MEMORIAL UNIVERSITY OF NEWFOUNDLAND
SENATE

The regular meeting of Senate was held on February 8, 2022, at 4:00 p.m. via Webex

62. PRESENT

Dr. F. Strzelczyk, Dr. R. Shea, Dr. I. Sutherland, Dr. D. Hardy Cox, Dr. A. Warren, Dr. G. Watson, Dr. P. Banahene Adjei, Dr. D. Keeping, Dr. S. Bugden, Dr. K. Bulmer, Dr. A. Craig, Dr. A. Cunsolo, Dr. I. Dostaler, Dr. M Hunter, Dr. T. Fridgen, Dr. G. Galway, Dr. A. Gaudine, Dr. K. Jacobson, Dr. G. Naterer, Dr. M. Piercey-Normore, Ms. J. Porter, Ms. M. Snow, Dr. A. Sullivan, Dr. C. Andersen, Dr. K. Anderson, Dr. D. Behm, Dr. A. Bittner, Ms. L. Browne, Dr. N. Catto, Mr. C. Couturier, Dr. G. Cox, Dr. R. Croll, Mr. D. Duda, Mr. E. Durnford, Dr. J. Flynn, Dr. S. Ganz, Dr. G. George, Dr. E. Haven, Dr. J. Hawboldt, Dr. R. Haynes, Dr. K. Hodgkinson, Dr. P. Issahaku, Dr. E. Kendall, Dr. D. Kelly, Dr. C. Kozak, Dr. J. Lokash, Dr. S. MacDonald, Dr. D. O'Keefe, Dr. S. O'Neill, Dr. D. Peters, Dr. A. Pike, Dr. J. Pridham, Dr. C. Purchase, Ms. H. Skanes, Dr. K. Snelgrove, Dr. M. Stordy, Mr. P. Sullivan, Dr. L. Twells, Ms. C. Walsh, Dr. J. Westcott, Mr. A. Gharmartale, Mr. B. Mishkat, Ms. F. Ahmed, Mr. D. Dunphy, Ms. M. Feltham, Ms. H. Hennessey, Ms. S. Merchant, Mr. J. Mweemba, Ms. E. Redmond, Dr. M. Haghiri

APOLOGIES FOR ABSENCE

Apologies were received from Dr. V. Timmons, President and Vice-Chancellor.

Chair of the Senate Committee on Undergraduate Studies (Standing Invitation)

Dr. S. Sullivan

WELCOME

Dr. Strzelczyk, Deputy Chair welcomed all Senators and observers to this meeting.

63. MOTION TO ADOPT AGENDA

It was moved by Dr. Galway, seconded by Ms. A-M Sullivan and carried to adopt the agenda.

64. MINUTES

Ms. Snow, Secretary of Senate indicated that the minutes from the January meeting were not yet available and will be ready for the March meeting of Senate.

65. REMARKS FROM DEPUTY CHAIR OF SENATE

In the absence of the President, the only remarks bought forward were from the Deputy Chair of Senate.

Dr. Strzelczyk noted her upcoming departure as Provost and Vice-President (Academic) effective May 1, 2022. In doing so, she expressed her gratitude for the time she has spent at Memorial but noted that due to personal circumstances she accepted a new position at Western University. She then noted that Dr. Margaret Steele, Dean of the Faculty of Medicine, will be stepping in as Provost and Vice President (Academic) *Pro tempore,* until the search for a permanent replacement can take place.

Dr. Strelcyzk then provided an update with regard to the return to in-person instruction for the Winter semester following which she responded to questions from Senators.

CONSENT AGENDA

It was moved by Dr. Galway and seconded by Dr. George and carried that the consent agenda comprising items 66.1through 66.8 be approved as follows:

66. Report of the Senate Committee on Undergraduate Studies

66.1 Faculty of Education

Page 86, 2021-2022 University Calendar under sub-heading 9.5 Bachelor of Education (Primary/Elementary) as a First Degree delete Table 5 Bachelor of Education (Primary/Elementary) as a First Degree in its entirety and replace with the following:

"Table 5 Bachelor of Education (Primary/Elementary) as a First Degree

Term	Required Courses
	• 60 credit hours in courses required for admission
Fall – Semester 1	• ED 3617 • ED 4240 • Human Kinetics and Recreation 2001 • 6 credit hours in non-Education courses
Winter - Semester 2	• ED 3312 • ED 3940 • ED 4242 • 6 credit hours in non-Education courses • ED 401T

Fall – Semester 3 (Professional Year)	• One of ED 2520 or 3920 is required for students with a music focus area in place of ED 3151 & 3212 (course to be determined by the Academic Program Office, Faculty of Education) • ED 3050 is required for students with a French focus area in place of ED 3151 & 3212. • ED 3151 • ED 3212 • ED 3273 • ED 3274 • ED 3322 • ED 3942 • ED 3953 • ED 402T • ED 5001 (non-credit)
Winter - Semester 4 (Professional Year)	• ED 3120 • ED 3543 • ED 3962 • ED 4206 • ED 4391 • ED 4427 • ED 403T • ED 5001 (non-credit)
Fall – Semester 5	• ED 404T
Winter - Semester 6	• ED 2051 • ED 3131 • ED 3484 • ED 3566 • ED 3574 • ED 4381 • ED 5001

“

Page 89, 2021-2022 University Calendar, under sub-heading 9.8.2 Bachelor of Music Education as a Second Degree delete Table 11 Bachelor of Music Education as a Second Degree and in its entirety and replace with the following:

“Table 11 Bachelor of Music Education as a Second Degree

• ED 3617 or 4260 • ED 2500, 2515, 2520, 3920, 3925, 4240, 4381 and 4830 • ED 403X • 3 other credit hours in Education other than Music Education. It is recommended that these 3 credit hours be used toward the acquisition of instructional content in a second teachable area.

“

Page 92, 2021-2022 University Calendar under sub heading 16 Course Descriptions to delete **“**3690 Collaborative Practice (SE)” its entirety and replace with the following:

“3690 Collaborative Practice/Monitoring Student Progress examines theoretical and practical aspects of collaborative practice within current service delivery models of case planning for students with diverse learning needs. Emphasis is on exploring issues of power/empowerment, consultation, communication, collaboration, conflict resolution/problem-solving, advocacy, monitoring student progress through informal and formal means, individual education plans (IEP), and developing student focused goals and objectives. Perspectives of parents and families, educators, and community resource professionals are explored through family-focused approach to effective planning in contemporary schools.
PR ED 4240”

Delete course “3680 Inclusive Practices for Students with Autism Spectrum Disorder (ASD)” in its entirety and replace with the following:

“3680 Therapeutic Interventions for Students with Autism Spectrum Disorder (ASD) in Educational Settings (SE) is intended to provide learners with an in-depth knowledge of the unique characteristics and learning needs of children and adolescents with autism spectrum disorders (ASDs). Education 3680 will present worthwhile strategies to accommodate the special learning needs of individuals with ASD enabling special education resource teachers to support classroom teachers within the inclusive classroom setting. The course considers current research related to a range of educational, psychological, social, and cultural issues.
PR: ED 4240 or the former ED 3220 or ED 3230”

Delete “3620 Nature and Charactertics of Emotional/Behavioural Disorders (SE)” in its entirely and replace with the following:

“3620 Nature and Characteristics of Emotional/Behavioural Disorders (SE) includes an examination of procedures for the early identification of children and adolescents with behavioural disabilities and major systems of classification. It critically examines causes of emotional and behavioural disorders and implications for assessment and intervention.
PR: ED 4240, or the former ED 3220 or ED 3230”

Page 90, 2021-2022 University Calendar under sub-heading 9.9 Bachelor of Special Education delete “Table 12 Bachelor of Special Education” in its entirety and replace with the following:

“Table 12 Bachelor of Special Education

Required Education Courses	**Elective Education Courses**

ED 3040 ED 3600 ED 3620 ED 4531 ED 3650 ED 3670	18 Credit hours chosen from: ED 3640, 3660,3680, 3690, 3941, 4505, 4510, 4515, 4520, 4540, 4541, 4543

“

Delete “3630 Nature and Characteristics and Learning Disabilities (SE)” in its entirety and replace with the following:

“**4531 Specific Learning Disorders** examines our theoretical understanding of the nature and characteristics of specific learning disorders. It discusses contemporary understandings and current research and relates such information to practice. It investigates specific teaching methods, use of assistive technology and instructional technology, and programming practices as they pertain to reading, writing, mathematics, social skills, and metacognitive skills for students with identified specific learning disorders.
CR: the former ED 3231
PR: ED 4240 (or the former ED 3220 or ED 3230)”

Page 92, 2021-2022 University Calendar under the sub-heading 16 Course Descriptions add the new course “ED 3670 Responding to Diversity”

“ED 3670 Responding to Diversity addresses universal design for learning, response to intervention, and differentiated instruction. It explores how universal design for learning can support diversity through the implementation of strategies to support social and emotional learning and inclusive instructional practice. The course examines how response to intervention strategies provides inclusive instructional practice (Tier 1), and individualized assessment and programming (Tier 2 and 3).
PR: ED 4240 or the former ED 3220 or ED 3230”

66.2 Faculty of Engineering

Page 122, 2021-2022 University Calendar under the sub-heading 11.1 Civil Engineering amend as follows:

Amend the course “CIV 3440” to read as follows:

“CIV 3440 Mathematics for Civil Engineering I (same as the former ENGI 3425) includes functions of a single parameter, conic sections, polar coordinates, partial differentiation, multiple integrals, sequences & series, and an introduction to first-order ordinary differential equations.

CH: 4
CR: the former ENGI 3425 LC: 4
OR: tutorial 1 hour per week
PR: Mathematics 1001 and 2050”

Amend the course “CIV 7240” to read as follows:

“**CIV 7240 Geotechnical Engineering III** (same as the former ENGI 7723) examines geotechnical engineering analysis and design methods; subsurface investigation; limit state design of shallow foundations and mat foundations in soil and rock; foundations in cold regions; design of axially and laterally loaded piles; and flexible retaining structures (sheet piles).

CR: the former ENGI 7723
PR: CIV 5230 or the former ENGI 5723”

Amend the course “CIV 7620” to read as follows:

“CIV 7620 Environmental Geotechniques (same as the former ENGI 6718, the former ENGI 7718) examines soil characteristics; soil water interactions; soil contaminants; advection, diffusion, dispersion, adsorption, and biodegradation; contaminated site characterization; soil and groundwater remediation; waste containment and minimization.
CR: the former ENGI 6718, the former ENGI 7718 OR: six 1-hour tutorials per semester
PR: CIV 5230 or the former ENGI 5723”

Amend the course “**8630 Environmental Assessment, Monitoring and Control**” to read as follows:

“(same as the former ENGI 8717) covers pollution monitoring, and sampling network design; water quality and air quality modelling; environmental risk assessment; environmental impact assessment; site remediation and hazardous waste management, and environmental statistical analysis. There are relevant field trips to local wastewater treatment and landfill facilities, as well as case studies.

CR: the former ENGI 8717 OR: at least 2 field trips
PR: CIV 4610 or the former ENGI 4717”

Page 118, 2021-2022 University Calendar under the heading 6.6 Process Engineering Program Regulations delete the section entitled 6.6.1 Process Engineering Major in its entirety and replace with the following:

"6.6 Process Engineering Program Regulations

6.6.1 Process Engineering Major

- The full-time 141 credit hour Bachelor of Engineering (Co-operative), Process Engineering Major, requires eight academic terms and four work terms.
- The 141 credit hours shall normally be taken in the academic terms and order as set out in **Table 7 Process Engineering Major**.
- Beginning in Academic Term 6, a student will follow the Chemical and Bioprocess Stream or the Mineral and Energy Resources Stream, with elective course options as outlined in **Table 7 Process Engineering Major**.
- Work terms shall normally be taken in the order as set out in **Table 7 Process Engineering Major**.
- Process Engineering students may complete a minor in Chemistry as outlined under **Faculty of Science, Chemistry, Minor in Chemistry**.

Table 6 Process Engineering Major

Term	Required Courses	Elective Courses
Engineering One	Chemistry 1050 ENGI 1010, 1020, 1030, 1040 3 credit hours in English at the 1000 level Mathematics 1000, 1001, 2050 Physics 1050, 1051	Students who are expecting to successfully complete the Engineering One requirements by the end of the Winter semester may apply to undertake a work term during the Spring semester. In this case, the prerequisite course ENGI 200W is expected to be successfully completed during the Fall semester. All other students are expected to successfully complete ENGI 200W in the Winter semester of Engineering One.

In addition to meeting the requirements outlined below, a student must successfully complete four Complementary Studies courses as described under **Description of Program, Complementary Studies**.		
Fall Academic Term 3	Chemistry 1051, 2400 ENGI 3101, 3424 Mechanical and Mechatronics Engineering 3401 PROC 3000	
Winter	ENGI 001W or 002W	
Spring Academic Term 4	ENGI 4430 PROC 4002, 4021, 4025, 4061	
Fall	ENGI 001W OR 002W OR 003W	
Winter Academic Term 5	ENGI 4421, PROC 5001, 5002, 5071, 5092	
Spring	ENGI 002W or 003W or 004W	
Fall Academic Term 6	PROC 6025,6031, 6061, 6071	3 credit hours from Technical Streams courses, Academic Term 6
Winter	ENGI 003W or 004W or 005W (optional)	
Spring Academic Term 7	PROC 7021, 7040, 7077	6 credit hours from Technical Streams courses, Academic Term 7
Fall	ENGI 004W or 005W (optional) or 006W (optional)	
	ENGI 8152 PROC 8040	One free elective which must be a 2000-level or higher course from any academic unit. Selection of a course must be approved by the Head of the Department of Process Engineering. 9 credit hours from Technical Streams courses, Academic Term 8

”

Under the heading 6.6 Process Engineering Program Regulations delete the section entitled 6.6.1 Technical Streams in its entirety and replace with the following:

"6.6.1.1 Technical Streams

- Technical Streams are available in the areas of **Chemical and Bioprocess,** and **Mineral and Energy Resources**.
- A student may experience scheduling difficulties if courses are selected from more than one Technical Stream.
- The selection of a course as a technical stream course from outside these lists requires the approval of the Head of the Department of Process Engineering.

Chemical and Bioprocess Technical Stream

Term	Required Courses	Elective Courses
Academic Term 6	PROC 6151	
Academic Term 7 Between Term 7 and Term 8 a student must choose four courses from the elective courses		PROC 7125, 7131, 7141, 7171
Academic Term 8 Between Term 7 and Term 8 a student must choose four courses from the elective courses.	PROC 8125	PROC 8141, 8151, 8170 Electrical and Computer Engineering 8210

Mineral and Energy Resources Technical Stream

Term	Required Courses	Elective Courses
Academic Term 6	PROC 6202	
Academic Term 7	PROC 7291, 7293	
Academic Term 8 A student must choose three courses from the elective .		PROC 8125, 8276, 8291, 8292, 8293

"

Under the heading 6.6 Process Engineering Program Regulations amend sub-section 6.6.2 Minor in Applied Science - Process Engineering for Chemistry Majors and Honours as follows:

"6.6.2 Minor in Applied Science - Process Engineering for Chemistry Majors and Honours

For Chemistry Majors or Honours …

7. 6 credit hours chosen from:
   a. PROC 5001 (or the former ENGI 5601)
   b. PROC 6025 (or the former ENGI 6621 or the former PROC 6021)
   c. PROC 6031 (or the former ENGI 6631)..."

Page 133, 2021-2022 University Calendar section 11.7 Course Descriptions, amend the second paragraph as follows:

"11.7 Process Engineering

…

Process Engineering courses are identified by a four-digit numbering system, the first two digits signifying the following:
The first digit denotes the academic term during which the course is normally offered.
The second digit denotes the primary areas of study, namely:
0: Process Engineering courses common to both technical streams
1: Chemical and Bioprocess Stream
2: Mineral and Energy Resources Stream
9: Special Topics
Non-departmental Engineering courses are designated by ENGI.
Process Engineering courses are designated by PROC."

Page 125, 2021-2022 University Calendar under the heading 11.3 Electrical and Computer Engineering amend the course 8210 Supervisory Control and Data Acquisition as follows:

"8210 Supervisory Control and Data Acquisition …

PR: ECE 5200 or the former ENGI 5821 or Process Engineering 7021 or Mechanical and Mechatronics Engineering 6202 or the former ENGI 6951, or Process Engineering 7021 or the former ENGI 7621"

Page 116, 2021-2022 University Calendar, under the heading 6.4.1.1 Technical Streams delete the table entitled Technical Stream Required Courses Table and replace with the following:

"Technical Stream Required Courses Table

Stream	Academic Term 6	Academic Term 7	Academic Term 8
Biomedical	Human Kinetics and Recreation 2311	Medicine 6250	Human Kinetics and Recreation 4703

Mechanics and Materials		ME 7104 ME 7703	ME 8604
Mechatronics		ME 7205 ME 7703	ME 8305
Petroleum	Process Engineering 6202	Process Engineering 7291	Process Engineering 8291
Thermo-Fluids		ME 7404 ME 7405	ME 8406

“

Delete the table Technical Stream Elective Courses Table in its entirety and replace with the following**:**

“Technical Stream Elective Courses Table

Stream	**Elective Courses**
Biomedical	Electrical and Computer Engineering 7410 Electrical and Computer Engineering 8410 ME 7204 ME 7205 ME 7603 ME 8504
Mechanics and Materials	ME 7105 ME 7603 ME 8106 ME 8304 ME 8605 ME 8606
Mechatronics	Electrical and Computer Engineering 7200 Electrical and Computer Engineering 7410 Electrical and Computer Engineering 8410 Electrical and Computer Engineering 8610 ME 7204 ME 8304
Petroleum	Civil Engineering 8580 ME 7405 ME 7503 ME 8106 Process Engineering 7171 Process Engineering 8292 Process Engineering 8276

Thermo-Fluids	ME 7503 ME 7603 ME 8407 ME 8504 ME 8505 ME 8506

“

Page 129 2021-2022 University Calendar under heading 11.5 Mechanical Engineering amend the following courses:

“3101 Chemistry and Physics of Engineering Materials I (same as the former ENGI 3911) is an introduction…
CR: the former ENGI 2205, the former ENGI 3911, Process Engineering 5092
LH: at least four 3-hour sessions per semester
OR: tutorial 1 hour per week
PR: Chemistry 1050”

“5103 Chemistry and Physics of Engineering Materials II (same as the former ENGI 5911) examines ...
CR: the former ENGI 3205, the former ENGI 5911, Process Engineering 5092
LH: at least four 3-hour sessions per semester
OR: tutorial 1 hour per week
PR: ME 3101 or the former ENGI 3911”

Under the sub-heading 11.7 Process Engineering amend the title of the following course:

“3000 Introduction to Sustainable Process Engineering”

Insert the following new course:

“5092 Chemistry and Physics of Engineering Materials introduces the structure and properties of engineering materials, in particular metals, alloys, semiconductors, ceramics, glasses and polymers. Topics include a review of atomic bonding, discussion of basic crystalline and amorphous structures, phase diagram, mechanical properties of the materials. Selection of materials for process engineering applications, corrosion and degradation of material will be also covered in the course.
CR: Mechanical and Mechatronics Engineering 3101, Mechanical and Mechatronics Engineering 5103
PR: Completion of Academic Term 4 of the Process Engineering program”

Delete the course 6021 Process Modelling and Analysis in its entirety and replace with the following:

“6025 Process Modelling and Simulation introduces the concepts of process model building and its application in design and process operations. It includes the fundamentals of process modelling, lumped parameter dynamic models, distributed parameter dynamic models, application of process models, and computer aided process design. The course provides hands on experience to use a process simulator effectively for development and analysis of flowsheets, mass and energy balances, sizing of individual equipment and process units including reactor, separator, and heat exchangers.
CR: the former ENGI 5621, the former ENGI 6621, the former PROC 6021
LH: ten 3-hour sessions per semester
PR: PROC 4021 or the former ENGI 4621, PROC 4025 or the former ENGI 4625”

Delete the course 6202 Offshore Petroleum Geology and Technology in its entirety and replace with the following:

“6202 Natural Resources Geology and Formation Evaluation (same as the former ENGI 6602) covers the fundamentals of petroleum geology, formation evaluation and well logging. Topics include rock types; economic minerals; sedimentary basins and formation; hydrocarbon traps and seals; reservoir fluids; well and core logging fundamentals; in situ stress; lithology identification and permeability; formation and fluid identification; formation density and porosity; pore fluids and saturation; integrated logging and resource evaluation.
CR: the former ENGI 6602
PR: completion of Academic Term 5”

Amend the course 7021 Process Dynamics and Control as follows:

“7021 Process Dynamics and Control (same as the former ENGI 7621) …
CR: the former ENGI 7621
LH: at least six 2-hour sessions per semester
PR: PROC 6025 or the former PROC 6021 or the former ENGI 6621 or the former ENGI 5621”

Delete the course “7123 Process Simulation**”** in its entirety.

Insert the following new courses:

“7125 Process Data Analytics covers all necessary elements, beginning from data collection to model development, to conduct a data analysis project in a process plant. The course focuses on data quality evaluation and preprocessing of data to ensure the fidelity of data. A range of unsupervised techniques including several variants of principal component analysis (PCA), support vector machine (SVM) and clustering algorithms will be covered. Students will also receive hands on training on various Matlab toolboxes and Python libraries.
CR: the former ENGI 7623, the former PROC 7123

PR: PROC 6025 or the former ENGI 5621 or the former ENGI 6621 or the former PROC 6021"

"7131 Advanced Reactor Design will build on previous courses in reaction engineering with more analysis of reactor designs involving complex fluid flow and/or complex kinetics and catalysts. The course will also cover bioreactor design.
PR: PROC 6031 or the former ENGI 6631"

"7141 Bioprocess Engineering I covers the fundamentals of chemical engineering applied to biomass/biological based processes, from valorisation of virgin/waste biomass to biomass as the bioprocess. The focus is in bioprocessing as it relates to the natural resource industries and associated markets. This course covers the fundamentals related to biomass and bioprocessing including: composition of biomass and biomass processing (biochemical, thermochemical, chemical, and physical), and associated products. The course will highlight "green" processes that minimize waste and energy.
PR: PROC 5001 or the former ENGI 5601, PROC 5002 or the former ENGI 5602, PROC 6031, or the former ENGI 6631"

Delete the course 7291 Petroleum Production Engineering and replace with the following:

"7291 Sustainable Oil Production & Gas Storage I (same as the former ENGI 8691) examines the fundamentals to sustainably producing fossil fuels, in-situ carbon utilization and sequestration, and hydrogen storage. Students will be able to describe rock and fluid properties then use their knowledge of Darcy's Law and apply it to determine how much CO_2/H_2 can be stored or oil/gas produced. Students will learn material balances of single phase flow (liquid and gas) in porous media, natural forces, well inflow and performance, and how to predict and maximize fluid injection and production
CR: the former ENGI 8691
PR: completion of Academic Term 6"

Delete the course 7292 Drilling Engineering and replace with the following:

"8292 Drilling Engineering (same as the former ENGI 8692, the former PROC 7292) covers both offshore and onshore drilling operations and includes: rotary drilling rig operations, well construction sequence, drill string, drill bits, well bore hydraulics, casing and well heads, cementing, well control, directional and horizontal drilling, well planning and fishing operations, and extended reach, horizontal and multilateral well drilling techniques.
CR: the former ENGI 8692, the former PROC 7292
LH: Two 3-hour lab sessions per semester
PR: completion of Academic Term 6"

Insert the following new courses:

"**7293 Mineral Processing and Tailings Management** covers the fundamentals of mineral processing and emerging practices and technologies that result in the generation of a mineral concentrate. Topics include rock fragmentation leading to run-of-mine ore, comminution and mineral liberation, sensor-based ore sorting, gravity separation, magnetic separation, electrical separation, froth flotation, dewatering, and tailings transportation and storage. Advanced topics include process simulation and control, practical processes of metallic and non-metallic ore dressing,
LH: at least five 3-hour sessions per semester
PR: completion of Academic Term 6"

"8125 Artificial Intelligence in Process Engineering covers the fundamentals of machine learning and artificial intelligence relevant to process and petroleum engineering systems. Topics will include regression analysis, concepts of optimization for machine learning, Neural Network, Convolution Networks, Recurrent and Recursive Nets, Reinforcement Learning, as well as Statistical Machine Learning with a focus on the use of process data.
PR: completion of Academic Term 6"

"8141 Bioprocess Engineering II focuses on the introduction of downstream bioprocessing, with applications covering biopharmaceutical manufacturing, extraction of oils from natural sources, minerals bioprocessing, and environmental applications. Bioseparation techniques using supercritical fluid extraction, crystallization and liquid and ion-exchange chromatography will be covered in this course.
PR: PROC 7141

Delete the course 8191 Mining and Metallurgical Process Engineering in its entirety and replace with the following:

"8293 Extractive Metallurgy covers the fundamentals of pyrometallurgy, hydrometallurgy and electrometallurgy that extract metals from ores and mineral concentrates. Topics include thermodynamics and reaction kinetics of extractive metallurgical processes; electrolytic reduction of molten salts; metal refining processes; materials preparation in the metallurgical industry; equipment selection and operation; and sustainable technologies and practices.
CR: the former ENGI 7691, the former
PROC 8191 LH: at least four 2-hour
sessions per semester
PR: PROC 7293"

Delete 8270 Reliability Engineering in its entirety and replace with the following:

“8170 Reliability Engineering (same as the former ENGI 8670 and the former PROC 8270) is an introduction to reliability engineering; physics of failure and failure mechanism, reliability measures and assessment; reliability of components and parts; complex system reliability and availability analysis; and field reliability assessment. The course includes case studies and a project.
CR: the former ENGI 8670, the former PROC 8270
PR: completion of Academic Term 6”

Delete 8276 Natural Gas Engineering in its entirety and replace with the following:

“8276 Decarbonization Strategies in Gas Industry (same as the former ENGI 8676) investigates the carbon emitted from the gas industry and how to reduce it. The course describes gas processes, design methods, operating procedures, and challenges of gas production, carbon capture facilities and their use in blue hydrogen production. The course covers separation operations, hydrate prevention and control, gas dehydration, NGL recovery and dew point control, gas transmission and pipeline design and transportation systems.
CR: the former ENGI 8676
PR: Completion of Academic Term 6”

Delete 8290 Petroleum Production Engineering in its entirety and replace with the following:

“8291 Sustainable Oil Production & Gas Storage II (same as the former ENGI 8690 and the former PROC 8290) continues to examine flow in porous media expanding to multiphase flow and the challenges of producing and injecting fluids into a reservoir accounting for capillary pressure and phase behaviour. Flow assurance challenges, enhanced recovery methods, CO_2 utilization and storage, as well as strategies to optimize production and gas injection.

CR: the former ENGI 8690, the former PROC 8290
PR: Completion of Academic Term 6”

List the following courses from section 11.7 Process Engineering as inactive:

“8294 Downstream Processing - inactive course.”

“8296 Petroleum Refining Engineering - inactive course.”

66.3 School of Music

Page 404, 2021-2022 University Calendar under the heading 4.6 Honours Degree amend as follows:

“4.6 Honours Degree
An honours degree signifies superior academic achievement. The Bachelor of Music (Honours) is available to students in all Bachelor of Music major programs and the Joint Degrees of Bachelor of Music and Bachelor of Business Administration program. To be considered for an Honours Degree, the student must so indicate on the prescribed "Application for Graduation "…”

Page 416, 2021-2022 University Calendar under the heading 6.14 Bachelor of Music (Honours) amend the first paragraph as follows:

“6.14 Bachelor of Music (Honours)
The Bachelor of Music (Honours) will be awarded to students in all Bachelor of Music major programs and the Joint Degrees of Bachelor of Music and Bachelor of Business Administration program who: …”

Page 409, 2021-2022 University Calendar under the heading 6.6.2 Major in General Musical Studies with a Minor in a Discipline/Other Than Music amend as follows:

“6.6.2 Major in General Musical Studies with a Minor in a Discipline Other Than Music

1. An additional 21 credit hours chosen from Music courses beyond the 1000 level, including: …
   b. A maximum of 4 credit hours from Music 2611-2614, 2619, 2620, and 263A/B, in addition to those listed under the Core Program
   c. A maximum of 5 credit hours from Music 2615, 2616, 2617, 265A/B, 3500, the former 3510, 3511-3518, and 3611-3613 in addition to those listed under the Core Program; …
4. Nine credit hours of open electives which may be chosen from courses in Music, the Minor subject, and/or any other disciplines. The usage limitations set in 6.6.2.1 may not be exceeded and no more than 3 credit hours in Music Education may be included.”

Page 418, 2021-2022 University Calendar under the heading 13.1 Applied Music Courses rename the following courses:

“2615 Jazz Ensemble” to “2615 Jazz Orchestra”

“265A/B Jazz Ensemble” to “265A/B Jazz Orchestra”

Page 418, 2021-2022 University Calendar under the heading 12 Music Courses Available to Students not Enrolled in a Program Offered by the School delete Clause 3 and replace as follows:

“3. Non-Music students may also audition to participate in the following ensemble courses:
Music 2612 Chamber Choir (1 credit hour per semester)

Music 2613 Chamber Orchestra (1 credit hour per semester)
Music 2615 Jazz Orchestra (1 credit hour per semester)
Music 2616 Opera Workshop (1 credit hour per semester)
Music 2617 Opera Workshop (2 credit hours per semester)
Music 2619 Wind Ensemble (1 credit hour per semester)
Music 263A/B Chamber Orchestra (1 credit hour per two semesters)
Music 265A/B Jazz Orchestra (1 credit hour per two semesters)"

Page 423, 2021-2022 University Calendar under the heading 13.4 Musicologies Courses delete and replace the following courses:

"1005 Thinking and Writing About Music I is designed to develop listening, critical thinking, research and writing skills through selected cross-cultural topics and themes exploring the relationship between music and society. This course has strong listening and writing components.

CR: MUS 2012, the former MUS 1002
PR: MUS 1120 or MUS 1106 or successful completion of theory placement test or admission to the Bachelor of Music degree program. The ability to read music is required."

"2005 History of Western Classical Music I examines Western classical music from Antiquity to c. 1750, with an emphasis on the study of musical genres and styles within their social contexts. This course has strong listening and writing components and continues to develop research skills.

CO: MUS 1107
CR: the former MUS 1003
PR: MUS 1006"

"2006 History of Western Classical Music II examines Western classical music from the Classical and Romantic Periods, with an emphasis on the study of musical genres and styles within their social contexts. This course has strong listening and writing components and continues to develop research skills.

CR: the former MUS 2002
PR: MUS 2005"

"3009 Music in the Modern World examines music in the Western world in the 20th and 21st centuries. Focused themes address a wide range of genres and styles with particular attention to music's interaction with the other arts and with society. This course has strong listening and writing components and continues to develop research skills.

CR: the former MUS 2003
PR: MUS 2006"

Insert the following new courses:

“MUS 3012 Music and Health provides an introduction to the use of music within the context of health and wellbeing in clinical and community settings, with a focus on Western applications. It includes an overview of music therapy, community music, health musicking, music in everyday life, music and healing, and edutainment for health promotion, as well as an introduction to different understandings of health and healthcare. This course has strong research and writing components.

PR: MUS 1006”

“MUS 3013 Music and Ecology explores the complex relationships between sound, music, humans/nonhumans, and the environment. Through a series of global case studies, we will examine how humans create, express, and sustain relationships with their surrounding environments through music. We will consider topics including the soundscapes of diverse environments; environmental activism; music and sustainability; music in response to natural and technological disasters; zoomusicology; Indigenous perspectives on music and the environment; and portrayals of nature music.

PR: Completion of at least 48 credit hours of university course work”

Delete and replace the following courses:

“MUS 3014 Musics of Asia and Oceania is a survey of musical practices in Asia and Oceania. Using a topical approach (e.g., gender expression, globalization, colonialism), students will be exposed to musical genres, theory, and aesthetics of peoples of East, Central, Southeast, and South Asia, and Indigenous Polynesia, Micronesia, and Melanesia. Listening is a strong component of this course.

PR: MUS 1120 with a minimum mark of 75% or MUS 1106 or equivalent and completion of at least 48 credit hours of university course work.”

“3015 Musics of Africa and the Americas is a survey of Indigenous music/dance practices on three continents. Emphasis is on sub-Saharan African musics and their manifestations in the Americas as an outcome of the Atlantic slave trade. Study of Indigenous North American music will center on non-ceremonial practices of the Northeast. Students will develop insight into local theories and aesthetics of musicking. Listening is a strong component of this course.

PR: MUS 1120 with a minimum mark of 75% or MUS 1106 or equivalent and completion of at least 48 credit hours of university course work.”

“MUS 3016 Music in Canada examines musical movements and cultures in Canada's history, from colonial times to the present. Students will be introduced to Indigenous and diasporic musics in classical, popular, and vernacular idioms. We

will examine musical practices in a variety of urban, rural, and commercial contexts. This course has strong listening, research, and writing components.

PR: MUS 1120 with a minimum mark of 75% or MUS 1106 or equivalent and completion of at least 48 credit hours of university course work"

66.4 Faculty of Humanities and Social Science

Department of ARCHAEOLOGY

Page 338, 2021-2022 University Calendar under the sub-heading 16.2 Archeology amend the following courses:

"**ARCH 2481 Ancient Civilizations of the Americas** is a survey course … contact with Europeans will also be investigated."

"**ARCH 2492 Forensic Archaeology** is an examination of procedures and techniques used by biological anthropologists ..."

"**ARCH 3500 Prehistory of Africa, Asia and Europe** examines the early stages … the Old World; the appearance of modern-type humans during the last ice age. PR: ARCH 1000 or the former 1030"

Delete the course "Arch 3505 Prehistory of Africa, Asia and Europe II."

Delete the course "ARCH 3515 Prehistory of Mesoamerica"

Delete the course "ARCH 3580 Bronze Age Archaeology of the Eastern Mediterranean"

Delete the course "ARCH 3590 Hunter Gatherer Studies"

Amend the following course:

"ARCH 3651 Archaeology of Exploration, Interaction and Settlement focuses on the history and archaeology of European expansion in the world since the 15th century and its impact on and interaction with Indigenous people. A diverse range of topics"

Amend the course ARCH 3680 to read as follows:

"ARCH 3680 Archaeology of Iceland employs an interdisciplinary archaeological approach to examine changes in Icelandic society from the Viking Age to the present. Through in-depth analyses of current research ..."

Delete the courses "ARCH 3710 Museums and Historic Sites – inactive course"

Delete the course “ARCH 3860 Vernacular Architecture- inactive course”

Amend the course “ARCH 4043 Biomolecular Archaeology” as follows:

“ARCH 4043 Biomolecular Archaeology is a rapidly developing ...address questions of diet, migration and population affinity in the past.
PR: one of ARCH 2430, ARCH 2450 or ARCH 2480”

Delete the course “ARCH 4151 Palaeoethnobotany” in its entirety.

Delete the course “ARCH 4171 Iroquoian Archaeology” in its entirety.

Page 287, 2021-2022 University Calendar under heading 15.2 .1 Department of Archaeology Description delete in its entirely and replace as follows:

15.2.1 Department of Archaeology Description

Archaeologists study past and present human cultures and behavior through their material traces: artifacts and features, plant and animal remains, human remains, sediments, sites, and their associated landscapes. In the Department of Archaeology, our students engage in practical training and experiential learning in classroom, laboratory, and field work settings that provide a comprehensive education and transferable skills. As one of the largest Archaeology departments in the country, we train our students to become effective researchers, critical thinkers, and active stewards of our shared archaeological heritage.

The Undergraduate Liaison assists all Archaeology majors and minors in planning their academic programs. For this purpose students should register with the Department at an early stage of their studies.

The following programs are available in the Department:

1. **Major in Archaeology**
2. **Minor in Archaeology**
3. **Joint Major in Archaeology**
4. **Honours in Archaeology**
5. **Joint Honours in Archaeology and Another Major Subject**
6. **Major in Archaeology (Co-operative) Education (ACE)**
7. **Honours in Archaeology (Co-operative) (ACE)**

Archaeology course descriptions are found at the end of the Faculty of Humanities and Social Sciences section under Course Descriptions, Archaeology and are designated by ARCH.”

Under the heading 15.2.3.General Degree delete the section entitled 15.2.3.1 First Courses in its entirety and replace with the following:

"15.2.3.1 Required Courses

The student majoring in Archaeology must meet the requirements listed under **Regulations for the General Degree of Bachelor of Arts**. Under these Regulations, a minimum of 36 credit hours in Archaeology is required. Students must successfully complete the **Core Courses** Archaeology 1000 (or the former 1030), 2480, 4182, and 4411. In addition, students are required to take 12 credit hours from **Field and Laboratory Courses**, and 12 credit hours from **Topical Courses**. Students are also encouraged to take Archaeology 1001 or 1005 (Critical Reading and Writing (CRW) Requirement), and Archaeology 2450 (Quantitative Reasoning (QR) Requirement) as part of their Bachelor of Arts Core Requirements.

Course Groupings for the Archaeology Program:

Core Courses: 1000 (or the former 1030), 2480, 4182, 4411.

Recommended Critical Reading and Writing (CRW) Courses: 1001, 1005.

Recommended Quantitative Reasoning (QR) Courses: 2450.

Field and Laboratory Courses: 2430, 2583 (or the former 3583), 3040, 3585, 3586, 3650, 4043, 4150, 4152, 4153.

Topical Courses: 2481, 2482, 2494, 3020, 3290, 3291, 3500, 3510, 3520, 3525 (or the former 3536), 3582 (or the former 3584), 3588, 3592, 3593, 3594, 3595, 3651, 3680, 3687, 3688, 3750, 3850, 4015, 4041, 4172, 4173, 4994."

Under the sub-heading 15.2.3.2 Minor amend as follows:

A minor in Archaeology … Archaeology 2492, 2493 (or the former Archaeology 2491) …"

Under sub-heading 15.2.3.3 Joint Major amend as follows:

As an alternative to a minor … shall be required from **Topical Courses** to fulfill Required Courses above."

Amend 15.2.4 Honours Degree as follows:

"1. Students … Archaeology Undergraduate Liaison and Honours Supervisor for assistance with planning their academic program."

Amend 15.2.5 Regulations for Joint Honours, Archaeology and Another Major Subject as follows:

"…

b. Archaeology 2430, 2480, and 3 other credit hours in Archaeology at the 2000 level;

…

d. Archaeology 4182, 4411, and 9 other Archaeology credit hours at the 4000 level, with a grade of "B" or better."

Amend 15.2.6 Major in Archaeology (Co-operative) as follows:

"… the **Regulations for the General Degree of Bachelor of Arts** and **Required Courses** above. In addition, the ACE Program requires two work term courses, 300W and 400W, as described in **Work Terms**."

Amend 15.2.6.2 Program of Study as follows:

"…

3. A student may wish to follow **Table 1 Suggested Course Progression for Major/Honours in Archaeology (Co-operative)** outlined below under the **Honours in Archaeology (Co-operative)**. A student is encouraged to meet with the Undergraduate Liaison early in the program in order to establish a course pattern that satisfies the regulations for this program.

…"

Amend the heading "15.2.7 Honours Major in Archaeology (Co-operative)" to "15.2.7 Honours in Archaeology (Co-operative)"

Amend 15.2.7.2 Program of Study as follows:

"…

5. A student may wish to follow **Table 1 Suggested Course Progression for Major/Honours in Archaeology (Co-operative)** outlined below. A student is encouraged to meet with the Undergraduate Liaison early in the program in order to establish a course pattern that satisfies the regulations for this program."

Delete and replace Table 4 Suggested Course Progression for Major/Honours in Archaeology (Co-operative) in its entirety and replace with the following:

"Table 1 Suggested Course Progression for Major/Honours in Archaeology (Co-operative)

Year	**Courses**

Year 1	• ARCH 1000 (or the former 1030) • ARCH 2480
Year 2	• 9 credit hours from **Topical Courses**. • Students applying for the ACE Program are required to take an Archaeology Field or Laboratory School after their second year of study. The courses associated with the field/lab school include ARCH 2583 or the former 3583 (Intersession), ARCH 3585 and ARCH 3586 (Summer Session), and these count towards the Field and Laboratory course requirements - 9 credit hours **Field and Laboratory Courses**.
Year 3	• 3 credit hours from Field and Laboratory Courses • Work Term 1
Year 4	• ARCH 4182 • ARCH 4411 • ARCH 4994 and ARCH 4995 (or the former 4996) - Honours Program only • Work Term 2 • 3 credit hours from **Topical Courses**

“

Department of Classics

Page 336, 2021-2022 University Calendar under heading 16. Course Descriptions inset the following new course:

“ CLAS 3902 Ancient Greek and Roman Mathematics introduces students to the way the ancient Greeks and Roman employed mathematics and refers, where possible, to preceding Egyptian, Mesopotamian, and Indian models. Students will learn about Greek and Roman number systems, numerals, time measurement, the Roman calendar, ancient surveying devices, and the use of the abacus. All sections of this course follow Quantitative Reasoning Course Guidelines available at www.mun.ca/hss/qr.
PR: there is no prerequisite for this course but students are strongly advised to have successfully completed at least one 1000-level or 2000-level Greek and Roman Studies course before registering in any 3000-level or higher Greek and Roman Studies course.”

Page 252, 2021-2022 University Calendar under heading 6.Degree Regulations-General and Honours Degrees sub-heading 6.1.2.4 Quantitative Reasoning (QR) Requirement amend as follows:

“…

1. Eligible Humanities and Social Sciences courses: Archaeology 2450, Classics 3902, Economics 1010 or the former 2010, 1020 or the former 2010, 2550; Geography 1050, 2102, 2195, 2302; History 2000; Linguistics 2210, 3850;

Philosophy 2030, 2031 or the former 2210, 2211; Political Science 3010, 3350; Sociology 3040, 3041.
…"

Department of History

Page 362 of 2021-2022 University Calendar under the heading 16.16 History insert the new course as follows:

"HIST 1111 Events that Changed the World: An Introduction to History presents history as a way of understanding how and why human communities and societies change. Through an exploration of a series of transformative events, students will learn about historical change, how it can be studied, and why events can be interpreted in various manners. Contents will vary depending on the area of specialization of the instructor."

Delete course "3940" in its entirety and replace with the following:

"3940 Urbanization and the Environment in Medieval Europe examines the phenomenon of urbanization in medieval Europe in connection with the natural environment. The course will discuss the specific features of medieval European urbanization while paying attention to the impact of urbanization on the environment, and on urban solutions to environmental problems."

Page 267, 2021-2022 University Calendar under heading 7.6.3 Regulations for the Diploma in Environmental Humanities in Table 1 Approved Courses for the Diploma in Environmental Humanities under the column "Other Approved Courses" insert " History 3940" into the list of courses as follows:

Page 362, 2021-2022 University Calendar under the heading 16.16 History add the following new course:

"History 4427 The Great War and the Making of the Middle East examines the downfall and partition of the Ottoman Empire during the First World War and how the modern Middle East was shaped in the war's aftermath. Topics will include the impact of the First World War on the Ottoman Empire's population, the perspective of Europeans, Turks, Arabs, and Jews on the empire's fall, the expansion of European empires into the region, and the rise of new states such as Syria and Iraq."

Department of Linguistics

Page 309, 2021-2022 University Calendar under the heading 15.11 Linguistics amend as follows:

" …

Students are trained in linguistic scholarship through active engagement in primary research, supported by unique and extensive in-house data archives, broad library holdings and state-of-the-art labs and analytical tools. …"

Under the sub-heading 15.11.3 Major in Linguistics, delete Clause 1 in its entirely and replace with the following:

"

1. Students majoring in Linguistics must complete 36 credit hours in Linguistics, which must include either Linguistics 1100 or 2800 (or the former 1155) and the 12 credit hours 1103, 1104, 3100, 3201 plus 21 credit hours in courses chosen from Linguistics 1100, 1105, 2060, 2120 (or the former 3155), 2210, 2212, 2220, 2300, 2800 (or the former 1155), 3000, 3104, 3105, 3150, 3210, 3302, 3310, 3311, 3500, 3850, 3950-3960, 4010-4091, 4100, 4110, 4120 (or the former 4150), 4151, 4203, 4204, 4210, the former 4400, 4420, 4421, 4500, 4700, 4750, 4751, 4752, 4753, 4754, 4900, 4901, 4956, 4950-4960. Of these 21 credit hours, 9 must be at the 4000 level."

Delete Table 1 Suggested Course Sequence for Major in Linguistics in its entirety and replace with the following:

"Table 1 Suggested Course Sequence for Major in Linguistics

Year	Required Courses	Recommended Courses	Optional Courses
1	Linguistics 1100 or 2800 (or the former 1155), and 1103, 1104	LING 2210	LING 1105 one other 2000-level LING course
2 - 3	LING 3100, 3201	two or three other 3000-level LING courses	
4	3000- and 4000- level LING courses		

With the exception of LING 1100 all other Linguistics courses are offered, other than language courses, during the Fall and Winter semesters only."

Under the sub-heading 15.11.4 Minor in Linguistics delete Clause 1 in its entirely and replace with the following:

1. "Students minoring in Linguistics must complete 24 credit hours in Linguistics, which must include: either Linguistics 1100 or 2800 (or the former 1155), and both of 1103 and 1104; any 6 credit hours from the following list: Linguistics 3000, 3100, 3104, 3201, 3500, 3850; and an additional 9 credit hours selected from: Linguistics 1101,1105, 2060, 2120 (or the former 3155), 2210, 2212, 2220, 2300, 2800 (or the former 1155), 3000, 3100, 3104, 3105, 3150, 3201, 3210, 3302, 3310, 3311, 3500, 3850, 3950-3960, 4010-4091, 4100, 4110, 4120 (or the former 4150), 4151, 4203, 4204, 4210, the former 4400, 4420, 4421, 4500, 4700, 4750, 4751, 4752, 4753, 4754, 4900, 4901, 4956, 4950-4960."

Delete Table 2 Suggested Course Sequence for Minor in Linguistics in its entirety and replace with the following:

"Table 2 Suggested Course Sequence for Minor in Linguistics

Year	Required Courses	Recommended Courses
1	Linguistics 1100 or 2800 (or the former 1155), and 1103, 1104	
2 - 3	two of LING 3000, 3100, 3104, 3201, 3850	one other 2000 or 3000-level LING course
4	two other LING courses	

With the exception of LING 1100 all other Linguistics courses are offered, other than language courses, during the Fall and Winter semesters only."

Under the sub-heading entitled 15.11.5 Honours in Linguistics delete Table 3 Suggested Course Sequence for Honours in Linguistics and replace with the following:

"Table 3 Suggested Course Sequence for Honours in Linguistics

Year	Required Courses	Recommended Courses
1	Linguistics 1100 or 2800 (or the former 1155), and 1103, 1104, 2210	one other 2000-level LING course
2	LING 3000, 3100, 3201, 3210, 3850	LING 2120 (or the former 3155) one other 2000 or 3000-level LING course
3	LING 3500, 4100 (or 4110), 4203 (or 4204) one of 4010-4091, 4120 (or the former 4150), 4210, 4500, 4700, 4956, 4950-4960	two other 3000 or 4000-level LING courses
4	LING 4999	one other 4000-level LING course

With the exception of LING 1100 all other Linguistics courses are offered, other than language courses, during the Fall and Winter semesters only."

Page 368, 2021-2022 University Calendar under heading 16.22 Linguistics amend course "Ling 1100 Introduction to Linguistics" as follows:

"1100 Introduction to Linguistics …
CR: the former LING 2100"

Delete the course "LING 1155 Linguistics for Language Learners and Teachers".

Amend the course "LING 2025 Introduction to Inuttitut I" as follows:

"2025 Introduction to Inuttitut I introduces students to Inuttitut. Students develop a working knowledge of basic vocabulary and grammar, …"

Amend the course “LING 2120 Introduction to Language Acquisition” as follows:

LING 2120 Introduction to Language Acquisition …
CR: the former LING 3155
PR: Language 2800 (or the former Language 1800) or LING 1100 or LING 2800 (or the former LING 1155), or the former LING 2100 or waiver in special cases by the Head of the Department”

Insert the following new course:

“LING 2800 Linguistics for Language Learners and Teachers (same as Language 2800) introduces and explains the concepts and terminology useful for formal language instruction. The primary focus is on understanding the structure of various levels of language (meaning, pronunciation, words, sentences, conversations, society and culture, and change), specifically as these structures relate to second language learning. The secondary focus is on research on learning and teaching and the natural acquisition of language.
CR: Language 2800, the former Language 1800, the former LING 1155
UL: not applicable towards the Bachelor of Arts Language Study Requirement”

Amend the following course:

“LING 3104 Phonetics ….
PR: Language 2800 (or the former Language 1800) or LING 1100 or LING 2800 (or the former LING 1155), or waiver in special cases by the Head of the Department”

Amend the following course:

“LING 3210 Introduction to Sociolinguistics ….
PR: Language 2800 (or the former Language 1800) or LING 1100 or LING 2800 (or the former LING 1155), or the former LING 2100 or LING 2210 or waiver in special cases by the Head of the Department”

Amend the following course:

“LING 3951 Language Endangerment and Revitalization … .
PR: Language 2800 (or the former Language 1800) or LING 1100 or LING 2800 (or the former LING 1155), or the former LING 2100 or waiver in special cases by the Head of the Department"

Department of Modern Languages, Literatures and Cultures

Page 361, 2021-2022 University Calendar under the heading 16.12 German amend the following courses:

"GERM 2010 Intermediate German I …
CO: If taken as part of an eligible field school, students should simultaneously enrol in the applicable International (INTL) corequisite"

"GERM 2011 Intermediate German II …
CO: If taken as part of an eligible field school, students should simultaneously enrol in the applicable International (INTL) corequisite."

"GERM 2511 Intermediate Composition and Conversation II: Field School
is a continuation of Intermediate Composition and Conversation I.
PR: GERM 1001 or 1003 and consent of the Head of the Department
CO: If taken as part of an eligible field school, students should simultaneously enroll in the applicable International (INTL) corequisite."

"GERM 3010 Advanced German I …
PR: GERM 2010 and 2011
CO: If taken as part of an eligible field school, students should simultaneously enrol in the applicable International (INTL) corequisite."

"GERM 3011 Advanced German II …
PR: GERM 3010 or consent of the Head of the Department
CO: If taken as part of an eligible field school, students should simultaneously enrol in the applicable International (INTL) corequisite."

"GERM 4010 Advanced Stylistics I …
PR: GERM 3011 or the consent of the Head of Department
CO: If taken as part of an eligible field school, students should simultaneously enrol in the applicable International (INTL) corequisite."

"GERM 4011 Advanced Stylistics II …
PR: GERM 4010 or consent of the Head of the Department.
CO: If taken as part of an eligible field school, students should simultaneously enrol in the applicable International (INTL) corequisite."

Department of Political Science

Page 378, 2021-2022 University Calendar under the heading 16.25.2 Law and Society delete the course "LWSO 3012 Indigenous Peoples: Concepts of Land, the Law and the Constitution" in its entirety and replace with the following:

"LWSO 3830 Indigenous Peoples: Concepts of Land, the Law and the Constitution (same as Political Science 3830) traces the historical development of Indigenous land and resource rights; colonial and Canadian law; and the Constitution of Canada as it relates to the First Nations, Inuit and Metis people of

Canada. The developing concept of Indigenous law is presented within the context of the treaty process, Indian Act, contemporary land claims, the Canadian Constitution, and federal/provincial relations.
CR: Political Science 3830, the former Law and Society 3012"

Page 376, 2021-2022 University Calendar delete the course "POSC 3830 Indigenous Governance in Canada" in its entirety and replace with the following:

"**POSC 3830: Indigenous Peoples: Concepts of Land, the Law and the Constitution** (same as Law and Society 3830) traces the historical development of Indigenous land and resource rights; colonial and Canadian law; and the Constitution of Canada as it relates to the First Nations, Inuit and Metis people of Canada. The developing concept of Indigenous law is presented within the context of the treaty process, Indian Act, contemporary land claims, the Canadian Constitution, and federal/provincial relations.
CR: Law and Society 3830, the former Law and Society 3012"

Page 330, 2021-2022 University Calendar under the sub-heading 15.15.11.5 Course List delete in its entirety "Table 1 Core Faculty of Humanities and Social Sciences Courses Approved for the Major or Minor in Law and Society" and replace with the following:

"Table 1 Core Faculty of Humanities and Social Sciences Courses Approved for the Major or Minor in Law and Society

1000 and 2000 Level Courses	**3000 Level Courses**	**4000 Level Courses**
Criminology 2400 or the former Police Studies 1000, 2000, or 2200 Linguistics 2220 LWSO 1000, 2000 Philosophy 2370 or the former 2400 Political Science 1000, 2800	Criminology 3000 or the former Police Studies 3000 LWSO 3010-3019, 3200, 3300, 3400, 3830 Political Science 3210, 3620, 3800, 3820, 3830 Sociology 3306, 3395	LWSO 4000,4900, 4901-4909 Political Science 4200 Sociology 4095, 4099, 4212

"

Page 278, under the heading 8.9 Certificate in Indigenous Studies delete "Table 1 Courses for the Certificate in Indigenous Studies" in its entirety and replace with the following:

"Table 1 Courses for the Certificate in Indigenous Studies

1000-level and 2000-level Courses	3000-level and 4000-level Courses
• Anthropology 2414 • Archaeology 1005 or History 1005 • Archaeology 2481, 2482 • English 2160 • History 2800 • Linguistics 2022, 2025, 2026, 2060	• Anthropology 3070, 3240 • Archaeology 3290, 3291, 3510, 3588, 3590 • Archaeology/History 3520, 3525 • Gender Studies 3015 • History 3765, 4252 • Law and Society 3830, 3014 • Linguistics 3951 • Political Science 3830 • Sociology 4205

“

Page 378, 2021-2022 University Calendar under sub-heading 16.25.2 Law and Society delete the following courses:

“LWSO 3300 Understanding Human Rights”
“POSC 4215 Human Rights and International Politics”
Insert the following new courses:

“LWSO 3215: International Human Rights (same as Political Science 3215) introduces students to international human rights, in theory and practice. Course topics include: history; philosophy; and international and Canadian structures and provisions. The course includes an examination of selected areas of international human rights, such as children’s rights, women’s rights, and humanitarian intervention. It explores current and future applications of human rights. All sections of this course follow International Studies guidelines available at www.mun.ca/hss/IS.
CR: Political Science 3215, the former Law and Society 3300, the former Political Science 4215”

“POSC 3215: International Human Rights (same as Law and Society 3215) introduces students to international human rights, in theory and practice. Course topics include: history; philosophy; and international and Canadian structures and provisions. The course includes an examination of selected areas of international human rights, such as children’s rights, women’s rights, and humanitarian intervention. It explores current and future applications of human rights. All sections of this course follow International Studies guidelines available at www.mun.ca/hss/IS.
CR: Law and Society 3215, the former Law and Society 3300, the former Political Science 4215”

Page 303, under heading 15.15.11.5 Course List delete “Table 1 Core Faculty of Humanities and Social Sciences Courses Approved for the Major or Minor in Law and Society” and “Table 2 Other Faculty of Humanities and Social Sciences Courses Approved for the Major or Minor in Law and Society” in its entirety and

replace with the following:

"Table 1 Core Faculty of Humanities and Social Sciences Courses Approved for the Major or Minor in Law and Society

1000 and 2000 Level Courses	3000 Level Courses	4000 Level Courses
Criminology 2400 or the former Police Studies 1000, 2000, or 2200 Linguistics 2220 LWSO 1000, 2000 Philosophy 2370 or the former 2400 Political Science 1000, 2800	Criminology 3000 or the former Police Studies 3000 LWSO 3010-3019, 3215, 3400 LWSO 3200 Political Science 3210, 3215, 3620, 3800, 3820, 3830 Sociology 3306, 3395	LWSO 4000, 4901-4909 LWSO 4900 Political Science 4200 Sociology 4095, 4099, 4212

"

Page 328, 2021-2022 University Calendar under heading 15.15.7 Honours and Major in Political Science (Co-operative) amend as follows:

… The PSCE provides an opportunity for students to obtain public policy and other relevant full-time employment experience in fields related to Political Science. Students will apply their academic knowledge to practical situations as they develop their research, analysis and writing skills, as well as their career interests. A commitment to ethical and professional conduct is expected of all students.
…"

Delete 15.15.7.1 Eligibility for Admission in its entirety and replace with the following:

"15.15.7.1 Eligibility for Admission

1. Admission to the Political Science Co-operative Education Program is limited and selective.
2. A student should note that it is possible to apply to enter the PSCE only in the Fall semester of each academic year. PSCE application forms, and the application deadline, are available at the Department of Political Science website.
3. The primary criterion used in reaching decisions on applications is overall academic achievement. Applicants may be asked to attend an interview.
4. To be eligible for admission to PSCE, an applicant must have completed a minimum of 42 credit hours, including POSC 1000 and 2800, by the end of that semester, have an overall average of at least 65%, and have a minimum average of 70% in Political Science courses. Applicants transferring from another institution must normally have completed at least one semester at Memorial University of Newfoundland and Labrador before applying to the program."

Delete 15.15.7.2 Program of Study in its entirety and replace with the following:

"15.15.7.2 Program of Study

1. In addition to the requirements below students must fulfill all requirements for either an Honours or a Major in Political Science.
2. Students' status in the program is assessed at the end of each semester. To be eligible to continue, students must maintain full-time student status (9 or more credits in a semester) and maintain a cumulative average of at least 65% and an average of at least 70% in Political Science courses. A student who fails a required course, fails to maintain the required cumulative average, or does not maintain full-time status will not be promoted to the next semester and will be required to withdraw from the program.
3. Students must successfully complete three work terms, at least one of which must occur during a Fall or Winter semester. No more than two of the three work terms may be completed consecutively.
4. Work terms normally begin after the student has completed four academic terms. The third work term must be completed before the final academic term.
5. Students who successfully complete all three work terms will be awarded 3 credit hours for completion of POSC460W. These credit hours may be used as an elective per Calendar section 6.1.6. (Degree Regulations - General and Honours Degrees - Electives).

Course patterns may vary. Students are encouraged to meet with the undergraduate coordinator early in their program in order to establish a course pattern that meets the requirements as set out in these regulations."

Delete 15.15.7.3 Preparation for Work Term Placements in its entirety and replace with the following:

"15.15.7.3 Work Term Placements

The PSCE is coordinated by the Academic Staff Members in Co-operative Education in consultation with a designated Department faculty member.

1. A student is ultimately responsible for securing work term placements. ASMs-CE provide support for the job search and inform students of potential opportunities.
2. A student who applies for admission to the PSCE gives permission to the University to provide a copy of the student's resume and university transcript to potential employers.
3. A student who is enrolled in a Co-operative Education program may independently obtain a work term placement, in consultation with the ASMs-CE. Such employment positions must satisfy the criteria for work terms, be confirmed in writing by the employer, and be approved by the ASM-CE before the first day of the work term according to the Co-operative Education website.
4. Co-operative students are required to complete professional development seminars offered by the ASMs-CE.

5. Work terms are normally 12-16 weeks in duration, full-time and paid. Remuneration for work placements is determined by employers based on their internal wage structures. The start and end dates for each work term are shown on the Co-operative Education website."

Delete the section entitled "15.15.7.4 Delivery of Work Term Placements" in its entirety.

Delete the section entitled 15.15.7.5 Registration and Evaluation of Performance in its entirety and replace with the following:

"15.15.7.4 Registration and Evaluation of Performance

1. In Work Terms I, II, and III, a student must register for POSC 260W, 360W, and 460W, respectively.
2. The Work Term evaluations shall consist of two components:
    a. On-the-job Student Performance: this will be assessed by the ASM-CE using information gathered during the Work Term and input from the employer towards the end of the Work Term. Evaluation of the job performance will result in one of the following classifications: PASS WITH DISTINCTION, PASS, FAIL.
    b. Work Term Assignment(s): One or more work term assignment(s) as outlined in the course syllabus. Evaluation of the Work Term assignment(s) will result in one of the following classifications: PASS WITH DISTINCTION, PASS, FAIL.
3. Evaluation of the on-the-job performance and work term assignments are recorded separately on the student's transcript for each work term.
4. Overall evaluation of the work term will result in one of the following final grades being awarded for POSC 260W, 360W or 460W as applicable:
    a. *Pass with Distinction*: Indicates that the student received a grade of PASS WITH DISTINCTION on both the on-the-job performance and the work term assignments.
    b. *Pass*: Indicates that the student received a grade of PASS on both the on-the-job performance and the work term assignments or a grade of PASS on one component and a grade of PASS WITH DISTINCTION on the other component.
    c. *Fail*: Indicates a grade of FAIL in one or both of the evaluation components.
5. To be eligible for promotion from the work term and continuation in the PSCE, a student must not be awarded a FAIL. Students should also refer to the ***UNIVERSITY REGULATIONS*** **- General Academic Regulations (Undergraduate)**.
6. A student will not be eligible to continue in the program if the student withdraws from a Work Term subsequent to a job placement without acceptable cause and/or without prior approval from both the ASM-CE and the Head of the Department; fails to honour an agreement to work with an

employer; and/or conducts themselves in such a manner as to cause their discharge from the job."

Page 378, under heading 16.25.1 Political Science Work Terms delete the course 260W Work Term 1 and replace with the following:

"260W Work Term 1
For most students this represents their first work experience in a professional environment. They are expected to learn, develop and practice high standards of behaviour in the workplace.

CH: 0
OR: Professional development seminars, delivered by Co-operative Education, are presented in the previous semester to prepare the student for participation in the subsequent work terms. Topics may include, among others: résumé preparation; interview training; work term evaluation; preparation of reflective essays; career planning employment seeking skills; self-employment; ethics and professional concepts; and behavioural requirements in the workplace.

PR: Enrollment in the **Political Science Co-operative Education Program (PSCE)**; 18 POSC credit hours; a minimum overall average of 65% and a minimum average of 70% in POSC courses; and permission of the designated faculty member."

Delete the course 360W Work Term 2 and replace with the following:

"360W Work Term 2
Building on their first work term placement, students will further develop their knowledge and work-related skills in a position that entails increased responsibility and challenge. Students are expected to demonstrate an ability to deal with increasingly complex work-related concepts and problems.

CH: 0
PR: Enrollment in the **Political Science Co-operative Education Program (PSCE)**, 27 POSC credit hours; POSC 260W; a minimum overall average of 65% and a minimum average of 70% in POSC courses; and permission of the designated faculty member."

Delete the course 460W Work Term 3 and replace with the following:

"460W Work Term 3
Building on their previous work term placements and Political Science course knowledge, students will contribute in a positive manner to the problem-solving and management processes practiced in the work environment. Students should become better acquainted with their discipline of study; should observe and appreciate the attitudes, responsibilities and ethics normally expected of

professionals; and should exercise greater independence and responsibility in their assigned work functions.

CH: 3
CR: POSC 4600
PR: enrollment in the **Political Science Co-operative Education Program (PSCE)**; a minimum third-year standing and 33 POSC credit hours; POSC 360W; a minimum overall average of 65% and a minimum average of 70% in POSC courses; and permission of the designated faculty member."

Department of Religious Studies

Page 379, 2021-2022 University Calendar under the heading 16.26 Religious Studies insert the new course as follows:

"3520 Religion From Left Field examines modern, left-leaning (Marxist, anarchist, socialist) understandings, adaptations, and critiques of Jewish and Christian thought. We consider religion not simply as an object of political analysis and critique, but as a contributing factor to the emergence in Europe of an influential body of post- Enlightenment emancipatory thought and political theology, as found in currents of Western Marxism."

Department of Sociology

Page 335, 2021-2022 University Calendar under the heading 15.18.9 Major in Criminology delete in its entirety and replace with the following:

"**15.18.9.4 Regulations for the Major in Criminology**

1. A Major in Criminology consists of all of the requirements of the Bachelor of Arts program, including a minimum of 42 credit hours in courses as follows, which must include a minimum of 27 credit hours in Criminology courses:

    a. 21 credit hours in:
        - Criminology 1001 or Sociology 1001 (or the former Sociology 2300 or Police Studies 2300);
        - Criminology 2400 (or the former Police Studies 1000 or the former Police Studies 2000);
        - Criminology 2200 (or the former Police Studies 2200)
        - Criminology 3000 (or the former Police Studies 3000)
        - Criminology 3100 (or the former Police Studies 3100)
        - Criminology 3500 (or the former Police Studies 3500)
        - Criminology 3395 (or the former Police Studies 3395) or Sociology 3395;

b. 6 credit hours in two of Criminology 4000 (or the former Police Studies 4000), Criminology 4001 (or the former Police Studies 4001), Criminology 4080 or Sociology 4080, Criminology 4099 (or the former Police Studies 4099) or Sociology 4099, or Criminology 4212 (or the former Police Studies 4212) or Sociology 4212;
c. 3 credit hours in one of Law and Society 1000 or Law and Society 2000, Sociology 2100, or an additional 3 credit hours in Criminology at any level (excluding credit hours used to fulfill other requirements listed here);
d. 3 credit hours in one of Political Science 3010, Statistics 2500 Sociology 3040, or Sociology 3041;
e. 3 credit hours in one of Law and Society 3400; Criminology 3290 or Sociology 3290; or Criminology 3306 (or the former Police Studies 3306) or Sociology 3306;
f. 3 credit hours in one of Archaeology 2492 or Psychology 2150; and
g. 3 credit hours in one of Anthropology 2414, History 2800, Law and Society 3012, Sociology 3180, or Sociology 4205.

2. A student is expected to enroll in the Criminology section of any applicable crosslisted courses.

3. As per the Degree Regulations, General and Honours Degrees, The Major Program, Major Program of Study, students completing a Major in Criminology are ineligible for an interdisciplinary Minor in any program. Credit hours in a course cannot be used to fulfill the requirements of two Major programs, of both a Major and a Minor program, or the program requirements of all three of a Major, diploma and certificate.

Students may wish to follow the pattern for the Major in Criminology listed under Table 1 Suggested Course Pattern for a Major in Criminology (CRIM)

Table 1 Suggested Courses for a Major in Criminology

Level	**Courses**	**Required or Elective Courses**
1000 CRIM/ SOCI	SOCI 1000 CRIM/SOCI 1001 (or the former Police Studies/Sociology 2300)	All courses required
Other 1000 and 2000,	Law and Society 1000 Law and Society 2000 Sociology 2100	3 credit hours required

or any CRIM	3 credit hours in Criminology at any level (excluding otherwise-noted)	
2000 Forensics	Archaeology 2492 Psychology 2150	3 credit hours required
2000 and 3000 CRIM	Criminology 2400 (or the former Police Studies 1000 or the former Police Studies 2000) Criminology 2200 (or the former Police Studies 2200) Criminology 3000 (or the former Police Studies 3000) Criminology 3100 (or the former Police Studies 3100) Criminology 3500 (or the former Police Studies 3500) Criminology 3395 (or the former Police Studies 3395) or Sociology 3395	All courses required
2000 and 3000 Methods	Political Science 3010 Statistics 2500 Sociology 3040 Sociology 3041	3 credit hours required
Other 3000	Law and Society 3400 Criminology 3290 or Sociology 3290 Criminology 3306 (or the former Police Studies 3306) or Sociology 3306	3 credit hours required
2000 to 4000 Indigenous/ Ethnicity	Anthropology 2414 History 2800 Law and Society 3012 Sociology 3180 Sociology 4205	3 credit hours required
4000	Criminology 4000 (or the former Police Studies 4000) Criminology 4001 (or the former Police Studies 4001) Criminology 4080 or Sociology 4080 Criminology 4099 (or the former Police Studies 4099) or Sociology 4099 Criminology 4212 (or the former Police Studies 4212) or Sociology 4212	6 credit hours required

“

Page 336 , 2021-2022 University Calendar under heading 8 Certificate Programs edit the following courses:

“SOCI 3306 Young People and the Youth Justice System …

CR: Criminology 3306, the former Police Studies 3306

PR: Criminology 1001 (or the former Police Studies 2300 or the former SOCI 2300) or SOCI 1001, Criminology 2400 (or the former ~~Po~~lice Studies 1000 or the former Police Studies 2000), and an additional 3 credit hours in Criminology or Sociology courses at the 2000 level”

“SOCI 3395 Criminal Justice …

CR: Criminology 3395, the former Police Studies 3395

PR: Criminology 1001 or SOCI 1001 (or the former Police Studies 2300 or the former Sociology 2300) and Criminology 3000 (or the former Police Studies 3000)”

“SOCI 4212 Sociology of Policing …

CR: Criminology 4212, the former Police Studies 4212

PR: SOCI 1000 (or the former SOCI 2000), Criminology 2400 (or the former Police Studies 1000 or the former Police Studies 2000) and 6 credit hours at the 3000 level in Criminology or Sociology courses”

Page 386, 2021-2022 University Calendar under the sub-heading 16.28.1 Criminology amend the following courses:

“CRIM 3000 Crime Victims and the Justice System

(same as the former Police Studies 3000) will provide an opportunity to explore contemporary victim issues, …

PR: CRIM 1001 or Sociology 1001, or the former Police Studies 2300 or the former Sociology 2300, CRIM 2400 or the former Police Studies 1000 or the former Police Studies 2000”

“CRIM 3306 Young People and the Youth Justice System

(same as Sociology 3306, and the former Police Studies 3306) provides an introduction to the youth justice system. …

CR: Sociology 3306, the former Police Studies 3306

PR: CRIM 1001 (or the former Police Studies 2300 or the former Sociology 2300) or Sociology 1001, CRIM 2400 (or the former Police Studies 1000 or the former Police Studies 2000), and an additional 3 credit hours in CRIM or Sociology courses at the 2000 level”

“CRIM 3395 Criminal Justice

(same as Sociology 3395, the former Police Studies 3395) provides an introduction to the criminological …

CR: Sociology 3395, or the former Police Studies 3395

PR: CRIM 1001 or SOCI 1001 (or the former PLST 2300 or the former Sociology 2300), and CRIM 3000 (or the former Police Studies 3000)"

"SOCI 4212 Sociology of Policing
(same as Criminology 4212, the former Police Studies 4212) is a seminar course exploring the role policing plays in society, the social, economic, and political factors that shape policing, ….

CR: Criminology 4212, the former Police Studies 4212
PR: SOCI 1000 (or the former SOCI 2000), Criminology 2400 (or the former Police Studies 1000 or the former Police Studies 2000) and 6 credit hours at the 3000 level in Criminology or Sociology courses"

Diploma in Police Studies

Page 270, 2021-2022 University Calendar under heading 7.9 Diploma in Police Studies delete the program in its entirely.

Page 336, 2021-2022 Unviersity Calendar, under sub-heading 15.18.12 Diploma in Police Studies, delte the first paragraph and replace with the following:

15.18.12 Diploma in Police Studies

The Department of Sociology administers the **Diploma in Police Studies** for students who were approved for and began this program prior to 2022 and are continuing in or returning to complete this program. Credit hours in Sociology and Criminology may be eligible to jointly fulfill requirements of a degree and a diploma.

Page 384, 2021-2022 University Calendar under the heading 16.28 Sociology amend the course Sociology 2208 Homelessness and Social Control as follows:

"Sociology 2208 Homelessness and Social Control (same as Criminology 2208) examines ….
CR: Criminology 2208"

Page 386, under the heading 16.28.1 Criminology insert the following course:

Criminology 2208 Homelessness and Social Control (same as Sociology 2208) examines and questions the dominant political-economic logics and social control strategies used to manage homelessness. It explores common strategies that attempt to supervise, regulate, and integrate impoverished populations into civil society and the market. This course also proposes promising future directions for homeless governance in Canada and Newfoundland and Labrador.
CR: Sociology 2208

Page 382, 2021-2022 University Calendar under the heading 16.28 Sociology delete and replace the following couses:

"SOCI 3040 Quantitative Research Methods will familiarize students with the procedures for understanding and conducting quantitative social science research. It will introduce students to the quantitative research process, hypothesis development and testing, and the application of appropriate tools for analyzing quantitative data. All sections of this course follow QR guidelines available at www.mun.ca/arts/qr
PR: SOCI 1000 or the former 2000"

"SOCI 3041 Qualitative Research Methods introduces qualitative methodological approaches in sociology. The course covers qualitative research design, inductive reasoning, and qualitative data analyses such as/including qualitative interviews and ethnography and other related methods of inquiry. Students will gain "hands on" experience, gain knowledge of the purposes and strengths of qualitative research, and learn about ethical considerations when conducting research with human participants.
PR: SOCI 1000 or the former 2000"

Page 253, 2021-2022 University Calendar under the heading 6.1.2.4 Quantitative Reasoning (QR) Requirement amend as follows:

"**…**

1. Eligible Humanities and Social Sciences courses: Archaeology 2450, Economics 1010 or the former 2010, 1020 or the former 2010, 2550; Geography 1050, 2102, 2195, 2302;History 2000; Linguistics 2210, 3850; Philosophy 2030, 2031 ortheformer2210,2211;Political science 3010, 3350; Sociology 3040…"

Page 244, 2021-2022 Calendar, under the heading Faculty of Humanities and Social Sciences, sub-heading 7 Diploma Regulations, in Clauses "7.1 General Regulations for Diploma Programs" through to Clause "15.18.11 Certificate in Criminology", delete all instances of "Program Coordinator" and replace with "Program Director".

66.5 School of Human Kinetics and Recreation

Page 230, 2021-2022 University Calendar in section 4.1.4 Recreation Degree delete and replace the first paragraph as follows:

"A Recreation degree is designed to provide students with the opportunity to develop professional competencies in recreation and leisure service management. The optional therapeutic recreation concentration provides professional

preparation for the practice of therapeutic recreation. The Bachelor of Recreation degree is comprised of 120 credit hours and can be taken on a full-time or part-time basis."

Page 235, 2021-2022 University Calendar under the heading 6.4 Bachelor of Recreation amend the second bullet as follows:

"…

- An Optional Therapeutic Recreation Concentration is available in this program…."

Delete Table 5 Bachelor of Recreation in its entirety and replace with the following:

"Table 5 Bachelor of Recreation

Required Non-HKR Courses (24 Credit Hours)	**Required HKR Courses (54 Credit Hours)**	**Complementary Study Courses (42 Credit Hours)**
3 credit hours in a **Critical Reading and Writing (CRW)** designated course English 1090 or 1000 Geography 1050 Psychology 1000, 1001 Sociology 1000 3 credit hours in Sociology at the 2000 level Statistics 2550 or equivalent	HKR 2000 HKR 2100 HKR 2300 HKR 2500 HKR 2505 HKR 2515 HKR 2545 HKR 2585 HKR 3100 HKR 3340 HKR 3400 HKR 3515 HKR 3535 HKR 3555 HKR 3575 or 3785 HKR 4485 HKR 4575 or 4685 HKR 4600	**42 credit hours of elective courses of which 30 credit hours must be at the 2000 level or above:** 15-18 credit hours in HKR elective courses at the 2000 level or above 24-27 non-HKR elective courses. **Optional Minor** In completing the minor students must follow the minor program regulations listed under the appropriate Faculty or School. **Optional Therapeutic Recreation Concentration** Students interested in pursuing a therapeutic recreation concentration shall normally complete the following among the 42 elective credit hours listed above: HKR 2311, or 2310 and 2320 HKR 3485 or 3685 Psychology 3640

"

66.6 Faculty of Science

Page 513, 2021-2022 University Calendar under heading 12.2 Biology amend the following courses:

"2010 Biology of Plants …

LH: 3
PR: Science 1807 and Science 1808; BIOL 1001 and 1002”

“2060 Principles of Cell Biology …
CR: the former BIOL 3060
LH: 3
PR: Science 1807 and Science 1808; BIOL 2250 OR Biochemistry 2200”

“2250 Principles of Genetics …
CR: Biochemistry 2100, Biochemistry 2200, the former BIOL 3250
LH: 3
PR: Science 1807 and Science 1808; BIOL 1001 and 1002;
Chemistry 1050(or 1200)”

“2900 Principles of Evolution and Systematics …
CR: the former BIOL 3900
LH: 3
PR: Science 1807 and Science 1808; BIOL 2250”

“3050 Introduction to Microbiology
LH: 3
PR: Science 1807 and Science 1808; BIOL 1001 and 1002”

“3295 Population and Evolutionary Ecology …
is an introduction to the theory and principles of evolutionary ecology and population dynamics.
CR: the former BIOL 4290
LH: 3
PR: Science 1807 and Science 1808; BIOL 2600, BIOL 2900”

“3610 Boreal Ecology …
CR: Environmental Science 3131
LC: either three hours of lecture and three hours of laboratory per week or a two week field course that embodies equivalent instructional time
LH: either three hours of lecture and three hours of laboratory per week or a two week field course that embodies equivalent instructional time
PR: BIOL 2600 and 27 credit hours in Biology”

“3712 Benthic Biology …
CR: the former Biology 3630
LC: either three hours of lecture and three hours of laboratory per week or a two-week field course that embodies equivalent instructional time
LH: either three hours of lecture and three hours of laboratory per week or a two-week field course that embodies equivalent instructional time
PR: Science 1807 and Science 1808; Biology 2122 and 2600”

“4005 Biology of Islands …
OR: 3 hours of seminar/discussion group each week
PR: BIOL 2600 and 2900”

“4010 Virology …
LH: Three hours of laboratory/seminar/discussion per week
PR: Science 1807 and Science 1808; BIOL 3050”

“4200 Immunology …
CR: Biochemistry 4105, Pharmacy 3006, and the former Pharmacy 4105
PR: Biochemistry 2201 or the former 2101”

“4360 Community and Ecosystem Ecology …
OR: a seminar/discussion group each week
PR: Science 1807 and Science 1808; BIOL 2600 and 2900 and one of BIOL 2010, 2122 or 2210”

“4405 Landscape Ecology …
PR: BIOL 2600 and 18 credit hours in Biology”

“4601 Functional Biology of Fish …
CR: Ocean Sciences 4601
PR: BIOL 2060, 2210; BIOL 3401 or 3640 is recommended”

“4651 Conservation Biology II: Conservation in Practice …
PR: BIOL 4650”

Page 531, 2021-2022 University Calendar. under heading to 12.9 Ocean Sciences, amend courses as follows:

“4601 Functional Biology of Fish (same as Biology 4601) …
CR: Biology 4601
PR: Biology 2060, 2210; Biology 3401 or 3640 is recommended”

Page 510, 2021-2022 University Calendar under heading 12.1 Biochemistry amend the courses as follows:

“2200 Introduction to Molecular Biology and Genetics …
CO: Chemistry 2400
CR: BIOC 2100, Biology 2250
PR: Chemistry 1001 or 1051”

“2201 Introduction to Biochemistry …
CO: Physics 1021 or 1051
CR: the former BIOC 2101, Pharmacy 2004, or the former Pharmacy 3110

PR: Chemistry 1001 or 1051, Chemistry 2400 and Physics 1020 or 1050”

“4210 Biochemical Research Techniques I …
AR: attendance is required
PR: BIOC 3105”

“4240 Gene-Nutrient Interactions and Personalized Nutrition …
PR: one of BIOC 2100, 2200 or Biology 2250; BIOC 3106 or BIOC 3206; and one of BIOC 3203 or the former BIOC 3200”

Page 524, 2021-2022 University Calendar under heading section 12.5.2 Second Year (Earth Sciences) delete and replace the following courses:

“3170 Geophysics for Natural Resource Exploration is an introduction to geophysical methods used to investigate the subsurface of the Earth, with particular application to: exploration and development of mineral, hydrocarbon, and geothermal resources; carbon sequestration; and burial of nuclear waste. The laboratory component involves hands-on exercises collecting data (generally indoors), analyzing, and interpreting geophysical data using modern software. Pertinent seismic, gravity, magnetic, electric and electromagnetic techniques will be covered.
LH:3
PR: Physics 1051 (or 1021); Mathematics 1001; Mathematics 2000 or Statistics 2550.”

“3172 Environmental and Geotechnical Geophysics is an introduction to geophysical methods used to investigate the shallow Earth, with particular application to environmental issues, including groundwater distribution and contaminant tracking, and delineation of buried infrastructure, artifacts, and waste materials. The laboratory component involves outdoor surveys, where students work in small teams using geophysical equipment, followed by analysis of collected data using modern software.
Pertinent techniques will be covered, with an emphasis on electrical and electromagnetic methods.
AR: attendance is required in the laboratory component of this course. Failure to attend may result in a failing grade or deregistration from the course.
CO: EASC 2905 or permission of the instructor for students not following a Major in Earth Sciences.
LH: 3
PR: Physics 1051 (or 1021); Mathematics 1001; Mathematics 2000 or Statistics 2550; EASC 2905 or permission of the instructor for students not following a Major in Earth Sciences; Science 1807 and Science 1808.”

Department of Computer Science

Page 488, 2021-2022 University Calendar under heading 11.4.9 Co-Operative Internship in Computer Science delete the second paragraph and replace with the following:
"The Co-operative Internship in Computer Science (CICS) provides an opportunity for qualified students to obtain rewarding co-operative internships that help them develop practical skills in a real work setting before graduation. The CICS is available to Computer Science Majors who will typically apply between their third and fourth year of studies. Admission to the CICS is limited and competitive."

Under sub-heading 11.4.9.1 Admission Requirements amend as follows:

"In order to be considered for admission to the CICS, an applicant:

1. must be a declared Computer Science Major;
2. must be registered as a full-time student at the time of application;
3. must have successfully completed Computer Science 1001, 1002, 1003, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008 and 6 credit hours at the 3000 level or beyond;
4. must have at least 15 credit hours remaining after the co-operative internship in order to satisfy degree requirements, 3 credit hours of which must be in Computer Science; and
5. is expected to return to University as a full-time student after the co-operative internship.

In addition to the above, admission is also subject to academic performance."

Delete the section 11.4.9.2 Internship Duration in its entirely.

Delete the section 11.4.9.3 Internship Guidelines in its entirety and replace with the following:

"11.4.9.2 Co-operative Internship Guidelines

1. General management of the CICS is the responsibility of Academic Staff Member(s) in Co-operative Education (ASM-CE). ASMs-CE are responsible for developing employment opportunities, organizing competitions for co-operative internship employment, co-operative education data management, monitoring students during co-operative internships, and evaluating co-operative internships.
2. Subject to the availability of appropriate co-operative internship employment, a student may complete a co-operative internship of 8, 12 or 16 consecutive months with a single employer. Co-operative internships are full-time, paid, and involve work that is relevant to the discipline of computer science.
3. The co-operative internship start and end dates are listed at www.mun.ca/coop/

4. Students are ultimately responsible for securing their co-operative internship. ASMs-CE provide support for the job search and inform students of potential opportunities.
5. Students who are admitted to the co-operative internship program give permission to ASMs-CE to supply prospective employers with copies of their resume and transcript.
6. A student who has been admitted to the CICS may independently obtain a co-operative internship in consultation with an ASM-CE. Such employment positions must satisfy the criteria for co-operative internships, be confirmed in writing by the employer and approved by an ASM-CE before the first day of the work term.
7. Students must register for the course Computer Science 3700 every semester during their co-operative internship. Computer Science 3700 is considered a full-time course load.
8. Students are not permitted to drop their co-operative internship without prior approval from an ASM-CE and the Head of the Department of Computer Science. Students who drop a co-operative internship without permission, who fail to honour an agreement to work with an employer, or who conduct themselves in such a manner as to cause their discharge from the co-operative internship, will normally be awarded a fail grade for the co-operative internship period and may not be permitted to reapply to the CICS.

Note:

Students should also refer to the ***UNIVERSITY REGULATIONS - General Academic Regulations (Undergraduate)****.*

Page 489, 11.4.9.4 Registration, Assessment of Performance, and Assignment of Grades in its entirety.

Page 521, 2021-2022 University Calendar under the heading 12.4.3 Third Year Courses, delete the course and replace as follows:

"3700 Industrial Experience is open only to students who have been accepted into the Co-operative Internship in Computer Science. This course provides an opportunity for qualified students to obtain rewarding job experience of 8, 12 or 16 months of continuous duration in fields related to computer science during the course of their studies. A grade of NC (No Credit) will be awarded for COMP 3700 if the student is continuing the co-operative internship into the next semester.
CH: 0
PR: admission to the Co-operative Internship in Computer Science (CICS)"

Page 487, 2021-2022 University Calendar under heading 11.4.Computer Science insert the following:

“Admission to the Minor program in the Department of Computer Science is competitive and selective. Students who wish to enter this program must submit a completed application form to the Department of Computer Science by June 1 for Fall semester registration. The online application form is located on the Department of Computer Science’s website.
To be eligible for admission students must have normally completed 9 credit hours as listed below:

1. Computer Science 1001, 1002.
2. Mathematics 1000

Students who fulfill the eligibility requirements compete for a limited number of available spaces. Selection is based on academic performance, normally cumulative average and performance in recent courses.”

Page 462, 2021-2022 University Calendar under heading 4.2.3 Admission to a Minor Program in the Faculty of Science amend the first paragraph as follows:

“Declaration of a Minor program in the Faculty of Science … as the Minor department. Admission to certain Minor programs is limited and competitive.”

Page 521, 2021-2022 University Calendar under heading 12.4 Computer Science Courses add the following new course:

“COMP 3400- Data Preparation Techniques will give students basic knowledge on how to pre-process raw data. The aim is to enable students to perform data pre-processing in small and large data sets, evaluate the effect of pre-processing techniques using data mining/machine learning methods, and to scale up the pre-processing of large datasets using distributed frameworks.
LH: 3
PR: Statistics 2500 or Statistics 2550, COMP 2001”

Page 487, 2021-2022 University Calendar under heading **11.4.4 Major in Computer Science (Smart Systems) (B.Sc. only)** amend as follows:

“…

b. Computer Science 3200, 3201, 3202 and one of 3301, 3401 or 3550; and
c. Six additional credit hours in Computer Science courses selected from Computer Science 4301, 4303, 4750, 4766. Some of these courses require the completion of prerequisites that are not themselves part of the major.

Page 488, 2021-2022 University Calendar under 11.4.5 Major in Computer Science (Visual Computing and Games) (B.Sc. only)

“…

c. Six additional credit hours in Computer Science courses selected from Computer Science 3200, 4301, 4302, 4303, 4304; and

d. Three additional credit hours in Computer Science courses selected from those listed in c. above, or Computer Science 4766, 4768.

…"

Page 467, 2021-2022 University Calendar under heading 10.4.1 Computer Science and Economics Joint Major delete and replace as follows:

"As a component of the **Degree Regulations** for the General Degree of Bachelor of Science, the following courses are required:

1. **Computer Science Requirements**
   Forty-two credit hours in Computer Science courses are required:
   a. Computer Science
      1001, 1002, 1003, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2500, 3731, 3753;
   b. Six additional credit hours in Computer Science courses numbered 3000 or higher.
2. **Economics requirements**
   Forty-two credit hours in Economics courses are required:
   a. Economics 1010 (or the former 2010), 1020 (or the former 2020), 2550, 3000, 3001, 3010;
   b. Six credit hours from either 3550 and 3551, or 4550 and 4551;
   c. The remaining 18 credit hours shall be chosen from among the various Economics courses in consultation with the Head of the Department or delegate, and will include at least 9 credit hours in courses at the 4000 level.
3. **Additional Requirements:** Mathematics 1000, 1001, 2000, 2050, and Statistics 2500 or 2550."

Under 10.1.5 Computer Science and Geography Joint Major amend Clause 3 as follows:

"3. Additional **Requirements**: Mathematics 1000, 1001, 2000, 2050, and Statistics 2500 or 2550."

Department of Mathematics and Statistics

Page 527, 2021-2022 University Calendar under heading 12.8 Mathematics and Statistics insert the following new course:

" **1005 Calculus for Business** is an introduction to differential calculus, including algebraic, exponential, and logarithmic functions. Applications include related rates and optimization in a business context and partial differentiation. This is a terminal course, not intended for those planning on taking further calculus courses. Business students who plan to take further calculus courses should complete MATH 1000 instead of MATH 1005.

LC: 4

PR: MATH 1090 or 109B or a combination of placement test and high school Mathematics scores acceptable to the Department
UL: at most 9 credit hours in Mathematics will be given for courses successfully completed from the following list subject to normal credit restrictions: Mathematics 1000, 1005, 1031, 1050, 1051, the former 1080, the former 1081, 1090, 109A/B, the former 1150 and 1151"

Page 492, 2021-2022 University Calendar under heading 11.8.1 Regulations amend as follows:

" 1. At most 9 credit hours in Mathematics … Mathematics 1000, 1005, 1031…
4. Placement in Mathematics 1000, 1005, 1050 …."

Page 527, 2021-2022 University Calendar under heading 12.8.1 Mathematics Courses insert the following new course:

"4250 Reinforcement Learning considers a mathematical framework in which an agent (such as a person or a robot) learns which actions to take in an environment in order to maximize a specific reward signal. The course provides an introduction to reinforcement learning, including tabular solution methods, dynamic programming, Monte Carlo methods, temporal-difference learning, planning methods and approximate solution methods.
PR: MATH 2051, MATH 3132, STAT 2550."

Page 530, 2021-2022 University Calendar under heading 12.8.2 Statistics Courses amend the following course:

"2500 Statistics for Business and Arts Students covers descriptive statistics ...
PR: 3 credit hours in Mathematics or Statistics courses, or a combination of placement test and high school Mathematics scores acceptable to the Department"

Page 214, 2021-2022 University Calendar under the heading 13.21 Mathematics and Statistics amend the following course:

"2500 Statistics for Business and Arts Students covers descriptive statistics …
PR: 3 credit hours in Mathematics or Statistics courses, or a combination of placement test and high school Mathematics scores acceptable to the School of Science and the Environment"

Page 529, 2021-2022 University Calendar under heading 12.8.2 Statistics Courses delete and replace the following course:

"3585 Computational Statistics is an introduction to modern computational statistics, using a programming language which implements S. Emphasis will be

placed on the development of algorithms and programs for generating random numbers, numerical techniques and programs for graphical exploratory data analysis, implementing specialized statistical procedures, Monte Carlo simulation and resampling.
PR: STAT 2410, STAT 2560”

Department of Psychology

Page 505, 2021-2022 University Calendar under the heading 11.11.9 Suggested Course Sequences delete Table 3 Suggested Course Sequence for B.A. (Honours) in Psychology (Co-operative) and Table 4 Suggested Course Sequence for B.Sc. (Honours) in Psychology (Co-operative) and Table 6 Suggested Course Sequence for B.Sc. (Honours) in Behavioural Neuroscience (Co-operative)in their entirety replace as follows:

“Table 3 Suggested Course Sequence for B.A. (Honours) in Psychology (Co- operative)

Term	Suggested Courses
Fall Semester 1	• Critical Reading and Writing requirement • BA Language Study requirement • Elective or Humanities and Social Sciences requirement • Mathematics 1000 or one of Mathematics 1090, 1050, 1051 • Psychology 1000
Winter Semester 2	• Critical Reading and Writing requirement • BA Language Study requirement • Elective or Humanities and Social Sciences requirement • One of Mathematics 1000, 1090, 1050 or 1051 (Psychology Majors are required to successfully complete Mathematics 1000 or two of 1090, 1050, 1051 (or equivalent). An Elective or Humanities and Social Sciences requirement can be taken if Mathematics 1000 was taken in Semester 1.) • Psychology 1001
Fall Semester 3	• Elective or Humanities and Social Sciences requirement • Elective or Humanities and Social Sciences requirement • Elective or Humanities and Social Sciences requirement • Psychology 2520 or 2930 • Psychology 2910
Winter Semester 4	• Elective or Humanities and Social Sciences requirement • Elective or Humanities and Social Sciences requirement • Elective or Humanities and Social Sciences requirement • Psychology 2911 • Psychology 2930 or 2520
Spring	Psychology 199W

Work Term 1	
Fall Semester 5	• Elective or Humanities and Social Sciences requirement • Psychology 3000-Level Core • Psychology 3000-Level Core • Psychology 3000-Level Core • Psychology 3900
Winter Semester 6	• Elective or Humanities and Social Sciences requirement • Elective or Humanities and Social Sciences requirement • Psychology 3000-Level Core • Psychology Research Experience course • Psychology 4910 (may be offered in Fall or Winter semester)
Spring Work Term 2	Psychology…

“

“Table 4 Suggested Course Sequence for B.Sc. (Honours) in Psychology (Co- operative)

Term	Suggested Courses
Fall Semester 1	• Biology 1001 • Chemistry 1010 (or 1050) or Physics 1020 (or 1050) (Students registered in Physics 1050 must also be registered in Mathematics 1000 (not 1090)). • Critical Reading and Writing requirement • Mathematics 1090 or Mathematics 1000 • Psychology 1000
Winter Semester 2	• Biology 1002 • the former Chemistry 1011 (or 1051) or Physics 1021 (or 1051) • Critical Reading and Writing requirement • Mathematics 1000 or Elective or Science requirement • Psychology 1001
Fall Semester 3	• Biology, Chemistry, or Physics Lab Course • Elective or Science requirement • Elective or Science requirement • Psychology 2520 or 2930 • Psychology 2910
Winter Semester 4	• Biology, Chemistry, or Physics Lab Course • Elective or Science requirement • Elective or Science requirement • Psychology 2911 • Psychology 2930 or 2520 …

“

"Table 6 Suggested Course Sequence for B.Sc. (Honours) in Behavioural Neuroscience (Co-operative)

Term	Suggested Courses
Fall Semester 1	• Biology 1001 or Physics 1020 (or 1050) (Students registered in Physics 1050 must also be registered in Mathematics 1000 (not 1090)). • Chemistry 1050 (or 1200) • Critical Reading and Writing requirement • Mathematics 1090 or 1000 • Psychology 1000
Winter Semester 2	• Biology 1002 or Physics 1021 (or 1051) • Chemistry 1051 (or 1001) • Critical Reading and Writing requirement • Mathematics 1000 or 1001 • Psychology 1001
Fall Semester 3	• BHNR Requirement 1 (BHNR Requirement 1-6 specified in clause 3, Requirements for a Major in Behavioural Neuroscience (B.Sc. Only). • Elective or Science requirement • Physics 1020 (or 1050) or Biology 1001(Students registered in Physics 1050 must also be registered in Mathematics 1000 (not 1090)). • Psychology 2521 or 2930 • Psychology 2910
Winter Semester 4	• BHNR Requirement 2 (BHNR Requirement 1-6 specified in clause 3, Requirements for a Major in Behavioural Neuroscience (B.Sc. Only). • Mathematics 1001 or Elective or Science requirement • Physics 1021 (or 1051) or Biology 1002 • Psychology 2911 • Psychology 2930 or 2521
Spring Work Term 1	Psychology 199W
Fall Semester 5	• BHNR Requirement 3 (BHNR Requirement 1-6 specified in clause 3, Requirements for a Major in Behavioural Neuroscience (B.Sc. Only). • Elective or Science requirement • Psychology 3810, 3830, 3840, or 3860 • Psychology 3800 • Psychology 3900
Winter Semester 6	• BHNR Requirement 4 (BHNR Requirement 1-6 specified in clause 3, Requirements for a Major in Behavioural Neuroscience (B.Sc. Only). • Elective or Science requirement • Elective or Science requirement • Psychology 3000-level core • Psychology 3820
Spring	Psychology 299W

Work Term 2	
Fall Semester 7	• BHNR Requirement 5 (BHNR Requirement 1-6 specified in clause 3, Requirements for a Major in Behavioural Neuroscience (B.Sc. Only). • Elective or Science requirement • Elective or Science requirement • Psychology Research Experience course • Psychology 499A
Winter Work Term 3	Psychology 399W
Spring (Optional)	Psychology 499A, or 499B
Fall Semester 8	• BHNR Requirement 6 (BHNR Requirement 1-6 specified in clause 3, Requirements for a Major in Behavioural Neuroscience (B.Sc. Only). • Elective or Science requirement • Elective or Science requirement • Psychology Selected Topics course • Psychology 499B

"

Page 502, 2021-2022 University Calendar under the heading 11.11.5 Requirements for a Major in Behavioral Neuroscience (B.Sc. Only) amend Clause 2 and Clause 3 as follows:

"2.

a. Mathematics 1000 (or equivalent).
b. Chemistry 1050 and 1051 (or 1200 and 1001).
c. Physics 1020 (or 1050) and 1021 (or 1051).
d. Biology 1001 and 1002.
e. Six credit hours in Critical Reading and Writing (CRW) courses, including at least 3 credit hours in English courses.

3. Eighteen credit hours from the following courses chosen from at least two different sciences:

a. Biochemistry: Any 2000-, 3000-, or 4000-level course except the former 2000, 2005, the former 2010, the former 2011, 3202, 3402, or 4502.
b. Biology: Any 2000-, 3000-, or 4000-level course except 2040, 2041, 2120, 3053, or 3820.
c. Chemistry: 2100, 2210, 2301 (or the former Chemistry 2300), 2302, 2400, 2401, 2610, or any 3000 or 4000 level course…"

Page 538, 2021-2022 University Calendar under the heading 12.11.3 Psychology Work Term Descriptions Psychology 199W, Psychology 299W, Psychology 399W delete in its entirety and replace as follows:

“1. In Work Terms I, II, and III, students must register for Psychology 199W, 299W, and 399W respectively.

The following Work Term courses are available only to students admitted to the Psychology Co-operative Education Program and who meet continuance requirements as outlined in 11.11.8.2.2.

199W
Work Term I
normally follows the successful completion of Semester 4. Students are expected to build on classroom learning and develop and practice high standards of behaviour and performance in a work environment.
CH: 0
LC: 0
OR: co-op professional development sessions
PR: Full-time status in previous term; admitted to PCOP

299W
Work Term II
normally follows the successful completion of Semester 6. Students are expected to further develop and expand their knowledge and work-related skills and demonstrate an ability to deal with increasingly complex work-related concepts and problems.
CH: 0
LC: 0
PR: Psychology 199W

399W
Work Term III
normally follows the successful completion of Semester 7. Students should have sufficient academic grounding and work experience to contribute in a positive manner to the problem-solving and management processes needed and practiced in the work environment.
CH: 0
LC: 0
PR: Psychology 299W”

Page 536, 2021-2022 University Calendar under heading 12.11.2 Majors Courses amend the following courses:

“3800 Cellular and Molecular Neuroscience addresses…
OR: Animal Care Online Training and Animal Handling Training must be completed prior to start of this course”

“3820 Research Techniques in Behavioural Neuroscience allows …

OR: Animal Care Online Training and Animal Handling Training must be completed prior to start of this course"

"**4870 Research Experience in Behavioural Neuroscience** allows …
OR: Animal Care Online Training and Animal Handling Training must be completed prior to start of this course"

Page 462, 2021-2022 University Calendar under the heading 4.3 Core Requirements and Academic Advising insert a new Clause 2 as follows:

"2. The Core requirement may be modified for students in certain programs by approved departmental regulations."

Renumber the current Clause 2 as Clause 3.

Page 501, 2021-2022 University Calendar under heading 11.11 Psychology insert a new sub-heading as follows:

11.11.1. Regulations
Students who are completing a Major or Honours program in Psychology or Behavioural Neuroscience may substitute Psychology 2911 for 3 credit hours in Mathematics and Statistics courses for the purpose of fulfilling the Core Requirements, as described under 4.3 Core Requirements and Academic Advising.

Renumber the current Clauses 11.11.1 to 11.11.10 accordingly.

Page 535, 2021-2022 University Calendar under the heading 12.11.2 Majors Courses insert the following new course:

"4920 Psychological Testing focuses on the principles of psychological testing, relevant psychometric properties, and methods by which tests are developed. The course is designed to review the nature and use of psychological tests and will cover topics such as test norms, interpretability, reliability, item analysis, validity, and test development. This course includes a survey development and data management component where students will create and validate their own psychological survey.
PR: 6 CH in any 3000-level restricted Psychology courses and admission to a Major in Psychology or Behavioural Neuroscience.
CR: Psychology 3628"

Page 218, 2021-2022 University Calendar under heading 13.25.2 Contemporary Issues Courses amend the following course:

"3628 Contemporary Issues in Psychological Testing and Measurement …

CR: Psychology 4920”

66.7. Grenfell Campus

Page 219, 2021-2022 University Calendar under heading 13.25.3 Senior Courses delete and replace the following course:

“4910 Systems of Psychology is a study of paradigms and explanations in contemporary psychology in the context of their historical antecedents.
CO: At the St. John’s campus only, PSYC 3900 or 3950, or permission of instructor
PR: 30 credit hours in Psychology courses required in a Majors program. At the Grenfell Campus only, this must include PSYC 2950.”

Page 536, 2021-2022 University Calendar under the heading 12.11.2 Majors Courses delete and replace the following course:

“4910 Systems of Psychology is a study of paradigms and explanations in contemporary psychology in the context of their historical antecedents.
CO: At the St. John’s campus only, PSYC 3900 or 3950, or permission of instructor
PR: 30 credit hours in Psychology courses required in a Majors program. At the Grenfell Campus only, this must include PSYC 2950.”

Page 214, 2021-2022 University Calendar under heading 13.21 Mathematics and Statistics delete the second paragraph in its entirety and replace with the following:

“At Grenfell Campus, students who have completed high school mathematics may enter directly into Mathematics 1052 or 1053. However, placement in other first-year mathematics courses is based upon a student’s pre-requisite level of proficiency in mathematics as demonstrated in a manner that is acceptable to the School of Science and the Environment. This may be through a combination of credit and grades earned in recognized high school or undergraduate mathematics courses or through scores earned in the University’s Mathematics Placement Test (MPT) or Calculus Placement Test (CPT), or recognized, standardized examinations such as International Baccalaureate (IB), Advanced Placement (AP), or the College Board’s Subject Area Test in Mathematics Level I (SATM1) examinations.”

Insert the following new course:

“109A and 109B Introductory Algebra and Trigonometry is a two-semester course which provides students with the essential prerequisite elements for the study of an introductory course in calculus, at a slower pace than MATH 1090. Topics include algebra, functions and their graphs, exponential and logarithmic functions, trigonometry, polynomials, and rational functions.

CR: if previously successfully completed or currently registered for MATH 1000, 1001, 1090, the former 1080, or the former 1081
LH: 1.5
PR: a combination of placement test and high school Mathematics scores

acceptable to the School of Science and the Environment”

Amend the following courses:

“1000 Calculus I…
PR: MATH 1090 or 109B or a combination of placement test and high school Mathematics scores acceptable to the School of Science and the Environment”

“1001 Calculus II
… LH: 1.5
PR: MATH 1000 or the former MATH 1081”

“1090 Algebra and Trigonometry …
CR: if previously successfully completed or currently registered for MATH 1000, MATH 1001, 109A/B, the former 1080, or the former 1081
LH: 1.5
PR: a combination of placement test and high school Mathematics scores acceptable to the School of Science and the Environment or the former MATH 104F”

Page 198, 2021-2022 University Calendar under heading 13.3 Biology amend the following courses:

“2010 Biology of Plants is a study…
LH: 3
PR: BIOL 1001 and BIOL 1002; Science 1807 and Science 1808”

“2210 Biology Of Vertebrates is a study …
CR: the former BIOL 3210 LH: 3
PR: BIOL 1001 and 1002; Science 1807 and Science 1808”

“2250 Principles of Genetics is an introduction …
CR: Biochemistry 2100, Biochemistry 2200, the former BIOL 3250
LH: 3
PR: BIOL 1001 and 1002, Chemistry 1200 or 1050; Science 1807 and Science 1808”

“2600 Principles of Ecology is a conceptual …
CR: the former BIOL 3600
LH: 3
PR: BIOL 1001 and 1002; Science 1807 and Science 1808”

Page 207 13.13.1 Environmental Biology amend the following courses:

“3131 Impacted Terrestrial Ecosystems is an examination …
CR: Biology 3610
LH: 3
PR: Biology 2600; two of Biology 2010, Biology 2122, Biology 2210 or permission of the Program Chair; Science 1807 and Science 1808”

“4132 Analytical Ecology provides a foundation in univariate and multivariate statistical procedures, and applies this understanding to the critical analysis of scientific literature dealing with community, ecosystem and landscape ecology.
LH: three-hour laboratory/discussion group
PR: Biology 2600, Statistics 2550 (or equivalent), and at least 9 credit hours in Environmental Science at the 2000 level or above, or permission of the Program Chair”

Under the sub-heading 13.13.3 Other Environmental Science amend the following courses:

“2000 Sampling Methods in Environmental Science introduces ….
PR: Two of Biology 1002, Chemistry 1001, or Earth Sciences 1000, or permission of the Program Chair; Science 1807 and Science 1808”

“2360 Geological Hazards and Natural Disasters will introduce …
CR: Earth Sciences 2916 PR: 18 credit hours or more”

“2369 Introduction to Soils provides …
PR: 18 credit hours or more”

“2370 Global Environmental Change is a survey …
PR: 18 credit hours or more”

Delete the course 2371 Oceanography in its entirety.

“**4369 Environmental Hydrology** provides …
PR: Earth Sciences 1000, Mathematics 1000 and Physics 1020 or 1050, or permission of the Program Chair. It is recommended that students complete at least 75 credit hours before registering for this course”

“4479 Groundwater Flow provides a quantitative approach to the occurrence, characterization, flow and modeling of groundwater systems. Thus, the students will acquire solid knowledge of the basic principles governing groundwater flow systems and their quantification of interest to environmental scientists and will help to develop a balanced view for sustainable development and management of groundwater systems.
CR: Earth Sciences 3610, the former 4610

PR: Earth Sciences 1000, Mathematics 1000 and Physics 1020 or 1050, or permission of the Program Chair. It is recommended that students complete at least 75 credit hours before registering for this course"

66.8 School of Social Work

Page 545, 2021-2022 University Calendar under heading 4.5 Complementary Studies delete Table 1 Complementary Studies in its entirety and replace as follows:

"Table 1 Complementary Studies

The Six Learning Objectives for Complementary Studies Courses	**Approved Disciplines** o Specific course numbers for each discipline can be found at www.mun.ca/socialwork/programs/undergraduate
o Learning Objective one o Students will develop university knowledge and skills in critical reading, writing, and analysis	Critical Reading and Writing Courses (CRW) as approved by Senate for the B.A. A list of these courses can be found at: https://www.mun.ca/hss/programs/undergraduate/crw_course_list.php
o Learning Objective Two o Students will develop foundational knowledge and appreciation for the various expressions and experiences of human and cultural diversity.	Anthropology, English, Communication Studies, Folklore, Gender Studies, Humanities, Linguistics, Psychology, Religious Studies, Sociology
o Learning Objective Three o Students will develop foundational knowledge and understanding of historical and contemporary experiences of Indigenous peoples of Canada.	Anthropology, Archaeology, English, Gender Studies, History, Humanities, Linguistics, Political Science, Law and Society, Religious Studies, Sociology

o Learning Objective Four o Students will develop foundational knowledge and awareness of the historical and contemporary realties of social inequities, imperialism, and racism.	Anthropology, Archaeology, Criminology, Gender Studies, Geography, History, Linguistics, Sociology
o Learning Objective Five o Students will develop foundational knowledge in governance, policy- making, and the justice system.	Criminology, Gender Studies, Humanities, Law and Society, Political Science, Sociology
o Learning Objective Six o Students will develop a critically reflective understanding of contemporary society (locally, nationally, and globally) and their place in it.	Anthropology, Archeology, English, Environment and Sustainability, Geography, History, Humanities, Philosophy, Religious Studies, Social/Cultural Studies, Sociology
Courses may be offered at any of the Memorial University of Newfoundland Campuses and/or online. Specific course numbers for each discipline are found at www.mun.ca/socialwork/programs/undergraduate. For further information about course content refer to the appropriate Course Descriptions sections for the Faculty of Humanities and Social Sciences and the Faculty of Science for the St. John's Campus and the Course Descriptions section for the Grenfell Campus.	

"

Under the heading 5 Admission Regulations for the School of Social Work
Sub-heading 5.1 General Information amend Clause 5 as follows:

"5. The School of Social Work strives to enrich … Therefore, the School offers a minimum of 15% of the total number of seats in the Bachelor of Social Work program to eligible applicants who have met the minimum requirements for admission and who identify as one or more of the following groups: First Nations, Inuit, or Métis (minimum of 5% of seats); members of a racialized group (minimum of 5% of seats); and/or members of another equity group (minimum of 5% of seats). All applicants applying under the Educational Equity Initiative must complete the appropriate section on the School of Social Work First Degree or Second Degree Application form."

Under the sub-heading 5.3.2 Second Degree Program amend Clause 1.c as follows:

"c. completed a minimum of 45 credits hours from the following disciplines: Anthropology, Archaeology, Criminology, English, Gender Studies, Geography, History, Humanities, Law and Society, Linguistics, Philosophy, Political Science, Psychology, Religious Studies, Social/Cultural Studies, Sociology…"

67. Report from the Academic Council of School of Graduate Studies

Page 593, 2021-2022 University Calendar under heading 9.8.1 Qualifications for Admission amend as follows:

"To be considered for admission, an applicant must normally have completed an undergraduate Degree in Economics with at least …."

Page 708, 2021-2022 University Calendar under heading Folkfore 40.16.1 Program of Study amend Clause 2 as follows:

"All Ph.D. students in the Folklore program must complete *at least* 18 credit hours in program graduate courses which shall include Folklore 7000. Students will normally …"

Under sub-heading 40.16.2 Courses amend the first paragraph as follows:

"A selection of the following graduate courses … Interdisciplinary Perspectives and Ph.D."

Amend the sub-heading "Required Ph.D" as "Ph.D**."**

Page 617, 2021-2022 University Calendar under heading 12.4.1 Fall Semester (15 credit-hours), and amend as follows:

"12.4.1 Fall Semester (18 credit-hours)…

- Business 8504 Managing Social Enterprise: Accounting (3 credit-hours)…
- Business 8506 Managing Social Enterprise: Information Systems (3 credit-hours)"

Under heading 12.4.2 Winter Semester (15 credit-hours) amend as follows:

"12.4.2 Winter Semester (18 credit-hours) …

- Business 8507 Managing Social Enterprise: Finance (3 credit-hours)
- Business 8508 Managing Social Enterprise: Operations Management (3 credit-hours)…"

Under heading 12.4.3 Spring/Summer (6 credit-hours) amend as follows:

"12.4.3 Spring/Summer (non-credit)

- Business 8517 Internship (mandatory non-credit course)
- Business 8518 Reflections (mandatory non-credit course)"

Amend the following courses:

"**BUSI 8504: Managing Social Enterprises: Accounting** (3 credit-hours)
This course.. accounting."

"**BUSI 8506: Managing Social Enterprises: Information Systems** (3 credit-hours)
This course … change."

"**BUSI 8507: Managing Social Enterprises: Finance** (3 credit-hours)
This course … finance."

"**BUSI 8508: Managing Social Enterprises: Operations Management** (3 credit-hours)
This course … management."

"**BUSI 8517: Internship** (non-credit)
Students … scheme."

"**BUSI 8518: Reflections** (non-credit)
Students … scheme."

Page 663, 2021-2022 University Calendar under heading 28.11.2.2 General Courses add the following course:

"EASC 6120: Kinematic Modelling of Plate Tectonics"

Under sub-heading 40.9.2.2 General Courses add the following new course:

"EASC 6120: Kinematic Modelling of Plate Tectonics"

Page 636, 2021-2022 University Calendar under heading 18 Regulations Governing the Degree Master of Gender Studies sub-heading 18.2 Qualifications for Admission delete Clause 2 in its entirety and replace with the following:

"2. Applicants who do not have an adequate background in Gender Studies may be required to complete Gender Studies 3005, Gender Studies 3025, or Gender Studies 4000, or equivalent, normally with a grade of 75% or higher."

Under sub-heading 18.3 Program of Study delete in their entirety Clauses 1 and 4 and replace with the following:

"1. Upon admission, each graduate student in the thesis program will be assigned a supervisor. The supervisory committee, formed prior to the development of the thesis, project, or internship proposal, will include

either one or two supervisors. For students selecting the non-thesis option, one supervisor will be selected…

4. Each student will be required to give a public seminar on the student's thesis research, project, or internship after approval of the thesis, project, or internship proposal and before of the student's final thesis/project/internship report."

Under sub-heading 18.5 Project delete Clause 1 and 2 in their entirety and replace with the following

"1. Students for the Degree of Master of Gender Studies (project option) will be required to complete a minimum of 15 credit hours. Students will also be required to complete a project, to be submitted as a portfolio style thesis.
2. The Master's project must be interdisciplinary in nature and aimed at linking theoretical and practical knowledge by recognizing and articulating a problem relevant to Gender Studies and by developing and justifying theoretical and practical approaches. The project report should consist of the project (e.g., a film or video; a website; a manual, guidebook, or other learning resource; digital, audio, or video files, etc.) as well as a literature-based rationale, theoretical basis and justification for its use. The length of the written portion of the project should be 10-15,000 words. Regardless of the form that the project takes (e.g., a film or video; a website; a manual, guidebook, or other learning resource; a kit of learning resources; photographs; audio or videotape, digital, audio, or video files, etc.), there must be a written component."

Page 646, 2021-2022 University Calendar under heading 23 Regulations Governing the Degree Master of Maritime Management under sub-heading 23.2.4.2 Elective Courses under the sub-heading Maritime Management Electives delete the following courses:

"Mari 6047- Maritime Security and Event Investigation"
"Mari 6051 International Maritime Compliance and Business Continuity Planning"

Add the following new course:

"MARI 6052 Human Factors in Maritime Management- provides students with a foundational understanding of the human element of safety in the maritime context. The course will focus on applying human factors methods and system theories to

complex socio-technical systems. The course may be offered in an accelerated format."

Under the sub-heading Technology Management Electives amend the following course:

"TECH 6023 Strategic Technology Management *(credit restricted with the former MSTM 6023)*
TECH 6034 Project Management in Engineering Technology Environments *(credit restricted with the former MSTM 6034)"*

Page 691, 2021-2022 University Calendar under heading 39 Regulations Governing the Degree of Master of Technology Management under sub-heading 39.2 Program delete in its entirety and replace with the following:

"The Master of Technology Management (MTM) program provides a broad understanding of the structure and operation of organizations and the factors that influence business decisions in the context of technology- based organizations. It provides a technology management focus through the development of knowledge and understanding of the nature of technical operations and the factors that have an impact on their success, as well as the ability to apply these concepts within organizations.

The program consists of two Options:

- Engineering Technology and Applied Science Option
- Aquaculture Technology Option

Each program Option consists of two Routes:

- Course (30 credit hours of comprehensive course work).
- Project (30 credit hours of comprehensive course work that includes a 6 credit-hour capstone research project and report course)

The program is offered online. Students will typically register on a part-time basis."

Under the sub-heading 39.2.1 Admission Requirements amend Clause 3 as follows:

"3. In exceptional cases … and relevant professional experience, have successfully completed…"

Delete Clause 5 in its entirety and replace with the following:

"5. Upon acceptance into the program, students will be admitted to one of the two Options: the Engineering Technology and Applied Science Option or the Aquaculture Technology Option. Students admitted to the Engineering Technology and Applied Science Option will initially be enrolled in the Course Route. Upon completion of a minimum of 3 program courses and a preparatory workshop module

for the capstone research project and report course, a student, with permission of the Academic Director, may change to the Project Route."

Under sub- heading 39.2.2 Program of Study, sub-heading 39.2.2.1 Master of Technology Management - Engineering Technology and Applied Science Option delete Clauses 1 through 5 in their entirety and replace with the following:

"

1. Students in the Master of Technology Management (Engineering Technology and Applied Science Option) shall be required to complete a minimum of either:
    a. 30 credit hours on a comprehensive course route. Course work includes three compulsory **Core Courses** (9 credit hours) and seven **Category A Electives** (21 credit hours).
    b. 30 credit hours on a comprehensive project route, including 24 credit hours of course work, a preparatory workshop module for the capstone research project and report course, and a 6 credit hour capstone research project and report course. Course work includes three compulsory **Core Courses** (9 credit hours) and five **Category A Electives** (15 credit hours). Students on the project route will complete TECH 610A (zero credit hours) and TECH 610B (6 credit hours): Research Project in Technology Management). During TECH 610A/B, students will choose a topic in consultation with the Academic Director, find a research project supervisor, and will work independently to carry out an in-depth study of a problem or application within the area of technology management and fully document and present their findings. Preferably the problem will be directly related to a workplace situation.
2. Project Route
    a. Students on the Project Route must complete TECH 610A/B.
    b. Registration in TECH 610A/B requires a Course Change Form signed by the Academic Director.
    c. Student will normally complete TECH 610A/B in the last two terms of the program.
    d. Students must complete TECH 610A in no more than 1 term or they will be required to switch back to the Course Route to complete the program.
3. Special topics course registration requires a Course Change Form signed by the Academic Director.
4. Up to three relevant elective courses (9 credit hours) may be transferred from other graduate programs within the School of Graduate Studies or from other post-secondary institutions recognized by Senate, subject to the approval of the Dean of Graduate Studies on the recommendation of the Academic Director.
5. Students with full-time status may register for a maximum of 9 credit hours in any regular semester and a maximum of 6 credit hours in intersession or summer session.

6. Students with part-time status may register for a maximum of 6 credit hours in any regular semester and a maximum of 3 credit hours in intersession or summer session.
7. Students may register for an additional course in a semester or session with the permission of the Academic Director."

Under sub-heading 39.2.1 Evaluation delete Clause 1 in its entirety and replace with the following:

"1. Students in the Master of Technology Management program must obtain a grade of B or better in all program courses."

Under sub-heading 39.2.4 Courses, sub-heading 39.2.4.2 Elective Courses delete Category A Electives in its entirety and replace with the following:

"Category A Electives

- MSTM 6056 Management of International Development
- TECH 6022 Communication and Conflict Resolution in a Technical Environment (*credit restricted with the former MSTM 6022*)
- TECH 6023 Strategic Technology Management (*credit restricted with the former MSTM 6023*)
- TECH 6030 Principles of Management for Engineering Technology Enterprises (*credit restricted with the former MSTM 6030*)
- TECH 6033 Quality Systems (*credit restricted with the former MSTM 6033*)
- TECH 6034 Project Management in Engineering Technology Environments (*credit restricted with the former MSTM 6034*)
- TECH 6035 Strategic Information Technology Management (*credit restricted with the former MSTM 6035*)
- TECH 6036 Supply Chain Management and Advanced Engineering Technology Operations (*credit restricted with the former MSTM 6036*)
- TECH 6037 Risk Management in the Engineering Technology Sector (*credit restricted with the former MSTM 6037*)
- TECH 6038 Manufacturing and Engineering Technology Management (*credit restricted with the former MSTM 6038*)
- TECH 6039 Sustainability and Environmental Responsibility (*credit restricted with the former MSTM 6039*)
- TECH 6052 Management of Intellectual Property (*credit restricted with the former MSTM 6052*)
- TECH 6053 Legal Implications of Technology Management (*prerequisite TECH 6032*)
- TECH 6055 Asset Integrity Management
- TECH 6057 Technology Enabling the Blue Economy
- TECH 6080-89 Special Topics in Technology Management"

Under sub-heading 39.2.4.3 Project Courses delete in its entirety and replace with the following:

"39.2.4.1Project Courses

- MSTM 6102 Project in Aquaculture Technology Management (*6 credit hours*)
- TECH 610A Research Project in Technology Management (0 credit hours)
- TECH 610B Research Project in Technology Management (6 credit hours) (*credit restricted with TECH 6100 and the former MSTM 6100*)"

Page 661, 2021-2022 University Calendar under heading 28.10 Computer Science add the following to the list of websites:

www.mun.ca/computerscience/grad/

Under sub-heading 28.10.1 Admission Requirements delete the first paragraph in its entirety and replace with the following:

"Admission into a Master's program in Computer Science is restricted to students holding at least a Bachelor degree (major in Computer Science or Computer Engineering) with a minimum average of 75% overall, and/or a second Class Upper or higher standing. When circumstances warrant, this requirement may be waived on the recommendation of the Head of the Department. Applicants should also refer to the Qualifications for Admission given under the Regulations Governing the Degree of Master of Science within the School of Graduate Studies section of the current Calendar. International applicants are encouraged to submit results of the (general) Graduate Record Examination (GRE) test. Applicants may apply initially for Option 1 or Option 2 only; students may apply for Option 3 toward the end of their first semester of study."

Under sub-heading 28.10.2 Programs sub-heading 28.10.1.1 Option 1- Thesis Route amend as follows:

"1. Students are required … COMP 690A/B and 6 additional credit hours in Computer Science (excluding COMP 601W and COMP 6999).

…

3. Students must participate in the Research Forum at least once during their program. The Student Research Forum is organized by the Department of Computer Science and takes place each academic year."

Insert the new 28.10.2.2 Coursed Based Route as follows:

"28.10.1.1 Option 2 – Course-based Route

1. Students are required to complete a minimum of 30 credit hours in graduate program courses, of which at least 21 credit hours must be in Computer Science, whereas the remaining 9 could be Computer Science courses, other courses related to computer science and included in the list of CS- approved elective courses maintained by the Graduate Studies

Committee, available at www.mun.ca/computerscience/grad, or other courses previously approved by the Graduate Studies Committee, or its Chair.

2. Within the 30 credit hours requirement, a student must take COMP 6999 (Master's Project).
3. Prior to graduation and as part of successfully completing COMP 6999, students are required to present a seminar on their project."

Delete the current 28.10.2.23 Option 2- Work Term Route in its entirety and replace with the following:

"28.10.2.3 Option 3 – Work-Term Route

The work term route provides an opportunity for graduate computer science students to learn valuable practical skills while working in fields related to computer science. Students complete a full-time, paid work term (COMP 601W) of four or eight months with a single employer as an essential component of their academic program. There is no direct entry into this program. Students may apply for admission into Option 3-Work Term Route towards the end of their first semester in Option 1 – Thesis Route or Option 2 – Course-based Route.

1. Admission Requirements
    a. Admission to the work term route is limited, competitive, and selective.
    b. The primary criteria used in reaching decisions on applications for admission is academic performance, relevant experience and motivation. Students may be required to participate in an interview as part of the selection process.
    c. Applications are accepted each semester, approximately 4-5 months in advance of the work term start. Students are informed of application deadlines by the Department of Computer Science.
    d. Students must have completed 12 credit hours of program courses prior to the work term start. Students must have at least one required course remaining after the work term.
2. Program of Study
    a. Students are required to complete a minimum of 24 credit hours in graduate program courses, of which at least 18 credit hours must be in Computer Science, whereas the remaining 6 should be either in Computer Science, related to computer science and included in the list of elective courses maintained by the Graduate Studies Committee, or previously approved by the Graduate Studies Committee, or its Chair.
    b. Within this credit requirement, a student must take the following courses:
        - COMP 6999 (Master's Project)

- One course in Software Engineering (COMP 6905)
- One course in Algorithms (COMP 6901, COMP 6902, or COMP 6981)

c. Additionally, students are required to complete one co-operative education work term (COMP 601W). The work term is a full-time, four- or eight- months duration paid work experience with one employer.

d. The work term job search takes place throughout the semester prior to the start of the intended work term. Students who are not successful in securing a work term job in their first search semester may continue their search for up to two additional semesters.

e. Prior to graduation and as part of successfully completing COMP 6999 (Master's Project), students are required to present a seminar on their project.

3. Work Term

a. Students will conduct job searches with an Academic Staff Member in Co-operative Education in cooperation with the Department of Computer Science. It is the student's responsibility to seek and

obtain a work term placement and to communicate with all parties both within the University and beyond in a professional manner. While the student's job search is supported by the Academic Staff Member in Co-operative Education, it is the student's responsibility to secure a work term placement. Work term placements are not guaranteed. Work term placements obtained outside the job competition must be confirmed by letter from the employer and approved by an Academic Staff Member in Co-operative Education on or before the first day of the work term.

b. Work terms start in January, May and September, the start and end dates are available at mun.ca/coop/.

c. Each work term placement will be supervised by the student's on-site workplace supervisor and the Academic Staff Member in Co-operative Education. The overall evaluation of the work term is the responsibility of the Academic Staff Member in Co-operative Education. The work term shall consist of two components:

- On-the-job Student Performance as evaluated by the workplace supervisor and the Academic Staff Member in Co-operative Education.
- Assignment(s) graded by the Academic Staff Member in Co-operative Education."

Delete the current 28.10.3 Other Regulations in its entirety and replace with the following:

"28.10.4 Other Regulations

1. Students from either Option 1 - Thesis Route or Option 2 - Course-Based Route may request to transfer to a different route once during their studies, after completing 4 courses (12 credit hours) in their original program upon admission to the School of Graduate Studies at Memorial.
2. All students are expected to take an active part in seminars and other aspects of the academic life of the Department of Computer Science.
3. Unless the work-term takes longer than one term, full-time students are expected to complete all program requirements in two years. Part-time students are expected to complete all program requirements in four years."

Delete the current 28.10.4 Courses in its entirety and replace with the following:

"28.10.5 Courses

A selection of the following graduate courses will be offered to meet the requirements of students, as far as the resources of the Department will allow. Normally, students will be expected to complete their course work during the Fall and Winter.

- 601W Work Term
- 690A/B Research Methods in Computer Science
- 6758-6769 Special Topics in Computer Applications
- 6770-6790 Special Topics in Computer Science
- 6901 Applied Algorithms *(credit restricted with 6783)*
- 6902 Computational Complexity *(credit restricted with 6743)*
- 6903 Concurrent Computing
- 6904 Advanced Computer Architecture *(credit restricted with 6722)*
- 6905 Software Engineering *(credit restricted with 6713)*
- 6906 Numerical Methods *(credit restricted with 6731)*
- 6907 Data Mining Techniques and Methodologies *(credit restricted with 6762)*
- 6908 Database Technology and Applications *(credit restricted with 6751)*
- 6909 Fundamentals of Computer Graphics (*credit restricted with 6752)*
- 6910 Services Computing, Semantic Web and Cloud Computing
- 6911 Bio-inspired Computing
- 6912 Autonomous Robotics *(credit restricted with 6778)*
- 6913 Bioinformatics
- 6914 3D Modelling and Rendering
- 6915 Machine Learning
- 6916 Security and Privacy
- 6918 Digital Image Processing *(credit restricted with 6756)*
- 6921 Syntax and Semantics of Programming Languages *(restricted with 6711)*

- 6922 Compiling Methods *(credit restricted with 6712)*
- 6924 Formal Grammars, Automata and Languages
- 6925 Advanced Operating Systems
- 6926 Performance Evaluation of Computer Systems *(restricted with 6926)*
- 6928 Knowledge-Based Systems *(credit restricted with6755)*
- 6929 Advanced Computational Geometry *credit restricted with 6745)*
- 6930 Theory of Databases *(credit restricted with 6742)*
- 6931 Matrix Computations and Applications *(credit restricted with-6732, and CMSC 6910*
- 6932 Matrix Computations in Control *(credit restricted with 6738)*
- 6933 Nonlinear and Linear Optimization *(cross-listed with Math 6202)*
- 6934 Introduction to Data Visualization *(credit restricted with 6774)*
- 6980-6998 Special Topics in Computer Science
- 6999 Master's Project"

68. Report of the Senate Committee on Elections, Committees and By-Laws

The Senate Committee on Elections, Committees and Bylaws has approved the following membership on Senate Standing Committees as per the terms outlined in the submissions:

- Dr. Larry Bauer- Faculty of Business Administration, elected to the Senate Committee on Academic Appeals for a term commencing immediately and expiring August 31, 2024
- Dr. Chris Kozak- Faculty of Science, elected as a Senator from the Constituency of Science for a term of office commencing immediately and expiring August 31, 2024
- Dr. Paul Marino- Faculty of Science, elected as a member to the Senate Committee on Undergraduate Studies for a term commencing immediately and expiring August 31, 2024

REGULAR AGENDA

69. Academic Council of the School of Graduate Studies

Proposed new program Master of Accounting (MAcc)

It was moved by Dr. Sutherland, seconded by Dr..Peters that the proposed new program Master of Accounting (MAcc) be approved as outlined in the background documentation as follows:

Page 553, 2021-2022 University Calendar, under the heading School of Graduate Studies, insert the following new program:

"1.0 Regulations Governing the Degree of Master of Accounting

www.mun.ca/sgs/contacts/sgscontacts.php

www.business.mun.ca

www.mun.ca/become/graduate/apply/app_deadlines.php

The Degree of Master of Accounting (MAcc) is offered by full-time study only. These regulations must be read in conjunction with the General Regulations of the School of Graduate Studies of Memorial University of Newfoundland.

1.1 Qualifications for Admission

1. Admission is limited and competitive. To be eligible for consideration for admission to the Master of Accounting program, an applicant shall:

a. normally hold at least a Bachelor's Degree, with a minimum 'B' standing, or second class standing from an institution recognized by Senate;

b. demonstrate coverage of the CPA Competency Map at the 'Entry' level, and a minimum grade of 60% in each of the prerequisite courses (courses that meet the Entry level requirements of the CPA Competency Map) with a minimum overall average of 75% in the prerequisite courses.

2. An applicant who did not complete a Bachelor's degree at a recognized university where English is the primary language of instruction must normally complete either the:

a. Test of English as a Foreign Language (TOEFL) and achieve a paper-based score of 580 (or higher), computer-based score of 237 (or higher), or Internet based score of 92-93 (or higher); or

b. International English Language Testing System (IELTS) and achieve a score of 7 (or higher).

Information regarding the TOEFL is available from the Educational Testing Service at www.ets.org. IELTS information is available at www.ielts.org.

1.2 Deadlines for Applications

Applications and all supporting documents must be received no later than February 1 from applicants wishing to enter full-time studies in the Spring semester.

1.3 Procedure for Admission

1. Applications for admission to the MAcc program must be made on the appropriate form to the School of Graduate Studies.

2. The following documents must be submitted in support of the official application form:

a. letters of appraisal from two referees, at least one of whom is capable of appraising the applicant's academic potential as a graduate student;

b. official transcript from each university or other post-secondary institution previously attended (other than Memorial University of Newfoundland), to be sent directly by its Registrar (or equivalent officer) to the School of Graduate Studies. If not recorded on the transcript, official evidence of completion of undergraduate degree must also be submitted;

c. the Faculty of Business Administration's Statement of Intent Form;

d. the applicant's resume; and

e. where applicable, an official TOEFL or IELTS score report to be forwarded directly by the educational testing service.

3. Admission shall be by the Dean of the School of Graduate Studies on the recommendation of the Faculty of Business Administration. Upon notification from the Dean of the School of Graduate Studies of acceptance into the MAcc program, an applicant must give written notice to the School of Graduate Studies of the intention to register. Such notice must be received by the Office of the Dean within 30 days of notification of acceptance, or three weeks prior to semester registration.

1.4 Program of Study

This program requires 30 credit-hours as specified below. Students admitted as full-time students must normally complete their degree requirements within four terms after the date of initial registration.

1.4.1 Intersession (7.5 credit-hours)

- Business 8601 Advanced Concepts I (3 credit hours)
- Business 8602 Advanced Concepts II (3 credit hours)
- Business 8603 Strategy for Professional Accountants (1.5 credit hours)

1.4.2 Summer Semester (7.5 credit-hours)

- Business 8604 Advanced Taxation (3 credit hours)

- Business 8605 Data Analytics for Professional Accountants (1.5 credit hours)
- Business 8606 Advanced Finance (3 credit hours)

1.4.3 Fall Semester (4.5 credit-hours)

- Business 8607 Professional Accounting Cases I (1.5 credit hours)
- Business 8608 Performance Management (3 credit hours)

1.4.4 Intersession (7.5 credit-hours)

- Business 8609 Advanced Assurance (3 credit hours)
- Business 8610 Advanced Integration I (3 credit hours)
- Business 8612 Professional Accounting Cases II (1.5 credit hours)

1.4.5 Summer Semester (3 credit-hours)

- Business 8611 Advanced Integration II (3 credit hours)

1.5 Evaluation

1. Credit towards the MAcc Degree will be granted only for those courses which have been approved as constituting part of the student's program of study and in which the student has obtained a mark of 70% or higher.

2. A student is required to withdraw from the MAcc program if the student has obtained less than a 70% in any course or has received a grade of FAL (fail) in any course within the Academic year.

Courses

BUSI 8601 Advanced Concepts I

BUSI 8604 Advanced Taxation

BUSI 8605 Data Analytics for Professional Accountants

BUSI 8609 Advanced Assurance

BUSI 8603 Strategy for Professional Accountants

BUSI 8607 Professional Accounting Cases I

BUSI 8606 Advanced Finance

BUSI 8608 Performance Management

BUSI 8610 Advanced Integration I

BUSI 8611 Advanced Integration II

BUSI 8612 Professional Accounting Cases II”

Following a lengthy discussion the motion was carried by majority vote.

70. Report of the Senate Committee on Undergraduate Studies

70.1 Page 112, 2021-2022 University Calendar under heading 6.2 Computer Engineering Regulations add the following new section:

“6.2.2 Minor in Computer Engineering (Software)

A student in an Engineering degree program at the University, except Computer Engineering, may apply to the Department of Electrical and Computer Engineering for admission to the Minor in Computer Engineering (Software). The Minor is focused on Computer Engineering aspects such as programming, software design, and related applications. Before applying for the Minor, a student must complete the necessary prerequisites to register for ECE 3400 and ECE 4110 (or Mathematics 2320).

The Minor in Computer Engineering (Software) will consist of 24 credit hours, as follows:

1. ECE 3400, ECE 4110 (or Mathematics 2320), ECE 4400, ECE 5010, ECE 5400, ECE 6400, and
2. 6 credit hours chosen from: ECE 7400, ECE 7410, ECE 7420, ECE 8410, ECE 8420, or other courses subject to approval by the Head of the Department of Electrical and Computer Engineering.”

Page 125, 2021-2022 University Calendar under the heading 11.3 Electrical and Computer Engineering amend as follows:

“4110 Discrete Mathematics for Computer Engineering (same as the former ENGI 4424) is …
CR: Computer Science 1002, the former Computer Science 2740, the former ENGI 3422, the former ENGI 4424, Mathematics 2320
OR: tutorial 1 hour per week
PR: Mathematics 1001 or Mathematics 2050”

“4400 Data Structures (same as the former ENGI 4892) examines ..
CO: ECE 4110 or Mathematics 2320 or the former ENGI 4424
CR: the former ENGI 4892
OR: tutorial 1 hour per week
PR: ECE 3400 or the former ENGI 3891”

“7400 Concurrent Programming (same as the former ENGI 7894) …
CR: the former ENGI 7894, the former ENGI 8893
PR: ECE 5400 or the former ENGI 5892 or the former ENGI 6892”

“7420 Computer Security (same as the former ENGI 7864) …

CR: the former ENGI 7864
PR: ECE 5010 or the former ENGI 5895, ECE 5400 or the former ENGI 5892 or the former ENGI 6892"

"8400 Real-time Operating Systems (same as the former ENGI 8894) …

CR: Computer Science 4721, the former ENGI 7863, the former ENGI 8894
LH: four 3- hour sessions per semester
PR: ECE 6500 or the former ENGI 6861, ECE 7400 or the former ENGI 7894"

"8420 Cryptography (same as the former ENGI 8868) …
CR: the former ENGI 8868
PR: ECE 5400 or the former ENGI 5892 or the former ENGI 6892"

70.2 Page 104, 2021-2022 University Calendar immediately prior to the heading 1 Memorial University of Newfoundland Code, amend the third line as follows:

"… Naterer,… Mechanical and Mechatronics Engineering"

Under the sub-heading 3 Faculty Description amend as follows**:**

"The Faculty …, Mechanical and Mechatronics Engineering, …"

Under heading 6 Program Regulations under sub-heading 6.1.1 Civil Engineering Major in Table 1 Civil Engineering Major, replace all instances of "Mechanical Engineering" with "Mechanical and Mechatronics Engineering".

Under sub-heading 6.2 Computer Engineering Program Regulations in Table 2 Computer Engineering Major replace all instances of "Mechanical Engineering" with "Mechanical and Mechatronics Engineering".

Under heading 6.3 Electrical Engineering Program Regulations in Table 3 Electrical Engineering Major replace all instances of "Mechanical Engineering" with "Mechanical and Mechatronics Engineering".

Under heading 6.4 Mechanical Engineering Program Regulations in Table 4 Mechanical Engineering Major replace all instances of "Mechanical Engineering" with "Mechanical and Mechatronics Engineering".

Under sub-heading 6.4.1.1 Technical Streams amend as follows:

"…

- A student must choose one course in Academic Term 7 and two courses in Academic Term 8 according to the student's stream from the Technical Stream Elective Courses Table or other courses as approved by the Head of the Department of Mechanical and Mechatronics Engineering.

- The selection of a course as a technical stream course from outside these lists requires the approval of the Head of the Department of Mechanical and Mechatronics Engineering."

Renumber 6.5 Ocean and Naval Architectural Engineering Program Regulations as "6.6" and renumber subsections accordingly.

In the newly renumbered "Table 6 Ocean and Naval Architectural Engineering Major replace all instances of "Mechanical Engineering" with "Mechanical and Mechatronics Engineering".

Renumber 6.6 Process Engineering Program Regulations as "6.7" and renumber subsections accordingly.

In the newly renumbered "Table 7 Process Engineering Major replace all instances of "Mechanical Engineering" with "Mechanical and Mechatronics Engineering".

Renumber 6.6.1 Technical Streams as 6.7.1. and renumber subsections accordingly.

In the Table Process Technical Stream replace all instances of "Mechanical Engineering" with "Mechanical and Mechatronics Engineering"

Under the new renumbered sub-heading 6.7.2 Minor in Applied Science- Process Engineering for Chemistry Majors and Honours replace all instances of "Mechanical Engineering" with "Mechanical and Mechatronics Engineering".

Page 129, 2021-2022 University Calendar rename heading 11.5 Mechanical Engineering to "Mechanical and Mechatronics Engineering"

Amend as follows:

"Mechanical and Mechatronics Engineering …

Non departmental Engineering courses are designated by ENGI.

Mechanical and Mechatronics Engineering courses are designated by ME."

Page 122 under the heading 11 Course Descriptions replace all instances of "Mechanical Engineering" with "Mechanical and Mechatronics Engineering" in the following courses:

4310 Mechanics of Solids !
5110 Fluid Mechanics
8580 Subsea Pipeline Engineering
8152 Engineering Professionalism II
8900-8999 Special Topics in Mechanical Engineering

5034 Marine Vibrations
6036 Dynamics of Ocean Vehicles
6046 Marine Engineering Systems
6055 Marine Cybernetics
8074 Arctic Ocean Engineering
4002 Process Engineering Thermodynamics
4025 Process Engineering Calculations
5002 Process and Heat Transfer
6031 Chemical Reaction Engineering
6061 Process and Fluid Dynamics II

70.3. Faculty of Humanities and Social Sciences

Following a discussion, adoption of the program moved by Dr. Craig, seconded by Dr. Haghiri and carried that the new program "Minor in Criminology" by approved as outlined in the background documentation and as follows:

Page 333, 2021-2022 University Calendar under the heading 15.18.2 Programs in Sociology amend the first paragraph as follows:

"The following undergraduate programs are available in the Department:

1. Major in Criminology
2. Major in Sociology
3. Minor in Criminology
4. Minor in Sociology …

Insert the following new program:

"**15.18.5 Minor in Criminology**

1. For a Minor in Criminology, students must complete at least 27 credit hours in Criminology and other designated courses from relevant disciplines as follows:
   a. Sociology 1000 (or the former Sociology 2000);
      Criminology 1001 or Sociology 1001 (or the former Sociology/Police Studies 2300);
      Law and Society 1000;
      Criminology 3290 or Sociology 3290; and
      Criminology 3395 or Sociology 3395 (or the former Police Studies 3395).
   b. Any one of Sociology 3040; Sociology 3041; Political Science 3010; or Statistics 2500.
   c. At least 3 credit hours at the 2000-level chosen from the following courses: Criminology 2200, Criminology 2400, Sociology 2100, Sociology/Criminology 2208, Psychology 2150, Psychology 2800, or Archaeology 2492; or other courses approved by the Criminology

Undergraduate Program Director as listed in Table 1 Elective Courses for the Minor in Criminology.

d. At least 3 credit hours at the 3000-level chosen from the following courses: Criminology/Sociology 3000, Criminology/Sociology 3100 (formerly Police Studies 3100), Criminology/Sociology 3306, Criminology/Sociology 3500, Psychology 3640, or Political Science 3620 or other courses approved by the Criminology Undergraduate Program Director as listed in Table 1 Elective Courses for the Minor in Criminology.
e. At least 3 credit hours at the 4000 level chosen from the following courses: Criminology 4000, Criminology 4001, Sociology/Criminology 4099, Sociology 4210, Sociology/Criminology 4212 or other courses approved by the Criminology Undergraduate Program Director as listed in Table 1 Elective Courses for the Minor in Criminology.

2. Credit hours in a course cannot be used to fulfill the requirements of both a Major and a Minor program, or the program requirements of all three of a Major or Minor, diploma, and Certificate.

Table 1 Elective Courses for the Minor in Criminology (CRIM)

Level	Courses
2000	Criminology 2200 Sociology 2100 Sociology/Criminology 2208 Criminology 2400 Law and Society 2000 Anthropology 2414 History 2800 Psychology 2150 Psychology 2800 Archaeology 2492
3000	Criminology/Sociology 3000 Criminology/Sociology 3100 (formerly Police Studies 3100) Criminology/Sociology 3306 Criminology/Sociology 3500 Sociology 3180 Law and Society 3012 Law and Society 3400 Psychology 3640 Political Science 3620
4000	Criminology 4000 Criminology 4001

	Criminology/Sociology 4080 Criminology/Sociology 4099 Sociology 4210 Sociology/Criminology 4212

“

Renumber sections “15.18.5” up to “15.18.12” as “15.18.6” to “15.18.13” respectively.

70.4. Faculty of Science

Page 487, 2021-2022 Univeristy Calendar under the heading 11.4 Computer Science insert the following new program:

“17 Major in Computer Science (Data-centric Computing)(BSc only)”

Immediately following sub-heading 11.4.5 Major in Computer Science (Visual Computing and Games) (B.Sc only) insert the new section as follows:

“11.4.6 Major in Computer Science (Data-centric Computing) (B.Sc. only)

As a component of the Degree Regulations for the General Degree of Bachelor of Science a student must successfully complete the following courses:

1. Forty-five credit hours in Computer Science courses are required for a major in Computer Science (Data-centric Computing):

    a. Computer Science 1001, 1002, 1003, 2001, 2002, 2003, 2004, 2005, 2006, 2007, and 2008;

    b. Computer Science 3202, 3400, 3401 and 4304; and

    c. Six additional credit hours in Computer Science courses selected from Computer Science 4550, 4734, 4750, 4754, 4820. Some of these courses require the completion of prerequisites that are not themselves part of the major.

2. Additional courses required are: Mathematics 1000, 1001, 2000, 2050, and Statistics 2500 or 2550.

    It is recommended, but not required, that students take Business 4720.”

    Renumber remaining sections accordingly.

Page 293, 2021-2022 under the heading 15.4 Computer Science add the following:

"17. major in Computer Science (Data-centric Computing) (B.Sc.only)"

71. Page 34, 2021-2022 University Calendar under heading 6.9 Grading delete 6.9.1 Letter Grades, Numeric Grades and Points Per Credit Hour in its entirety and replace with the following:

"6.9.1 Grading Systems:

1. For each course, an academic unit may choose to use a numeric grading system, a pass/fail grading system, or both.

a. When a grade is to be numeric, its integer value between 0% and 100% shall be Registrar. The corresponding letter grades, and the points awarded for each credit hour, are asf ollows:

Numeric Grade	**Letter Grade**	**Points Per Credit Hour**
80–100%	A	4
65–79%	B	3
55-64%	C	2
50-54%	D	1
0-49%	F	0

An explanation of each of these letter grades can be found under **6.9.2 Descriptions of Letter Grades Which Correspond to Numeric Grades** .

b. When a grade is to indicate only whether a student passed or failed a course, one of the following letter grades shall be submitted to the Registrar, for which no points shall be applicable:

Result	Letter Grade	Description
Pass	PAS	indicates that performance met or exceeded expectations; credit is awarded successful completion of the course
Fail	FAL	indicates that performance was below expectations; no credit i l completion of the course

c. In a work term course, the following letter grade may instead be submitted to the Registrar, for which no points shall be applicable:

Result	**Letter Grade**	**Description**

Pass With Distinction	PWD	indicates that performance significantly exceeded expectations; credit is awarded for the successful completion of the course

2. The use of a grading system other than those described above, including the use of the Pass With Distinction letter grade in a course which is not a work term course, requires the approval of the University Senate.

3. Where circumstances warrant, and in accordance with the relevant University regulations, a student may be assigned one of the following letter grades, for which no points shall be applicable:

Result	**Letter Grade**	**Description**
Incomplete	INC	grade cannot be determined until the student has completed additional course requirements; see **6.9.5 Incomplete Grades**
Absent	ABS	grade cannot be determined until the student has written a deferred final examination; see **6.8.2 Exemptions From Final Examinations and Procedures for Applying to Write Deferred Examinations**
Drop	DR	student has dropped the course without academic prejudice; see **6.5.7.2 Droppin Courses Without Academic Prejudice**
Drop under Exceptional Circumstances	DEX	student has been permitted to retroactively drop the course without academic prejudice; see **Courses Retroactively**
Aegrotat	AEG	student has been granted a tatus; see **6.9.7 Aegrotat Status**

4. The grading system to be used in a course, including the option to choose between multiple grading systems, is at the discretion of the academic unit, and cannot be appealed by a student.

5. When an academic unit offers a choice of grading systems where only one is numeric, students are encouraged to consult with an academic advisor before declaring their choice, as this decision may have implications for program admissions, scholarships, and other matters of an academic nature.

6. Should any dispute or uncertainty arise in the application of the method of evaluation to determine a student's grade in a course, or in a student's choice of grading system when this option has been provided, the final authority to make grading decisions rests with the Dean of the appropriate Faculty/School or the Vice-President of the Marine Institute, in consultation with the course instructor and the head of the appropriate academic unit."

Rename sub-heading 6.9.2 Descriptions of Letter Grades as follows:

"6.9.2 Descriptions of Letter Grades Which Correspond to Numeric Grades"

72. Department of Mechanical and Mechatronics Engineering- Proposed new name change

Senate was advised that this item was not ready for consideration at today's meeting and would be tabled at a future date.

73. February 2022- Candidates for In-Absentia Graduation

The University Registrar presented Senate with a list of candidates for the February In-Absentia Graduation

Madame Chancellor, In the name of the Senate of the University, I present to you the candidates for the undergraduate and graduate degrees, diplomas and certificates approved for this session of convocation. I certify to the Senate that these candidates have fulfilled all the requirements pertaining to the appropriate credential and therefore request that you admit them thereto.

Dr. Susan Dyer-Knight, Chancellor addressed Senate to recognize the candidates for undergraduate and graduate degrees, diplomas and certificates approved for this session of convocation.

On the authority of the Senate, I as Chancellor, now admit the candidates to these degrees, diplomas, and certificates and confer upon them all the rights, privileges and responsibilities which belong thereto.

74. ADJOURNMENT

Meeting adjourned at 6 p.m.

CHAIR

SECRETARY