Tuning In: An Introduction to Music
- 3 units at 400-level in AUMUS

Additional courses

 AUENG 416 - Advanced Creative Writing: Fiction

3 units at the 200-level in Creative Practice from:

- AUDRA 260 Dramaturgy and Play Analysis
- AUENG 214 Advanced Creative Writing: Poetry
- AUENG 218 Creative Writing Memoir

Additional Courses

12 units additional at the 200- or 300-level in AUENG courses, including 6 units from:

- AUENG 214 Advanced Creative Writing: Poetry
- AUENG 218 Creative Writing Memoir
- AUDRA 260 Dramaturgy and Play Analysis
- AUDRA 384 Playwriting

Requirements for Drama Specialization Overlapping courses

- AUDRA 144 Introduction to the Dramatic Process
- AUDRA 230 Acting Techniques I
- AUDRA 239 Theatre Company
- 3 units at 400-level in AUDRA

Additional courses

- 6 units additional at the 200-level in AUDRA courses
- AUDRA 350 Introduction to Directing
- 3 units additional at the 300-level in AUDRA courses

Requirements for Music Specialization Overlapping courses

- 6 units at the 200-level in Creative Practice in Music
- AUMUS 160 Theoretical and Analytical Studies I
- AUMUS 170 Tuning In: An Introduction to Music
- 3 units at 400-level in AUMUS

Additional courses

 AUMUS 162 - Aural, Sight Singing, and	 AUMUS 162 - Aural, Sight Singing, and
Keyboard Skills I AUMUS 260 - Theoretical and Analytical	Keyboard Skills I AUMUS 260 - Theoretical and Analytical
Studies II AUMUS 262 - Aural, Sight Singing and	Studies II AUMUS 262 - Aural, Sight Singing and
Keyboard Skills II 3 units additional at the 300-level in AUMUS	Keyboard Skills II 3 units additional at the 300-level in AUMUS

Augustana Faculty Council, December 1, 2023.

Augustana Curriculum Committee, November 22, 2023.



for Program and Regulation Changes See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Music/Education
Contact Person:	Stephen Tchir
Level of change: (choose one only)	✓ Undergraduate
	Graduate
Type of change request: (check all that apply)	Program
	Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	n/a

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

In 2021, the Bachelor of Education, elementary generalist route, was revised to include some small program changes. This was approved at GFC Programs and came into effect for students coming into the program in 2022. At that time, changes were not made to reflect these changes in the combined degree programs (Native Studies, KSR, and Music). These calendar changes reflect the new requirements for the BEd elementary route and provide consistency for students.

Calendar Copy

URL in current Calendar (or "New page") <u>Bachelor of Music / Bachelor of Education in Elementary Education</u> Combined Degrees Program [Education]		
Current Copy: Removed language	Proposed Copy: New language	
Program Requirements	Program Requirements	
Year 1 (33 units)	Year 1 (33 units)	
 6 units of approved junior ENGL (Element) <u>MUSIC 125 - Applied Music</u> <u>MUSIC 151 - Aural and Keyboard Skills I</u> <u>MUSIC 155 - Music Theory I</u> <u>MUSIC 156 - Music Theory II</u> <u>MUSIC 186 - Musical Life Today</u> (Element ∀) 	 6 units of approved junior ENGL (Element c. Language/Literature) MUSIC 125 - Applied Music MUSIC 151 - Aural and Keyboard Skills I MUSIC 155 - Music Theory I MUSIC 156 - Music Theory II MUSIC 186 - Musical Life Today (Element b. Fine Arts) 	

 Element H Mathematics or Statistics (3 units). See 	 Element d. Mathematics (3 units). See
Components of the Program.	Components of the Program.
	3 units from
3 units from	 <u>MUSIC 129 - Fundamental Keyboard Skills</u> MUSIC, Arts, or Science option (★3) with permission from the Department of Music
 <u>MUSIC 129 - Fundamental Keyboard Skills</u> MUSIC, Arts, or Science option (★3) with permission from the Department of Music 	3 units from
3 units from	 <u>MUSIC 140 - Choral Ensemble</u> <u>MUSIC 141 - Instrumental Ensemble</u>
<u>MUSIC 140 - Choral Ensemble</u> <u>MUSIC 141 - Instrumental Ensemble</u> Year 2 (33 units) EDU 100 - Contexts of Education	 Year 2 (33 units) EDU 100 - Contexts of Education MUSIC 225 - Applied Music MUSIC 251 - Aural and Keyboard Skills II MUSIC 255 - Music Theory III MUSIC 256 - Music Theory IV MUSIC 283 - Western Art Music. Ancient-1800
 MUSIC 225 - Applied Music MUSIC 251 - Aural and Keyboard Skills II MUSIC 255 - Music Theory III MUSIC 256 - Music Theory IV MUSIC 283 - Western Art Music, Ancient-1800 	3 units from
3 units from	 MUSIC 440 - Choral Ensemble MUSIC 441 - Instrumental Ensemble
 <u>MUSIC 440 - Choral Ensemble</u> <u>MUSIC 441 - Instrumental Ensemble</u> 	6 units from
6 units from	 One Language Other than English (6 units) choose from any language other than English OR MUSIC, Arts, or Science Option (6 units) (see Note 1)
 One Language Other than English (6 units) choose from any language other than English OR MUSIC, Arts, or Science Option (6 units) (see Note 1) 	3 units from

3 units	from	Music Option
•	Music Option	Notes
Notes		
1.	The Language Other than English (6 units) requirement can be replaced with MUSIC, Arts, or Science Option (6 units) for students who have a. successfully completed a Language Other than English at the 30-level (or equivalent), or b. been required to take an English Language Proficiency test for admission	 The Language Other than English (6 units) requirement can be replaced with MUSIC, Arts, or Science Option (6 units) for students who have a. successfully completed a Language Other than English at the 30-level (or equivalent), or b. been required to take an English Language Proficiency test for admission Year 3 (33 units)
Year 3	(33 units)	
•	EDU 211 - Aboriginal Education and Contexts for Professional and Personal Engagement MUSIC 245 - Introduction to Music Technologies MUSIC 284 - Western Art Music, 1800-Present MUSIC 315 - Introduction to Conducting MUSIC 417 - Choral Conducting and Pedagogy MUSIC 425 - Applied Music Element III-Social Science (3 units) See Components of the Program. Element IV Natural Science (3 units) See	 EDU 211 - Aboriginal Education and Contexts for Professional and Personal Engagement MUSIC 245 - Introduction to Music Technologies MUSIC 284 - Western Art Music, 1800-Present MUSIC 315 - Introduction to Conducting MUSIC 417 - Choral Conducting and Pedagogy MUSIC 425 - Applied Music Element g. Social Science (3 units) See Components of the Program. Element e. Natural Science (3 units) See Components of the Program.
	Components of the Program.	3 units from
3 units	from	MUSIC 103 - Introduction to Popular Music
• • •	MUSIC 103 - Introduction to Popular Music MUSIC 206 - History of Jazz MUSIC 314 - Music in Canada MUSIC 365 - Topics in Ethnomusicology	 MUSIC 206 - History of Jazz MUSIC 314 - Music in Canada MUSIC 365 - Topics in Ethnomusicology 3 units from
3 units	from	MUSIC 440 - Choral Ensemble
•	MUSIC 440 - Choral Ensemble	MUSIC 441 - Instrumental Ensemble Junits from

<u>MUSIC 441 - Instrumental Ensemble</u>	
3 units from	Year 4 and 5 (<mark>60</mark> units) Taken in the Faculty of Education
Year 4 and 5 (30 units) Taken in the Faculty of Education	Students should refer to their individual Program Sheet for proper course sequencing.
Students should refer to their individual Program Sheet for proper course sequencing.	Course Requirements:
Course Requirements: EDU 210 Introduction to Educational Technology EDEL 302 - Curricultum and Pedagogy in Elementary School Art EDEL 305 - Language Arts in the Elementary School EDEL 316 - Communication Through Mathematics Education EDEL 321 - Introduction to Curricultum and Pedagogy in Elementary School Physical Education EDEL 325 - Curricultum and Pedagogy in Elementary School Music OR EDEL 335 - Curricultum and Pedagogy in Elementary School Music OR EDEL 335 - Curricultum and Pedagogy in Elementary School Science EDEL 400 - Level (3 units): EDEL 425 or 428 recommended EDEL 400 - Level (3 units): EDEL 425 or 428 recommended EDEX 325 - Elementary Route: Introductory Field Experience EDEX 425 - Elementary Route: Advanced Field Experience EDEX 410 - Ethics and Law in Teaching EDEX 410 - Ethics and Law in Teaching EDEX 301 - Introduction to Inclusive Education: Adapting Classroom Instruction for Students with Special Needs EDEY 301 - Ethics and Development in Childhood EDEY 303 - Educational Assessment EDEY 303 - Educational Assessment Education Elective (3 units)	 EDEL 305 - Language Arts in the Elementary School EDEL 316 - Communication Through Mathematics EDEL 330 - Curriculum and Pedagogy in Elementary School Science EDEL 335 - Curriculum and Pedagogy in Elementary School Social Studies EDEL 325 - Curriculum and Pedagogy in Elementary School Music EDPY 301 - Introduction to Inclusive Education: Adapting Classroom Instruction for Students with Special Needs EDPY 302 - Learning and Development in Childhood EDPY 303 - Educational Assessment EDPY 303 - Educational Assessment EDPY 410 - Ethics and Law in Teaching Education Elective (6 units) EDEL (400-Level) Option (3 units) 3 units from EDEL 302 - Curriculum and Pedagogy in Elementary School Arti EDEL 302 - Curriculum and Pedagogy in Elementary School Arti EDEL 302 - Introduction to Curriculum and Pedagogy in Elementary School Physical Education EDEL 345 - Introduction to Curriculum and Pedagogy in Elementary School Health Education EDEL 345 - Introduction to Curriculum and Pedagogy in Elementary School Health Education EDEL 345 - Introduction to Curriculum and Pedagogy in Elementary School Health Education Element a. Aboriginal and Indigenous Histories and Culture (3 units). See Components of the Program. Element f. Physical and Health Education (3 units). See Components of the Program.
Culture. See <u>Components of the Program</u> .	Field Placements (★15) ● EDFX 325 (★6) ● EDFX 425 (★9)

	3 units in Element f. Physical and Health		
	Education. See <u>Components of the Program</u> .		
	Editation. Cool <u>Componente el tre Program</u> .	Notes: 1. EDEL 305 and EDEL 316 must be taken in Ye	or 1
		as pre/co-requisites to EDFX 325.	<u>al 4</u>
		2. <u>Students interested in doing EDFX 325 or ED</u>	=X
		425 in a music classroom must complete EDE	
		325 in Fall Term before Introductory Professio	nal 🛛
		Term.	
		3. The Introductory Professional Term is normally	
		offered in Year 4 Winter Term only and consist	
		EDFX 325, ★6 EDEL courses, and EDPY 303 4. The Advanced Professional Term is normally	<u>5.</u>
		offered in Year 5 Fall Term only and consists of	f
		EDFX 425, ★3 EDEL, and EDPY 301.	<u>a</u>
		5. The Education Elective and EDEL 400-Level	
		options may have prerequisites and are norma	ally
		available in Years 4 and 5 only.	
		6. <u>Not all courses are offered each term or in a</u>	
		13-week or condensed format.	:4 a a
		7. Students should be aware of course prerequise and refer to their individual program sheets for	
		proper sequencing of courses.	
		Promotion in the BMus/BEd Combined Degrees Programs	
	otion in the BMus/BEd Combined Degrees		
Promo Progra	-	 To be eligible to continue in the program, stud will normally need a minimum GPA of 2.3 each Fall/Winter. 	
Progra	ams	 To be eligible to continue in the program, stud will normally need a minimum GPA of 2.3 each Fall/Winter. Successful completion of the program 	ו
Progra	To be eligible to continue in the program, students	 To be eligible to continue in the program, stud will normally need a minimum GPA of 2.3 each Fall/Winter. Successful completion of the program requirements includes a cumulative grade point 	n nt
Progra	To be eligible to continue in the program, students will normally need a minimum GPA of 2.3 each	 To be eligible to continue in the program, stud will normally need a minimum GPA of 2.3 each Fall/Winter. Successful completion of the program requirements includes a cumulative grade poin average of 2.3 on all courses completed in the 	n nt
Progra	To be eligible to continue in the program, students will normally need a minimum GPA of 2.3 each Fall/Winter.	 To be eligible to continue in the program, stud will normally need a minimum GPA of 2.3 each Fall/Winter. Successful completion of the program requirements includes a cumulative grade poin average of 2.3 on all courses completed in the program. 	n nt
Progra	To be eligible to continue in the program, students will normally need a minimum GPA of 2.3 each	 To be eligible to continue in the program, stud will normally need a minimum GPA of 2.3 each Fall/Winter. Successful completion of the program requirements includes a cumulative grade poin average of 2.3 on all courses completed in the 	n nt units
Progra	To be eligible to continue in the program, students will normally need a minimum GPA of 2.3 each Fall/Winter. Successful completion of the program	 To be eligible to continue in the program, stud will normally need a minimum GPA of 2.3 each Fall/Winter. Successful completion of the program requirements includes a cumulative grade poin average of 2.3 on all courses completed in the program. Students are required to complete at least 33 during each Fall/Winter in every year except Y 4 where 30 units is required. A reduced course 	n ht units ′ear e
Progra 1.	To be eligible to continue in the program, students will normally need a minimum GPA of 2.3 each Fall/Winter. Successful completion of the program requirements includes a cumulative grade point average of 2.3 on all courses completed in the program.	 To be eligible to continue in the program, stud will normally need a minimum GPA of 2.3 each Fall/Winter. Successful completion of the program requirements includes a cumulative grade poin average of 2.3 on all courses completed in the program. Students are required to complete at least 33 during each Fall/Winter in every year except Y 4 where 30 units is required. A reduced course load to 24 units requires only the approval of the 	n nt units ′ear e he
Progra	To be eligible to continue in the program, students will normally need a minimum GPA of 2.3 each Fall/Winter. Successful completion of the program requirements includes a cumulative grade point average of 2.3 on all courses completed in the program. Students are required to complete at least 33 units	 To be eligible to continue in the program, stud will normally need a minimum GPA of 2.3 each Fall/Winter. Successful completion of the program requirements includes a cumulative grade poin average of 2.3 on all courses completed in the program. Students are required to complete at least 33 during each Fall/Winter in every year except Y 4 where 30 units is required. A reduced course load to 24 units requires only the approval of t Department of Music; a course load of less that 	n units éear e he an 24
Progra 1.	To be eligible to continue in the program, students will normally need a minimum GPA of 2.3 each Fall/Winter. Successful completion of the program requirements includes a cumulative grade point average of 2.3 on all courses completed in the program. Students are required to complete at least 33 units during each Fall/Winter in every year except Year	 To be eligible to continue in the program, stud will normally need a minimum GPA of 2.3 each Fall/Winter. Successful completion of the program requirements includes a cumulative grade poin average of 2.3 on all courses completed in the program. Students are required to complete at least 33 during each Fall/Winter in every year except Y 4 where 30 units is required. A reduced course load to 24 units requires only the approval of t Department of Music; a course load of less that units requires the approval of both Faculties a 	n units 'ear e he an 24 nd is
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Faculty of Arts, the Faculty of Education or another Faculty, if entrance and promotion requirements for such a program are met. After transfer, all requirements for the new program must be met.

- 5. Students who fail to meet the fifth-year requirements in the program are permitted to fulfil those requirements only with the approval of the Faculty of Arts and the Faculty of Education upon the recommendation of the Department of Music. Otherwise, students must withdraw from the program, and, if so desired, transfer to another program in the Faculty of Arts or Education for which they are able to meet entrance and promotion requirements.
- 6. The BMus/BEd Combined Degrees program may be interrupted only with the prior consent of the Department of Music, the Faculty of Arts, and the Faculty of Education. Readmission and continuation will be subject to any conditions, including reauditioning and new program requirements, that may be specified by the Department of Music, the Faculty of Arts, and the Faculty of Education.
- All qualified Year 3 BMus/BEd Combined Degrees students will be promoted to Year 4 in the Faculty of Education provided that
 - 1. a minimum AGPA of 2.3 has been achieved, and
 - a minimum of 99 units applicable to this program has been successfully completed.
 Note: Students in Year 3 who have completed less than 99 units toward the BMus/BEd Combined Degrees but have achieved an AGPA of at least 2.3 may select one of two alternatives:
 - remain in Year 3 of this program in the Faculty of Arts for one additional year;
 - 2. apply to enter one of the other Bachelor of Music routes.
- 8. A student who has been assigned a grade of "W" or "NC" in an Education Field Experience course is entitled to a second registration in this course. See also Reregistration in Courses. Notwithstanding Reregistration in Courses, if a student receives a "W" or "NC" in the second attempt of a Field Experience course, they will be required to withdraw from the Combined Degrees program.

- 5. Students who fail to meet the fifth-year requirements in the program are permitted to fulfil those requirements only with the approval of the Faculty of Arts and the Faculty of Education upon the recommendation of the Department of Music. Otherwise, students must withdraw from the program, and, if so desired, transfer to another program in the Faculty of Arts or Education for which they are able to meet entrance and promotion requirements.
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 - remain in Year 3 of this program in the Faculty of Arts for one additional year;
 - 2. apply to enter one of the other Bachelor of Music routes.
- 8. A student who has been assigned a grade of "W" or "NC" in an Education Field Experience course is entitled to a second registration in this course. See also Reregistration in Courses. Notwithstanding Reregistration in Courses, if a student receives a "W" or "NC" in the second attempt of a Field Experience course, they will be required to withdraw from the Combined Degrees program.

Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date. Faculty of Education, Undergraduate Academic Affairs - Approved - September 21, 2023

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates. Approved by Music Department Council (30 August 2023) - Stephen Tchir



for Course Changes

See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	FoKSR
Contact Person:	Angela Bayduza KSR Associate Dean, Undergraduate Programs ksradu@ualberta.ca
Level of change: (choose one only) [?]	✓ Undergraduate
	Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The following minor editorial change to the HE ED 110 course description is being proposed to transition the course back to a more traditional lecture based course (of three, 50 min scheduled lectures per week) by the removal of seminars (one, 50 minute seminar per week). The intent of this change is to increase contact hrs for learners with course instructors, while continuing to offer applied, experiential learning opportunities for learners. As well, this change is intended to reduce scheduling conflicts between the course completion requirements and other courses and as well to align pedagogical expectations related to content of the course more appropriately with both participants and teaching assistants in a first level course.

Course Template

Current: Removed language	Proposed: New language
HE ED 110 - Introduction to Personal Health and	HE ED 110 - Introduction to Personal Health and
Well-Being	Well-Being
Course Career Undergraduate	Course Career Undergraduate
Units 3	Units 3
Approved Hours VARIABLE	Approved Hours 3-0-0
Fee index 6	Fee index 6
Faculty Kinesiology, Sport, & Rec	Faculty Kinesiology, Sport, & Rec
Department Kinesiology, Sport, & Rec	Department Kinesiology, Sport, & Rec
Typically Offered either term	Typically Offered either term
Description	Description
An individual-based analysis of physical fitness and personal health and wellness. Emphasis is on planning and managing one's own lifestyle for health and well-being within the context of the current health care system. The blended format of the course will allow application of health information to personal context. Students will attend one lecture, complete online activities, and attend one seminar each week. Open to all students.	An individual-based analysis of physical fitness and personal health and wellness. Emphasis is on planning and managing one's own lifestyle for health and well-being within the context of the current healthcare system. The student-centred, applied learning approach of the course will promote relevance and use of health information to personal context. Open to all students.

Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date.

KSR Undergraduate Programs Committee: January 10th, 2024 approval KSR Faculty Executive: January 24th, 2024 reporting KSR Faculty Council: January 31st, 2024 reporting Program Support Team (Undergraduate & Non-Credit): for omnibus consent agenda February 29th, 2024 (pending)

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates. HE ED 110 Primary Instructors Dr. Taniya Nagpaul (Assistant Professor FoKSR) and Liane Jean (Assistant Lecturer FoKSR) (Nov 28 and Dec 8, 2023)

Nicole Lazorek, KSR Manager Academic Programs (various discussions, Fall 2023)



for Course Changes

See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	FoKSR
Contact Person:	Angela Bayduza KSR Associate Dean, Undergraduate Programs ksradu@ualberta.ca
Level of change: (choose one only) [?]	✓ Undergraduate
	Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Within the course plan of RLS 331 a content refresh is provided to ensure students are in a good place to proceed successfully in the completion of the learning objectives of the course, regardless of the completion of previous course work. A review module provided at the beginning of the course, that encapsulates a summarization of recreation and leisure studies, from a multi-disciplinary perspective, and is aligned with the overall content of RLS 331, ensures that those enrolled in the course are well prepared for continuation and completion of the learning objectives of the course. It is felt that the prerequisite is unnecessary given the entirety of the content provided in the course and the positioning of a refresh at the start of the course. As well, the prerequisite presents a considerable barrier for students from other programs within and outside of KSR to enroll in the course as a senior faculty elective or open option.

Course Template

Current: Removed language	Proposed: New language
RLS 331 - Leisure Education Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Kinesiology, Sport, & Rec Department Kinesiology, Sport, & Rec Typically Offered either term	RLS 331 - Leisure Education Course Career Undergraduate Units 3 Approved Hours 3-0-0 Fee index 6 Faculty Kinesiology, Sport, & Rec Department Kinesiology, Sport, & Rec Typically Offered either term
Description A total development process through which individuals develop an understanding of self, leisure, and the relationship of leisure to their own lifestyles and the fabric of society. Examination of determining the place and significance leisure has in one's life. Prerequisite: RLS 100.	Description A total development process through which individuals develop an understanding of self, leisure, and the relationship of leisure to their own lifestyles and the fabric of society. Examination of determining the place and significance leisure has in one's life.

Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date. KSR Undergraduate Programs Committee: January 10th, 2024 approval KSR Faculty Executive: January 24th, 2024 reporting KSR Faculty Council: January 31st, 2024 reporting Program Support Team (Undergraduate & Non-Credit): for omnibus consent agenda January 25th, 2024 (pending)

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates. Dr. J. Godwyll, KSR Assistant Professor, RLS 331 Primary Instructor (various discussions Fall 2023; dedicated meeting December 7, 2023)

Nicole Lazorek, KSR Manager Academic Programs (various discussions, Fall 2023)



for Program and Regulation Changes See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Faculty Pharmacy & Pharmaceutical Sciences
Contact Person:	Dion Brocks, Professor and Associate Dean
Level of change: (choose one only)	✓ Undergraduate
	Graduate
Type of change request: (check all that apply)	✓ Program
	Regulation
For which term is this intended to take effect?	2023/2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	no

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The minimum GPA for Satisfactory academic performance for each year of the PharmD program is 2.1, not 2.0. The 2.0 was historical and was based on outdated GPA requirements.

Calendar Copy

https://calendar.ualberta.ca/content.php?catoid=39&navoid=12274#admission URL in current Calendar	
Current Copy: Removed language	Proposed Copy: New language
 Academic Standing Doctor of Pharmacy (PharmD) 1. Grades 2. Reexaminations: See Reexaminations a. Students are advised that it is not possible to make a ruling regarding remediation or reexamination until all grades for a year are received and recorded. b. The reexamination mark will replace the original final exam mark. Reexamination results do not alter the student's class standing. e. Any student who, after reexamination and/or evaluation, fails to meet promotion/graduation requirements, is deemed to have failed the year. 	 Academic Standing Doctor of Pharmacy (PharmD) 1. Grades 2. Reexaminations: See Reexaminations a. Students are advised that it is not possible to make a ruling regarding remediation or reexamination until all grades for a year are received and recorded. b. The minimum GPA for a reexamination is 2.1. c. The reexamination mark will replace the original final exam mark. Reexamination results do not alter the student's class standing. d. Any student who, after reexamination and/or evaluation, fails to meet promotion/graduation requirements, is deemed to have failed the year.

<mark>d</mark> . A student who does not take a reexamination	<mark>e</mark> . A student who does not take a reexamination
within the time period prescribed by the Faculty	within the time period prescribed by the Faculty
will not be allowed to continue in the program.	will not be allowed to continue in the program.
<mark>e</mark> . Reexamination procedure:	<mark>f</mark> . Reexamination procedure:

REQUIRED: Faculty Council: May 16, 2023

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates.



for Program and Regulation Changes See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Pharmacy and Pharmaceutical Sciences
Contact Person:	Dr Jill Hall, Director, PharmD Program
Level of change: (choose one only)	✓ Undergraduate
	Graduate
Type of change request: (check all that apply)	Program
	Regulation
For which term is this intended to take effect?	Winter 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The title and description for this course has been updated to reflect the course content as it's evolved from its initial offering in the Winter 2021 term. Pharmacogenomics has been threaded through other pharmacy courses and is a minor concept in this course currently. A change in course name will hopefully connect the diverse course content more clearly for students, through its focus on drug safety.

Calendar Copy

URL in current Calendar https://calendar.ualberta.ca/preview_program.php?catoid=39&poid=48100&hl=%22pharm+401%22&returnto=search#

Proposed Copy: New language
PHARM 401 - Toxicology
Course Career Undergraduate
Units 3
Approved Hours 3-0-0
Fee index 6
Faculty Pharmacy & Pharmaceutical Sci
Department Pharmacy & Pharmaceutical Sc
Typically Offered second term
Description
Provides students with fundamental knowledge of
toxicology of prescription and non-prescription
medications and substances with misuse potential.
Clinical relevance of toxicology will be explored through the
examination of drug toxicity to specific target organs and
approaches to managing poisoning and adverse drug
reactions. (Restricted to Pharmacy students.)

poisoning and adverse drug reactions. (Restricted to Pharmacy students.)	
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REQUIRED: Faculty Council (or delegate) and approval date. January 16,2024

OPTIONAL: Curriculum Committee October 27, 2023



for Course Changes

See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Rehabilitation Medicine
Contact Person:	Amy Peters / Tammy Hopper
Level of change: (choose one only) [?]	✓ Undergraduate
	Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

This course is new. It is being offered to University of Alberta students and to high school students in Treaty 8 First Nations as a 'dual credit' course. Specifically, dual credit courses are offered for credit in high school as well as for credit towards university undergraduate programs (including degrees, certificates and diplomas). There is currently no similar course at the University of Alberta. The Faculty of Rehabilitation Medicine has consulted with the Vice-Provost (Indigenous Programming and Research), and the Vice-Provost (Programs), as well as Alberta Education regarding the development of this course. The course content and form of delivery are being co-developed in partnership with high school teachers in Treaty 8, the Director of Education (K-12) of Treaty 8, and with Indigenous students and academic teaching staff in the Faculty of Rehabilitation Medicine. The course will be co-taught with high school teachers in Treaty 8 First Nations in Alberta.

Current: Removed language	Proposed: New Course
Subject & Number	REHAB 102
Title Course Career Units Approved Hours Fee index Faculty Department Typically Offered	Title: Foundations of Rehabilitation: Indigenous Perspectives Course Career: UGRD Units: 3 Approved Hours: 3-0-0 Fee index: 6 Faculty: Faculty of Rehabilitation Medicine Department: N/A Typically Offered: various
Description	Description: This course is designed to introduce learners to foundations of the rehabilitation disciplines of physical therapy, occupational therapy, and speech-language therapy. The course will focus on Indigenous perspectives on health and wellness and how these relate to current rehabilitation theory and practice.

Course Template

Reviewed/Approved by:

REQUIRED: FRM Faculty Council - January 24, 2024

OPTIONAL: FRM Executive Council - January 10, 2024



for Course Changes

See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Occupational Therapy, Rehabilitation Medicine
Contact Person:	Amy Peters/Cori Schmitz
Level of change: (choose one only) [?]	Undergraduate
	Graduate
For which term will this change take effect?	Fall 2024

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The proposed calendar changes align our occupational therapy program with the latest Canadian Competencies for Occupational Therapists (2021) and our newly designed curriculum educational framework, "Education for Capabilities". These changes ensure our students receive an up-to-date, evidence-based education, preparing them to meet current and future demands in the field.

Course Template

Current: Removed language	Proposed: New language
OCCTH 568	Subject & Number OCCTH 568
Research and Scholarly Practice 1	Title Scholarly Practitioner & Program Evaluation in
	Occupational Therapy
Course Career Graduate	Course Constructo
Units 2 Approved Hours 1- 1S-0	Course Career Graduate Units 3
Fee index 4	Approved Hours 2-1S-0
Faculty Rehabilitation Medicine	Fee index <mark>6</mark>
Department Occupational Therapy Typically Offered either term	Faculty Rehabilitation Medicine Department Occupational Therapy
	Typically Offered either term
Critical inquiry and anti-oppressive practice; critically	
situating and politicizing occupation and occupational therapy; community engaged research	Description Students will learn strategies to critically integrate
and socially transformative action.	research and evaluation methods into everyday
	occupational therapy practice.

Reviewed/Approved by:

REQUIRED: Faculty Council (or delegate) and approval date.

OPTIONAL:



for Course Changes

See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	School of Public Health
Contact Person:	Helen Starodub
Level of change: (choose one only) [?]	✓ Undergraduate
	Graduate
For which term will this change take effect?	Upon Approval

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

The School of Public Health is introducing these 300-level undergraduate courses for three major reasons: 1) an increasing demand from undergraduates at the University of Alberta for public health education, and 2) to generate new revenue through tuition as incentivized by the new Budget Model 2.0. 3) Strategic directions within the CHS to build undergraduate offerings that could align with a future BHSA set of 300-level courses on important public health topics fills a gap between our current SPH 200 and several 400-level courses. We expect that this series of courses will be an important pathway for undergraduate students who enroll in the highly anticipated Bachelors of Health Science being developed by the College of Health Sciences.

Current: Removed language	Proposed: New language
New*	Subject & Number - SPH 301 Title - Public Health in a Global World Course Career - Undergraduate Units - <mark>3</mark> Approved Hours 3-0-0 Fee index - 6 Faculty - School of Public Health Typically Offered - Any term
	Description:
	This course presents concepts of public health in the
	context of an increasingly global world. Globalization can
	be defined as "processes leading to the creation of a world
	as a single entity, relatively undivided by national borders
	or other types of boundaries." The linkage between
	globalization and health is complex and involves an
	intricate web of factors. Understanding the multifaceted
	nature of global health challenges that influence health,
	students will critically analyze the complexities of health
	disparities, the impact of globalization and gain an
	understanding of how to influence the health of the public
	both positively and negatively. Students will explore

Course Template

innovative solutions, interventions and sustainable practices aimed at mitigating the impact of globalization on human health. Prerequisite: SPH 200 or consent of instructor.
Subject & Number - SPH 302 Title - Fighting Misinformation for Public Health Course Career - Undergraduate Units - 3 Approved Hours 3-0-0 Fee index - 6 Faculty - School of Public Health Typically Offered - Any term Description: This course confronts the growing challenge of misinformation and disinformation about interventions aimed at improving health, at the individual and population level. Through illustrative examples involving vaccinations, supplements, exercise and diet, you will learn to recognize common patterns and strategies through which misinformation is spread. We will also cover strategies to fight misinformation, including debunking, crafting counter messages and regulatory responses at the systemic level. Prerequisite: SPH 200 or consent of instructor.

REQUIRED: Faculty Council (or delegate) and approval date. SPH Faculty Council Approval - January 29, 2024

OPTIONAL: Other internal faculty approving bodies, consultation groups, or departments, and approval dates. Committee on Educational Policy and Programs (CEPP) - January 22, 2024



Calendar Change Request Form for Course Changes

See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	School of Public Health
Contact Person:	Patrick Hanington/Helen Starodub
Level of change (choose one only) [?]	Undergraduate
For which term will this change take effect?	Upon approval

Rationale

This proposal to cross-list SPH 512 as SPH 412/512 aligns with continued efforts by the School of Public Health to offer undergraduate-level courses in the area of environment and public health. As SPH works to develop an Undergraduate Embedded Certificate in Planetary Health, courses that are prioritized as offerings in this UEC are being made accessible to undergraduate students in all faculties at the U of A. Understanding the assessment and management of risk is a core theoretical and practical dimension of environmental health. Translating basic science related to toxicology, epidemiology and infectious diseases into assessments of risk posed to populations by these hazards is the focus of SPH 412/512.

The content of SPH 412/512 will be the same for both student levels. However, assessment for graduate students enrolled in SPH 512 will differ slightly from the undergraduate students in SPH 412. Marking rubrics will be adjusted for SPH 512 students to assess the higher-level learning objectives expected of graduate students taking this course. Additionally, SPH 512 students must complete one more comprehensive assignment above the common assessments shared between SPH 412 and SPH 512.

SPH 512 has been consistently offered as an elective course through the School of Public Health for many years. It has consistently attracted students in the Masters of Public Health (MPH) and MSc programs offered by the School of Public Health and Environmental Engineering. We anticipate that an undergraduate offering of SPH 412 will also be attractive to students in the fourth year of the science or engineering undergraduate degrees. We expect ~50 undergraduate students to enroll in SPH 412 annually.

The SPH 412/512 course description has been updated as part of this proposal to reflect new knowledge and concepts relevant to risk assessment and management.

Course Template

Current	Proposed
Removed language	New language
Subject & Number	Subject & Number
SPH 512	SPH 512
Title	Title : Environmental Risk Assessment and
Environmental Risk Assessment and Management	Management
Course Career	Course Career - Graduate Units - 3

Units - 3 Approved Hours Fee index - 6 Faculty – School of Public Health Department Typically Offered - Fall Term Description: Concepts of risk to health and environment, assessment, management and communication of risk, hazard identification, links to exposure assessment, toxicology and epidemiology , dose response assessment, risk characterization, regulatory and policy science. Note: Credit may not be obtained for both PHS 512 and SPH 512.	Approved Hours 3-0-0 Fee index - 6 Faculty – School of Public Health Department Typically Offered – Any Term Description This course will introduce students to the frameworks of environmental risk analysis in the context of human, ecosystem, and planetary health. Concepts include problem formulation, risk assessment, risk characterization, risk management and the communication of risk. A special emphasis is placed on the science of risk assessment including hazard identification, exposure assessment, effects assessment, dose response assessment/modeling and the characterization of risk. The art of public engagement in risk analysis and how regulations and policy science are also discussed in brief. Note: Credit may not be obtained for both PHS 512 and SPH 512.
New	SPH 412 Title: Environmental Risk Assessment and Management Course Career - Undergraduate Units - 3 Approved Hours 3-0-0 Fee index - 6 Faculty – School of Public Health Department Typically Offered – Any Term Description This course will introduce students to the frameworks of environmental risk analysis in the context of human, ecosystem, and planetary health. Concepts include problem formulation, risk assessment, risk characterization, risk management and the communication of risk. A special emphasis is placed on the science of risk assessment including hazard identification, exposure assessment/modeling and the characterization of risk. The art of public engagement in risk analysis and how regulations and policy science are also discussed in brief. Note: Credit may not be obtained for both SPH 412 and SPH 512.

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Approved by SPH Faculty Council - December 12, 2023

Committee on Educational Policy and Programs - Approved on November 10, 2023



Calendar Change Request Form for Course Changes

See the Calendar Guide for tips on how to complete this form.

Faculty (& Department or Academic Unit):	School of Public Health
Contact Person:	Patrick Hanington/Helen Starodub
Level of change (choose one only) [?]	Undergraduate
For which term will this change take effect?	Upon Approval

Rationale

The proposal to cross-list SPH 556 as SPH 456/556 aligns with continued efforts by the School of Public Health to offer undergraduate-level course offerings in the area of environment and public health. As SPH works to develop an Undergraduate Embedded Certificate in Planetary Health, courses that are prioritized as offerings in this UEC are being made accessible to undergraduate students in all faculties at the U of A. The topic of Climate Change and Human Health is of high interest to undergraduate students (who are already taking this class with the approval of the instructor), and the topic of the class aligns closely with the vision for the Planetary Health UEC.

The content for SPH 456/556 will remain the same for both student levels. However, assessment will differ slightly for students in the 556 offering: (1) when undergraduate and graduate students will complete the same assignments, the marking rubrics for these assignments will differ between the groups, with students enrolled in SPH 556 having a more comprehensive assessment focused on assessing their understanding of core concepts and knowledge related to the impact of climate change on human health; and/or (2) the assignments may differ for undergraduate and graduate students, with graduate students having more comprehensive assignments.

SPH 556 was first offered in Winter 2023 and has already become a popular course. We anticipate substantial interest from undergraduate students in this class, expecting ~100 more students to be enrolled in the course each year above the current 30 graduate students.

Understanding how climate change impacts human health and will impact human health in the future is a National and international priority. The University of Alberta is a world leader in this space and is one of the only Canadian institutions with courses (including SPH 456/556) that focus on the impact of climate change on human health.

Course Template

Current Removed language	Proposed <mark>New language</mark>
* New Course	Subject & Number
	SPH <mark>456</mark>
	Title
	Climate Change and Human Health
	Course Career - Undergraduate Units - 3 Approved Hours 3-0-0

Fee index - 6 Faculty - School of Public Health Department Typically Offered – Winter Term Description Climate change has severe and wide-sweeping consequences for humanity with important threats to human health and wellness. With health impacts ranging from heat-related deaths to infectious diseases (e.g., waterborne, foodborne, vector borne, and zoonotic diseases) to malnutrition to mental health to health service disruption and beyond, climate change is considered one of the biggest health challenges of the 21st century. This course focuses on how climate change is already impacting our health, and how we can diminish those impacts. Students will examine how past and future climate change hazards, exposures, and vulnerabilities shape health risks. Case studies will demonstrate how health equity, intersectionality, and social determinants of health can mediate or amplify risks. Students will apply vulnerability assessment tools to identify and prioritize effective and feasible adaptation and mitigation actions. Through discussion, teamwork, and real-world examples, students will apply principles of transdisciplinary systems thinking, equity and justice, sustainability, complexity, Indigenous Peoples' Rights, and community engagement to not only understand climate change impacts on health but to also move into the solution space. Credit may not be obtained for both SPH 456 and SPH 556.	
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climate change impacts on health but to also move into the solution space. Credit may not be obtained	
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for both SPH 456 and SPH 556.	
	for both SPH 456 and SPH 556.

Approved by SPH Faculty Council on December 12, 2023

Committee on Educational Policy and Programs - Approved on November 10, 2023



Calendar Change Request Form for Course Changes

See the Calendar Guide for tips on how to complete this form.

Faculty (& Department or Academic Unit):	School of Public Health
Contact Person:	Patrick Hanington/Helen Starodub
Level of change (choose one only) [?]	Undergraduate
For which term will this change take effect?	Upon approval

Rationale

This proposal to cross-list SPH 512 as SPH 412/512 aligns with continued efforts by the School of Public Health to offer undergraduate-level courses in the area of environment and public health. As SPH works to develop an Undergraduate Embedded Certificate in Planetary Health, courses that are prioritized as offerings in this UEC are being made accessible to undergraduate students in all faculties at the U of A. Understanding the assessment and management of risk is a core theoretical and practical dimension of environmental health. Translating basic science related to toxicology, epidemiology and infectious diseases into assessments of risk posed to populations by these hazards is the focus of SPH 412/512.

The content of SPH 412/512 will be the same for both student levels. However, assessment for graduate students enrolled in SPH 512 will differ slightly from the undergraduate students in SPH 412. Marking rubrics will be adjusted for SPH 512 students to assess the higher-level learning objectives expected of graduate students taking this course. Additionally, SPH 512 students must complete one more comprehensive assignment above the common assessments shared between SPH 412 and SPH 512.

SPH 512 has been consistently offered as an elective course through the School of Public Health for many years. It has consistently attracted students in the Masters of Public Health (MPH) and MSc programs offered by the School of Public Health and Environmental Engineering. We anticipate that an undergraduate offering of SPH 412 will also be attractive to students in the fourth year of the science or engineering undergraduate degrees. We expect ~50 undergraduate students to enroll in SPH 412 annually.

The SPH 412/512 course description has been updated as part of this proposal to reflect new knowledge and concepts relevant to risk assessment and management.

Course Template

Current	Proposed
Removed language	New language
Subject & Number	Subject & Number
SPH 512	SPH 512
Title	Title : Environmental Risk Assessment and
Environmental Risk Assessment and Management	Management

	1
Course Career Units - 3 Approved Hours Fee index - 6 Faculty – School of Public Health Department Typically Offered - Fall Term Description: Concepts of risk to health and environment, assessment, management and communication of risk, hazard identification, links to exposure assessment, toxicology and epidemiology , dose response assessment, risk characterization, regulatory and policy science. Note: Credit may not be obtained for both PHS 512 and SPH 512.	Course Career - Graduate Units - 3 Approved Hours 3-0-0 Fee index - 6 Faculty – School of Public Health Department Typically Offered – Any Term Description This course will introduce students to the frameworks of environmental risk analysis in the context of human, ecosystem, and planetary health. Concepts include problem formulation, risk assessment, risk characterization, risk management and the communication of risk. A special emphasis is placed on the science of risk assessment including hazard identification, exposure assessment, effects assessment, dose response assessment/modeling and the characterization of risk. The art of public engagement in risk analysis and how regulations and policy science are also discussed in brief. Note: Credit may not be obtained for both PHS 512 and
New	SPH 512. SPH 412
	Title: Environmental Risk Assessment and Management Course Career - Undergraduate Units - 3 Approved Hours 3-0-0 Fee index - 6 Faculty – School of Public Health Department Typically Offered – Any Term
	Description This course will introduce students to the frameworks of environmental risk analysis in the context of human, ecosystem, and planetary health. Concepts include problem formulation, risk assessment, risk characterization, risk management and the communication of risk. A special emphasis is placed on the science of risk assessment including hazard identification, exposure assessment, effects assessment, dose response assessment/modeling and the characterization of risk. The art of public engagement in risk analysis and how regulations and policy science are also discussed in brief. Note:

Credit may not be obtained for both SPH 412 and SPH 512.

Approved by SPH Faculty Council - December 12, 2023

Committee on Educational Policy and Programs - Approved on November 10, 2023



Calendar Change Request Form for Course Changes

See the <u>Calendar Guide</u> for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Engineering, Mechanical Engineering
Contact Person:	Mahdi Hamidi
Level of change (choose one only) [?]	Graduate
For which term will this change take effect?	Fall 2025

Rationale

The inspiration behind introducing this course comes from recognizing the high potential of advanced nanofabrication techniques and the unique behavior of materials at the nanoscale. In recent years, nanotechnology has emerged as a driving force behind innovation across various industries. Materials exhibit different properties when operating at the nanoscale, which are strongly influenced by their dimensions. This crucial fact highlights the importance of integrating nanoscale fabrication and characterization into our curriculum, equipping students with the skills needed for the future of engineering and materials design.

This course can offer the followings to our students: (i) This course explores the latest nanofabrication and techniques, empowering students to stay at the forefront of technological advancements. They gain expertise in various fabrication methods for nanostructures and 3D nanoarchitected materials which are highly relevant in modern industries. (ii) It emphasizes the application of experimental nanoscale characterization methods, both in-situ and ex-situ, to investigate the mechanics and physics of nanostructures. This foundational knowledge enables students to deeply understand the mechanisms governing nanoscale phenomena in fabricated materials. (iii) Graduates of this course not only gain expertise in nanoscale fabrication and characterization but also learn to identify and apply principles of nanoscale material design to emerging applications. This prepares students for dynamic roles in modern industries, bridging the gap between theory and practical nanotechnology applications.

Importantly, this course has the potential to elevate the reputation of our department and the faculty as one of the leading Canadian universities in emerging technological fields. It complements existing curricula, enhancing students' education by merging theory and application in nanotechnology, ultimately raising the overall quality of our educational offerings. Additionally, it seamlessly aligns with existing nanotechnology resources at the University of Alberta, such as NINT and nanoFAB, amplifying our capabilities and capitalizing on our institutional strengths. This alignment fosters innovation to nanomanufacturing and nanoscale material design.

Comparatively, similar courses are already integrated into the graduate curricula of various international institutions, including ESE536 at the University of Pennsylvania, ME598 at the University of Illinois Urbana-Champaign, Nanofabrication Methods at the University of Cambridge, 2.S981 at MIT, and 402-0595-00V at ETH. While some Canadian courses touch upon related topics (e.g., UofT MIE1744H, Western MME9620, Waterloo NE226 and NE461, UBC ELEC546), this course distinguishes itself through its specific focus on areas that set it apart:

- (i) Unique Skill Set: Graduates from this course possess a distinctive nanomanufacturing skill set not commonly found in other Canadian institutions. It emphasizes the development of 3D nanoarchitected materials tailored for emerging applications, such as nanosensors, microactuators, and microdevices.
- (ii) Nanoscale Characterization: Unlike traditional nanocharacterization courses, this one explores atomic force microscopy-based methods and in-situ nanomechanical testing, providing students with specialized expertise in these crucial areas.

By offering this specialized course, our department stands out in Canada, providing graduates with sought-after skills that align with the latest advancements in nanotechnology, ensuring that our graduates are well-prepared for the demands of modern industries and research.

Course Template

	Proposed Subject & Number: MEC E 661 Title: Nanomanufacturing & Nanocharacterization Course Career: Graduate
*** New Course ***	Units: <mark>3</mark> Approved Hours: 3-0-0 Fee index: 6 Faculty: <mark>Engineering</mark> Department: <mark>Mechanical Engineering</mark> Typically Offered: <mark>Either term</mark>
	Description: An introduction to advanced nanomanufacturing techniques and their physics. A review of nanocharacterization techniques with a focus on experimental nanomechanical analysis. An outline of the mechanics and physics of nanostructures.

Reviewed/Approved by:

REQUIRED:

Approved by Faculty APC on Oct 12, 2023 Approved by the MECE Department Council on Sept 28, 2023; Approved by GPC on Oct 4, 2023 Approved by Faculty Execute Coordinating Committee (ECC) on Oct 24, 2023

OPTIONAL: Reviewed by Department GPC and APC.

Course description and justification

1. Calendar description (as above)

An introduction into advanced nanomanufacturing techniques and their physics. A review of nanocharacterization techniques with a focus on experimental nanomechanical analysis. An outline of the mechanics and physics of nanostructures.

2. Course justification

The inspiration behind introducing this course comes from recognizing the high potential of advanced nanofabrication techniques and the unique behavior of materials at the nanoscale. In recent years, nanotechnology has emerged as a driving force behind innovation across various industries. Materials exhibit different properties when operating at the nanoscale, which are strongly influenced by their dimensions. This crucial fact highlights the importance of integrating nanoscale fabrication and characterization into our curriculum, equipping students with the skills needed for the future of engineering and materials design.

This course can offer the following to our students: (i) This course explores the latest nanofabrication and techniques, empowering students to stay at the forefront of technological advancements. They gain expertise in various fabrication methods for nanostructures and 3D nanoarchitected materials which are highly relevant in modern industries. (ii) It emphasizes the application of experimental nanoscale characterization methods, both in-situ and ex-situ, to investigate the mechanics and physics of nanostructures. This foundational knowledge enables students to deeply understand the mechanisms governing nanoscale phenomena in fabricated materials. (iii) Graduates of this course not only gain expertise in nanoscale fabrication and characterization but also learn to identify and apply principles of nanoscale material design to emerging applications. This prepares students for dynamic roles in modern industries, bridging the gap between theory and practical nanotechnology applications.

Importantly, this course has the potential to elevate the reputation of our department and the faculty as one of the leading Canadian universities in emerging technological fields. It complements existing curricula, enhancing students' education by merging theory and application in nanotechnology, ultimately raising the overall quality of our educational offerings. Additionally, it seamlessly aligns with existing nanotechnology resources at the University of Alberta, such as NINT and nanoFAB, amplifying our capabilities and capitalizing on our institutional strengths. This alignment fosters innovation to nanomanufacturing and nanoscale material design.

Comparatively, similar courses are already integrated into the graduate curricula of various international institutions, including ESE536 at the University of Pennsylvania, ME598 at the University of Illinois Urbana-Champaign, Nanofabrication Methods at the University of Cambridge, 2.S981 at MIT, and 402-0595-00V at ETH. While some Canadian courses touch upon related topics (e.g., UofT MIE1744H, Western MME9620, Waterloo NE226 and NE461, UBC ELEC546), this course distinguishes itself through its specific focus on areas that set it apart:

- (i) Unique Skill Set: Graduates from this course possess a distinctive nanomanufacturing skill set not commonly found in other Canadian institutions. It emphasizes the development of 3D nanoarchitected materials tailored for emerging applications, such as nanosensors, microactuators, and microdevices.
- (ii) Nanoscale Characterization: Unlike traditional nanocharacterization courses, this one explores atomic force microscopy-based methods and in-situ nanomechanical testing, providing students with specialized expertise in these crucial areas.

By offering this specialized course, our department stands out in Canada, providing graduates with sought-after skills that align with the latest advancements in nanotechnology, ensuring that our graduates are well-prepared for the

demands of modern industries and research. Complementary courses within the university include:

MECE 669 – Multifunction Polymer-Based Composites

Multifunctional Polymer-based Composites (MFPC) manufacturing processes, micro- and nanoscale characterization; Modeling strategies for MFPC properties (continuum, atomistic, multiscale); Characteristics and synergistic effects of MFPC with hard and soft inclusions; Modeling, characterization and properties of MFPC with electrically conductive fillers, for enhanced thermal conductivity, with magnetic properties, for EMF shielding/reflection, with increased diffusion barrier properties.

Difference: MECE 669 touches on micro- and nanoscale characterization, with emphasis on polymer composites. The proposed course, alongside nanomanufacturing techniques, will establish a strong basis in nanocharacterization. It places a particular emphasis on experimental nanomechanics methods, including atomic AFM-based techniques such as FFM, TSM, and KPFM. Moreover, it includes in-situ TEM and SEM nanomechanical testing. Students will gain hands-on experience in characterizing materials at the nanoscale.

MECE 662 - Introduction to Polymer Microfabrication

MECE 662 explores microfabrication technologies, MEMS and microfluidics using polymers and plastics, introduction to soft-lithography, choosing polymers for microfabricated products, functional polymers and composites, characterization and testing of microstructured polymers, packaging and bonding of polymers.

Difference: MECE 662 covers the microfabrication of technologies for microfluidic devices, primarily centered around functional polymers and composites. This course also includes aspects of characterization and testing of microstructured polymers. In contrast, the proposed course places its main emphasis on the *nanoscale* fabrication and characterization of various materials, including polymers, ceramics, and metals.

MECE 644 – Multifunction Polymer-Based Composites

Formation, characterization, modelling and applications of polymeric and composite nanofibers. Emphasis on nanofibers produced using electrospinning.

Difference: MECE 644 covers the manufacturing and characterization of polymer composites, with a primary focus on nanofibers. However, the proposed course will concentrate on two main aspects: (i) nanomanufacturing with an emphasis on the development of 3D nanoarchitected materials and (ii) nanocharacterization with a focus on experimental nanomechanical testing.

MECE 664 - Advanced Design and Simulation of Micro and Nano Electromechanical Sensors (MEMS/NEMS)

Advanced topics dealing with MEMS technologies, transduction mechanisms, and microfabricated sensors and actuators. Sensors for acceleration, rotation rate, pressure, and different micro actuators. MEMS in microfluidics and biomedical applications. Chemical, gas, and biosensors.

Difference: MECE 664 touches on microfabrication of sensors. However, the proposed course explores a wide variety of advanced nanomanufacturing techniques such as micro/nano lithography, 2-photon laser lithography, nanoimprinting, nanomanipulation, and thin layer deposition methods.

MECE 682 – Nanomechanics

MECE 662 focusses on physical modelling of nanoscale forces and systems. Surface forces, van der Waals forces, electrostatic forces, Poisson-Boltzmann equation, capillary forces, adhesion contact mechanics, surface energy, tipsurface interaction, adhesion of micro-cantilevers, microbeam arrays, carbon nanotubes, dissipation in MEMS/NEMS, fluid flow with slip, mechanical models for cells, biomembranes, cellular filaments, microtubules, molecular dynamics (MD) simulation.

Difference: The proposed course would be a valuable complement to the theoretical nanomechanics taught in MECE 682. In contrast to MECE 682, this proposed course not only covers nanomanufacturing techniques but also places a strong emphasis on experimental methods for nanomechanical testing. These methods include atomic

AFM-based techniques such as FFM, TSM, and nanoindentation. Additionally, it incorporates in-situ TEM and SEM nanomechanical testing.

CHEM 544 - Characterization Methods in Nanoscience

Introduction to techniques in determining the composition and structure of materials on the nanometer scale. Characterization of atomic, meso-, and micro-structure of materials including impurities and defects. Major topics will include electron microscopy (transmission, scanning, and Auger) and associated spectroscopies (EDX, EELS), surface sensitive spectroscopies (e.g., XPS, AES, IR) and spectrometry (SIMS), synchrotron techniques, X-ray absorption, fluorescence and emission, and scanned probe microscopies (AFM, STM, etc.). The techniques will be examined through real-world nanotechnology case studies.

Difference: CHEM 544 primarily focuses on the characterization of the chemistry, composition, and structure of materials at the nanoscale. However, in the proposed course, the nanocharacterization component places a special emphasis on nanomechanical characterization methods, including atomic AFM-based techniques and in-situ TEM and SEM nanomechanical testing, aiming to better understand the mechanics and physics of materials at the nanoscale.

ECE 559 - Microfabrication and Nanofabrication Topics II

The fabrication process for microelectronics and MEMs applications. Overview of processing steps: silicon wafer material, oxidation, lithography, diffusion, etching and ion implantation, chemical and physical vapor deposition, metallization. Process model. Yield, packaging, and assembly.

Difference: ECE 559 primarily focuses on nanofabrication of microelectronics and semiconductors, with a particular emphasis on batch silicon wafer processes. However, in the proposed course, in addition to the nanocharacterization component, the nanomanufacturing component explores the development of a wide range of 3D nanoarchitected materials tailored for emerging applications, such as nanosensors, microactuators, and microdevices.

MATE 494 - Nanostructured Materials

Fabrication and application of 1D, 2D, and 3D nanostructured materials. Nanoparticles, carbon nanotubes, graphene, thin films, and nanocomposites. Optical, electrical, and mechanical properties and characterization techniques. **Difference:** The proposed course complements the material covered in MATE 494. While MATE 494 focuses on

nanoparticle synthesis and characterization, the proposed course emphasizes the organization and fabrication of nanomaterials into 3D structures through advanced nanomanufacturing techniques. Additionally, the proposed course provides training in nanomechanical characterization methods, such as atomic AFM-based techniques and in-situ TEM and SEM nanomechanical testing, which complements the materials covered in MATE 494.

Graduate Student Feedback:

The course was offered in Winter 2023 under MECE 788 and proved to be a great source of motivation for students, enabling them to develop a deeper understanding of various subject areas including nanofabrication, nano characterization, atomic force microscopy, and nanotribology. The students' expressed desire for similar courses shows the significance of offering this course on a regular basis. Here the students' feedback is cited for reference:

Inc	structions: I am motivated to learn more about these subject areas.	
1118		
1	It was a complete package that give us a background and a new perspective to understand any research paper in the field.	
2	Dr. Hamidinejad is really knowledgeable and he selected current hot topics to teach.	
3	Although the course was not related to my research background, I have learned a lot in this course and it motivates me to learn more and try harder in the future.	
	The subject of the course was high-tech and all the references were from high-impact journals	
In	structions: I increased my knowledge of the subject areas in this course.	
1	The reference from papers were really helpful for a deeper understanding especially nanotribology and the guest lecture on MD simulation	
2	No matter how many questions students tried to ask, he was always more than welcome to address them. I was surprised by the level of the knowledge he has on every single topic and refences he was presenting.	
3	100 %	
	Not only the knowledge of the course but also the way to do research and find papers and read them	
Instructions: Overall the quality of the course content was excellent.		
1	Perfect	
2	It opened a new window to the concept of nanomechanics, nanomaterials, and nano-characterization.	

3. Learning outcomes and graduate attributes

Upon completing this course, students will be able to:

- 1) Explain the fundamental principles and physics underlying various nanomanufacturing methods.
- 2) Evaluate and select appropriate micro/nanofabrication methods for specific applications.
- 3) Explain the fundamental principles behind various nanocharacterization methods.
- 4) Evaluate and select appropriate characterization methods for different nanostructures.
- 5) Explain nanoscale elasticity, strength, tribology of materials.
- 6) Formulate and apply relevant nanoscale fabrication and/or characterization methods to address specific problems based on nanostructures.

4. Relation between learning outcomes and graduate attributes

Not applicable to 600-level courses.

5. Suggested Reading Sources:

There will be no mandatory textbook for this course. Required readings will be sourced from a variety of outlets, including journal articles and freely available online resources. Additionally, the following texts are suggested as recommended resources.

- 1. Andrew N. Cleland, Foundations of nanomechanics: from solid-state theory to device applications. ISBN 978-3-642-07821-7 ISBN 978-3-662-05287-7 (eBook)
- 2. Nanostructures and Nanomaterials: Synthesis, Properties and Applications, G. Gao, Imperial College Press, 2004
- 3. Three-Dimensional Microfabrication Using Two-Photon Polymerization, 2nd Edition, Editor: Tommaso Baldacchini, eBook ISBN: 9780128178287, Paperback ISBN: 9780128178270
- 4. Meyer, Hug, Bennewitz, Scanning probe microscopy. ISBN 978-3-642-07737-1 ISBN 978-3-662-09801-1 (eBook)

6. Course outline and schedule

Wee k	Section	Торіс	Deliverable s (tentative)
1	Introduction to Nanomanufacturing and Nanocharacterization	 Course introduction and overview Introduction to Nanoengineering Introduction to Nanostructures and Nanoarchitected Materials 	
2	Atomic/Molecular Structure of Materials, Surfaces, and Forces	 Intra- and intermolecular forces Crystal structure and defects Molecular structure of polymers 0D-3D nanostructures 	
3	Nanofabrication of Materials	Micro/nano lithography,2-photon laser lithography,	
4		 2-photon laser lithography, nanoimprinting, nanomanipulation, self- assembly This layer dependition (D)(D, C)(D, ALD) 	Assignment 1
5		• Thin layer deposition (PVD, CVD, ALD)	Assignment 1 Due
6	Characterization and Properties of Nanostructures	Atomic Force Microscopy (AFM)Friction force Microscopy (FFM),	
7 8		 Transverse Shear Microscopy (TSM) Kelvin Probe Force Microscopy In-situ SEM/TEM Nanomechanical Testing 	Assignment 2 Due
9	Mechanics and physics of nanostructures	Nanoscale elasticity,Nanoscale strength	Assignment 3 Due
10		 Nanotribology Computational Nanomechanics (Guest Speaker: Dr. Farzin Najafi from GaN Systems Inc.) 	
11	Nanostructures: Applications and Future	NanocompositesBio-inspired nanoarchitectures	Project Phase 1 Due

12	Perspective	 Polymers Paradigm shift offered by nanoarchitected materials 	
13	Project presentations		Project Phase 2 due
Final Exam			

7. Expected and types of assessment and suggested grade weight:

Assessment Type	Weight
3 Assignments	30%
Project – Phase1	10%
Project Phase 2	20%
Final Project Presentation	10%
Final Exam	30%

Student performance will be evaluated through a combination of **individual** homework assignments, **group** course project and a final exam.

Assignment 1: Nanofabrication Methodology Assessment (10%)

Objective: Assess the ability to select appropriate micro/nanofabrication methods for specific applications. (Learning Outcome 1&2)

Description: Students will be presented with a set of hypothetical nanostructure fabrication challenges. They must match each challenge with the most suitable micro/nanofabrication method from a provided list. A brief explanation of their choices is required, focusing on factors influencing their decisions.

Assignment 2: Characterization Methodology Selection (10%)

Objective: Objective: Evaluate the capability to choose suitable characterization methods for diverse nanostructures. (Learning Outcome 3&4)

Description: Students will receive a list of nanostructures and a corresponding list of characterization tools. For each nanostructure, they will select the most appropriate characterization tool(s) and briefly justify their choices. This exercise tests their understanding of how to match characterization techniques with specific nanostructural properties.

Assignment 3: Case Study (10%)

Objective: Apply knowledge of micro/nanofabrication methods and characterization techniques in practical scenarios. (Learning Outcome 1-4)

Description: Students will analyze a real-world nanotechnology application or research paper, evaluating the underlying physics of the micro/nanofabrication methods and characterization techniques used. Their analysis should emphasize the suitability of these choices for the specific nanostructures involved, demonstrating their understanding of practical applications, and suggesting alternative approaches for addressing the problem of interest.

Course Project Description (40%):

This project challenges small teams of students (group of 2-3) to dive into nanoscale materials analysis and innovation. It is divided into two phases: analysis and innovation. Each phase contributes to the assessment of specific learning outcomes.

Phase 1: Nanoscale Materials Analysis (10%)

• Teams will select a real-world nanomaterial or nanotechnology-related problem. This could be related to a specific industry or field of interest, such as biomedical, electronics, or energy.

• They will conduct an extensive analysis of the chosen nanomaterial's properties (e.g., nanoscale elasticity, strength, and tribological). This analysis should involve reviewing relevant research papers, conducting simulations (if applicable), and exploring available data. Teams will prepare a written report summarizing their findings on the nanoscale properties of the chosen material.

Phase 2: Nanoscale Innovation (30%)

• Based on the nanoscale properties analyzed in Phase 1, teams will propose an innovative solution or application that leverages these properties to address the problem of interest.

• They will formulate a plan for fabricating and characterizing the necessary nanostructures for their proposed solution. This proposed plan should include selecting appropriate fabrication and characterization methods based on their analysis.

• Teams will work on implementing their plan and writing a proposal for the development and characterization of required nanostructures.

• Finally, teams will prepare a proposal (20%) and deliver a presentation (10%) summarizing their innovative solution, the fabrication process, characterization results, and the potential impact of their solution on the identified problem.

Project Assessment:

Phase 1 assesses the understanding of nanoscale properties of materials (Learning Outcome 5).

Phase 2 assesses the formulation and application of relevant nanoscale fabrication and characterization methods for a real-world problem (Learning Outcome 6).

This project encourages collaboration, practical application of knowledge, and innovative thinking while effectively assessing the specified learning outcomes.

Final exam (30%):

The final exam will evaluate students' proficiency in addressing all the course learning outcomes, complementing the assignments and the project.

8. Lab components

None.

9. Required resources

- No additional space is required.
- No additional staff is required.

• TA is not required for the class size smaller than 20 graduate students.



for Program and Regulation Changes See the Calendar Guide for tips on how to complete this form.

Faculty (& Department or Academic Unit):	Science (Computing Science)
Contact Person:	Leslie Acker
Level of change: (choose one only)	Undergraduate
	Graduate
Type of change request: (check all that apply)	Program
	✓ Regulation
For which term is this intended to take effect?	Fall 2024
Does this proposal have corresponding course changes? (Should be submitted at the same time)	Νο

Rationale

Things to consider (maximum 500 words): Why is this being changed; How will it benefit students/department/unit; How is this comparable to similar programs (internal or external); Historical context; Impacts to administration or program structure; Consultation with stakeholders

Requested for Early Implementation

Proposal 1: To change the wording for the application deadline to thesis-based M.Sc. and Ph.D. programs.

The current wording on the calendar is confusing. The majority of our students are international. The intention was to move our admissions deadline earlier to give accepted international students more time to successfully gain a visa and begin in the fall (which is much preferred to a late start). Furthermore, many of our competitor departments (both in Canada and US) have deadlines on December 1 or December 15. We expect an earlier deadline will not inconvenience many applicants and will additionally allow us to start processing the applications sooner and make offers at times similar to our competitors (currently, our offers often arrive later than other places, and sometime after applicants have already accepted a competitor's offer).

Proposal 2: We currently require English Language Test marks higher than minimum requirements of GPS (e.g. for TOEFL the minimum requirement of GPS is 90 overall with minimum 21 in each category, while we require minimum 100 overall and minimum 21 in each category; for IELTS GPS requires minimum 6.5 overall with minimum 6 in each test band; while we require minimum 7.0 overall but 6.0 in each test band). For the IELTS test, we propose to adjust our minimum in each band to be 6.5 (instead of 6) to correctly reflect the higher overall minimum 7.0 we require (and corresponds to minimum 20-22 in each category for TOEFL).

Calendar Copy

URL in current Calendar (or "New page") https://calendar.ualberta.ca/preview_program.php?catoid=39&poid=47593&returnto=12424	
Current Copy: Removed language	Proposed Copy: <mark>New language</mark>

For all programs EXCEPT the MSc (course-based) with a specialization in Multimedia, the early application deadline is December 15. Assessment of applications will begin on this date as well as consideration for funding and scholarships: Applications will continue to be accepted until Jan 15.	For all programs EXCEPT the MSc (course-based) with a specialization in Multimedia, the application deadline is December 15.
Where applicable, applicants must provide proof of English Language Proficiency (refer to <u>English Language Requirement</u>). Any one of the following is acceptable:	Where applicable, applicants must provide proof of English Language Proficiency (refer to <u>English Language Requirement</u>). Any one of the following is acceptable:
 a minimum TOEFL score of 100 with a minimum score of 21 on each of the individual skill areas (internet-based), or equivalent a minimum of 6.0 on each band on the IELTS with an overall minimum score of 7.0, a minimum overall score of 70 on the CAEL with at least 60 on each subtest a minimum overall score of 68 on the PTE. 	 a minimum TOEFL score of 100 with a minimum score of 21 on each of the individual skill areas (internet-based), or equivalent a minimum of 6.5 on each band on the IELTS with an overall minimum score of 7.0, a minimum overall score of 70 on the CAEL with at least 60 on each subtest a minimum overall score of 68 on the PTE.

REQUIRED: Faculty Council (or delegate) and approval date. Jan 23, 2024

GPST - Feb. 26, 2024 GPS Council - March 13, 2024 (Anticipated) Programs Committee - March 14, 2024 (Anticipated)

Office of the Registrar Code: CCRFP