

Meeting Date: Friday, November 6, 2020

Location: Zoom Meeting

Time: 9:00 a.m.

AGENDA

1. Approval of the Agenda
2. Approval of the Minutes from October 9 , 2020 – circulated with Agenda
3. Business Arising from the Minutes
4. Reports from Enrolment Services and Faculties
 - 4.1 [Faculty of Engineering and Applied Science](#), pages 2-11
 - 4.2 [La Cité universitaire francophone](#), pages 12-14
 - 4.3 [Registrar's Office](#), page 14 and Appendix A
5. Adjournment

4. Reports from Faculties and Other Academic Units

4.1 Faculty of Engineering and Applied Science

ITEMS FOR APPROVAL

The Faculty of Engineering and Applied Science submits to CCUAS the following motions for approval.

4.1.1 ENVIRONMENTAL SYSTEMS ENGINEERING (EVSE) PROGRAM REVISION

MOTION: To replace ENGG 330 with ENEV 322 in Term 5 as indicated in the template below, **effective 202120.**

Credit hours	BASc in Environmental Systems Engineering Required Courses
Term 1 (Fall)	
3.0	CHEM 104
3.0	ENGG 123
3.0	ENGG 140
3.0	MATH 110
3.0	MATH 122
Term 2 (Winter)	
3.0	CS 110
3.0	ENGG 100
3.0	ENGL 100
3.0	MATH 111
3.0	PHYS 119
Term 3 (Fall)	
3.0	CHEM 140
3.0	ENEV 223
3.0	ENEV 372
3.0	ENGG 141
3.0	GEOL 102
Term 4 (Winter, Spring/Summer)	
3.0	ECON 201
3.0	ENIN 241
3.0	*Social Sciences and Humanities Elective
3.0	MATH 213
3.0	STAT 289
Term 5 (Fall)	
3.0	BIOL 223
3.0	ENEV 261
3.0	ENEV 321
3.0	ENGG 330 ENEV 322
3.0	*Approved Elective
Term 6 (Spring/Summer)	
3.0	ENEV 281
3.0	ENEV 334
3.0	ENEV 384
3.0	ENEV 480

Credit hours	BASc in Environmental Systems Engineering Required Courses
3.0	ENIN 253
Term 7 (Winter)	
3.0	ENEV 360
3.0	ENEV 421
3.0	ENEV 422
3.0	ENEV 440
3.0	ENEV 462
Term 8 (Fall)	
3.0	ENEV 363
3.0	ENEV 383
1.0	ENEV 400
3.0	ENEV 435
3.0	ENGG 303
3.0	*Approved Elective
Term 9 (Winter)	
3.0	ENEV 415
3.0	ENEV 469
3.0	ENGG 401
3.0	*Approved Elective
3.0	*Approved Elective
136.0	TOTAL
<p>* Approved Electives (these electives may not be offered regularly): Choose at least three from the following: ENEV 408, ENEV 445, ENEV 463, ENEV 465, ENEV 475, ENEV 484, ENGG 411, ENIN 350, ENIN 453, ENIN 455, ENPE 490 Note: ENEV 475 and ENEV 484 run alternating years in the Fall term.</p>	
<p>Choose at most one from the following: BUS 260, BUS 302, ENEL 280</p>	
<p>Social Sciences and Humanities elective: choose one Faculty of Arts or La Cité course.</p>	

Rationale:

- EVSE students take STAT 289 which includes some numerical analysis. Students are currently taking numerical analysis in the revised ENEV 334 (Simulation and Decision Making for Engineers). These two courses combined can provide equivalent content to ENGG 330.
- ENEV 322 is a course on the application of microbiology to water treatment and solid waste. ENEV 322 is being added to the program slot with BIOL 223, which is an introduction of microbiology to human society. Our students take CHEM 140 (Term 3) to learn the general chemistry and take ENEV 321 and ENEV 363 (Term 8) for water treatment in the following terms. Without the approval, we have no slot to have ENEV 322 in the system.
- The replacement of ENGG 330 has no impact on the pre-requisite of other courses.
- ENEV 322 is mainly engineering science and design. We will add GA to ENEV 322 when the initial mapping is completed. The course can increase the Design count in EVSE. It has no impact to AU counts. We will move some GAs from ENGG 330 to ENEV 334 as well.

(End of Motion)

4.2.1 ELECTRONIC SYSTEMS ENGINEERING (ESE) PROGRAM REVISIONS

MOTION: To update the ESE program as indicated in the template below, **effective 202120.**

Bachelor of Applied Science in Electronic Systems Engineering (ESE)

Electronic Systems Engineering applies skills in electronics and computers to the design and operation of products or systems for handling information. Such systems include modern telecommunications, industrial controls and electronic consumer products.

Credit hours	BASc in Electronic Systems Engineering Required Courses
Term 1 (Fall)	
3.0	CHEM 104
3.0	ENGG 123
3.0	MATH 122
3.0	ENGG 140
3.0	MATH 110
Term 2 (Winter)	
3.0	CS 110
3.0	ENGG 100
3.0	ENGL 100
3.0	MATH 111
3.0	PHYS 119
Term 3 (Fall)	
3.0	CS115
3.0	ENEL 280
3.0	ENEV 223
3.0	MATH 217
3.0	PHYS 112
Term 4 (Winter, Spring/Summer)	
3.0	CS 210
3.0	ENEL 281
3.0	ENEL 282
3.0	MATH 213
3.0	STAT 289
Term 5 (Fall)	
3.0	BUS 260
3.0	ENEL 383
3.0	ENEL 384
3.0	ENSE 352
3.0	PHYS 201
Term 6 (Spring/Summer)	
3.0	BUS Elective (BUS 210, 250, 285, or 302)
3.0	CS 335
3.0	ECON 201
3.0	ENEL 380 ENEL 361
3.0	ENEL 390 ENEL 341
Term 7 (Winter)	
3.0	ENEL 371
3.0	ENEL 387 ENEL 351
3.0	ENSE 350
3.0	* Approved Elective
3.0	* Approved Elective
Term 8 (Fall)	
1.0	ENEL 400
3.0	ENGG 303
3.0	*Approved Elective

Credit hours	BASc in Electronic Systems Engineering Required Courses
3.0	*Approved Elective
3.0	*Approved Elective
3.0	*Approved Elective
Term 9 (Winter)	
3.0	EDEL 417
3.0	ENGG 401
3.0	*Approved Elective
3.0	*Approved Elective
3.0	*Approved Elective
136.0	TOTAL
<p>* Approved Electives Choose electives from one of the following streams: Communications: ENEL 393 442, ENEL 492 443 and five courses from the approved list below. Micro-Electronics: ENEL 487 452, ENEL 489 453 and five courses from the approved list below. Control Systems: ENEL 389 462, ENEL 484 463 and five courses from the approved list below. Power: ENEL 472, ENEL 482 473 and five courses from the approved list below.</p>	
<p>Approved List:</p> <p>Technical Electives: ENEL 389 462, ENEL 393 442, ENEL 395, ENEL 472, ENEL 482 473, ENEL 484 463, ENEL 487 452, ENEL 489 453, ENEL 492 443, ENEL 494, ENEL 495, ENEV 261, ENIN 253, ENSE 481</p> <p>Software Electives (may choose one): CS 215, CS 330, CS 340, CS 350, CS 372, CS 375 or any ENSE class except ENSE 477.</p> <p>Risk and Industrial Safety Electives (may choose one): ENEV 334, ENGG 411, ENIN 433, ENIN 440.</p>	
<p>Social Sciences and Humanities elective: choose <u>one</u> Faculty of Arts or La Cité course.</p>	
<p>Natural Science Elective (choose one): from astronomy, biochemistry, biology, chemistry, geology, and physics. (CHEM 100 not permitted)</p>	

Rationale: With these changes; 1) all courses in the Control Systems stream will have numbers in a sequence: 361, 462, and 463. ENEL 361 is the first course of the stream offered in Term 6. ENEL 462 and ENEL 463 are offered in Term 8 and Term 9, respectively, 2) all courses in the Micro- Electronics stream will have numbers in a sequence: 351, 452, and 453. ENEL 351 is the first course of the stream offered in Term 7. ENEL 452 and ENEL 453 are offered in Term 8 and Term 9, respectively, 3) all courses in the Communications stream will have numbers in a sequence: 341, 442, and 443. ENEL 341 is the first course of the stream offered in Term 6. ENEL 442 and ENEL 443 are offered in Term 8 and Term 9, respectively, and 4) all courses in the Power stream will have numbers in a sequence: 371, 472, and 473. ENEL 371 is the first course of the stream offered in Term 7. ENEL 472 and ENEL 473 are offered in Term 8 and Term 9, respectively.

(End of Motion)

4.1.3 ENGINEERING MINORS REVISIONS

MOTION: To update all Engineering minors, based on Software Systems and Electronic Systems course renumbering, as indicated in the templates below, **effective 202120.**

Communications Stream Engineering Minor

Credit hours	Communications stream Engineering Minor Required Courses
3.0	ENEL 390 ENEL 341
3.0	ENEL 393 ENEL 442
3.0	ENEL 492 ENEL 443
6.0	Any two approved ENEL Courses
15.0	TOTAL

Micro-electronics Stream Engineering Minor

Credit hours	Micro-electronics Stream Engineering Minor Required Courses
3.0	ENEL 387 ENEL 351
3.0	ENEL 487 ENEL 452
3.0	ENEL 489 ENEL 453
6.0	Any two approved ENEL courses
15.0	TOTAL

Instrumentation and Control Stream Engineering Minor

Credit hours	Instrumentation and Control Stream Engineering Minor Required Courses
3.0	ENEL 380 ENEL 361
3.0	ENEL 389 ENEL 462
3.0	ENEL 484 ENEL 463
6.0	Any two approved ENEL courses
15.0	TOTAL

Power Stream Engineering Minor

Credit hours	Power Stream Engineering Minor Required Courses
3.0	ENEL 371
3.0	ENEL 472
3.0	ENEL 482 ENEL 473
6.0	Any two approved ENEL courses
15.0	TOTAL

Manufacturing Engineering Minor

Credit hours	Manufacturing Engineering Minor Required Courses
15.0	Five of: ENIN 349, ENIN 350, ENIN 445, ENIN 448, ENEL 389 ENEL 462 , ENEL 484 ENEL 463
15.0	TOTAL

Software Engineering Minor

Credit hours	Software Engineering Minor Required Courses
3.0	ENSE 374
3.0	ENSE 470- 370
6.0	Any two courses from ENSE 271 , 350, 352, 353, 375 474, 472-,475
3.0	Any listed ENSE course excluding ENSE 400 and 477
15.0	TOTAL

Rationale: These course numbers need to be updated to reflect the course number changes made by the Software Systems and Electronic Systems programs.

(End of Motion)

4.1.4 SOFTWARE SYSTEMS ENGINEERING (SSE) PROGRAM REVISIONS

MOTION: To update the SSE program based on the ENEL course number changes as indicated in the template below, **effective 202120**.

Credit hours	BASc in Software Systems Engineering Required Courses
Term 1 (Fall)	
3.0	CHEM 104
3.0	ENGG 123
3.0	ENGG 140
3.0	MATH 110
3.0	MATH 122
Term 2 (Winter)	
3.0	CS 110
3.0	ENGG 100
3.0	ENGL 100
3.0	MATH 111
3.0	PHYS 119
Term 3 (Fall)	
3.0	CS 115
3.0	ENEL 280
3.0	ENEV 223
3.0	MATH 217
3.0	PHYS 112
Term 4 (Winter, Spring/Summer)	
3.0	CS 210
3.0	ENSE 271
3.0	ENEL 282
3.0	MATH 213
3.0	STAT 289
Term 5 (Fall)	
3.0	CS 215
3.0	CS 340
3.0	ENEL 384
3.0	ENSE 352
3.0	ENSE 374
Term 6 (Spring/Summer)	
3.0	BUS 260
3.0	ECON 201
3.0	ENSE 375
3.0	ENSE 353
3.0	*Approved Elective
Term 7 (Winter)	
3.0	ENEL 387 <u>ENEL 351</u>
3.0	ENSE 370
3.0	ENSE 350
3.0	*Approved Elective
3.0	*Approved Elective

Credit hours	BASc in Software Systems Engineering Required Courses
Term 8 (Fall)	
3.0	ENGG 303
1.0	ENSE 400
3.0	ENSE 472
3.0	ENSE 487
3.0	*Approved Elective
3.0	*Approved Elective
Term 9 (Winter)	
3.0	ENGG 401
3.0	ENSE 477
3.0	*Approved Elective
3.0	*Approved Elective
3.0	*Approved Elective
136.0	Total
*Approved Technical Electives Four courses that are not included in the core SSE program course requirements. They must include a minimum of two ENSE 400-level courses. Eligible technical electives are any 300- or 400-level CS, ENEL, ENSE, and CTECH courses or other approved technical electives.	
Social Sciences and Humanities elective (one is required): Any Faculty of Arts or La Cité course.	
Natural Science Electives (two are required): from astronomy, biology, chemistry, geology, and physics. (CHEM 100 not permitted)	
Open Elective (one is required): Any three-credit hour course (CS 100 is not permitted).	

Rationale: This change reflects the new ENEL course numbers.

(End of Motion)

4.1.5 INDUSTRIAL SYSTEMS ENGINEERING (ISE) PROGRAM REVISIONS

MOTION: To update the ISE program as indicated in the template below, **effective 202120.**

Credit hours	BASc in Industrial Systems Engineering Required Courses
Term 1 (Fall)	
3.0	CHEM 104
3.0	ENGG 123
3.0	ENGG 140
3.0	MATH 110
3.0	MATH 122
Term 2 (Winter)	
3.0	CS 110
3.0	ENGG 100
3.0	ENGL 100
3.0	MATH 111
3.0	PHYS 119
Term 3 (Fall)	
3.0	ENEL 280
3.0	ENEV 223
3.0	ENGG 141
3.0	MATH 217
3.0	*Natural Science Elective
Term 4 (Winter, Spring/Summer)	
3.0	ENIN 233
3.0	ENIN 241
3.0	MATH 213

Credit hours	BASc in Industrial Systems Engineering Required Courses
3.0	STAT 289
3.0	CHEM 105
Term 5 (Fall)	
3.0	*Social Science and Humanities <u>or</u> * Natural Science Elective
3.0	ENEV 261
3.0	ENGG 330
3.0	ENIN 331
3.0	ENIN 343
Term 6 (Spring/Summer)	
3.0	BUS 260
3.0	ECON 201
3.0	ENEL 380 ENEL 361
3.0	ENIN 253
3.0	ENIN 350
Term 7 (Winter)	
3.0	ENIN 355
3.0	ENIN 430
3.0	ENIN 440
3.0	ENIN 453
3.0	*Approved Elective
Term 8 (Fall)	
3.0	BUS 250
3.0	ENGG 303
3.0	ENIN 340
3.0	ENIN 349
1.0	ENIN 400
3.0	ENIN 444
Term 9 (Winter)	
3.0	BUS 240, 285, 302 * Social Science and Humanities or * Natural Science Elective
3.0	ENGG 401
3.0	ENIN 413
3.0	ENIN 433
3.0	*Approved Elective
136.0	TOTAL
<p>*Approved Electives: Choose two: ENEL 389 462, ENEL 484 463, ENGG 411, ENIN 370, ENIN 445, ENIN 448, ENIN 455, ENIN 456, ENIN 463, offered as follows:</p> <ul style="list-style-type: none"> • ENIN 370: Winter Term • ENIN 445 and ENIN 456: Winter term in even-numbered years • ENIN 448 and ENIN 455: Winter term in odd-numbered years. 	
<p>Social Sciences and Humanities elective: choose one Faculty of Arts or La Cité course.</p>	
<p>*Natural Science Elective (choose one two): astronomy, biology, chemistry, geology, and physics. (CHEM100 not permitted)</p>	

Rationale: These changes reflect the new ENEL course numbers and because ISE needs to increase its natural science Accreditation Units (AUs) to meet a minimum of 195 AU's.

Current AU count: **178.3**.
Require **16.8** additional AUs.

With the addition of the natural science elective the New AU count: **216.3** which is 21 AUs above the minimum 195.

Notes: Complimentary Studies (CS) dropped but the AUs are still 118 above the minimum of 225

Accreditation Impact: At this time ISE is below the required AU count for Natural Science. This change

will put the program in compliance with the required AU count for Natural Science

(End of Motion)

4.1.6 PETROLEUM SYSTEMS ENGINEERING (PSE) PROGRAM REVISIONS

MOTION: To update the PSE electives list as indicated in the template below, **effective 202120.**

***Approved Electives:**

Minimum of two from: ENPE 340, ENPE 380, **ENPE 420, ENPE 425,**
ENPE 435, ENPE 448, ENPE 470, ENPE 475, ENPE 481, ENPE 490,
ENPE 491, ENPE 492

Minimum of two from: ENEV 422, ENIN 433, ENIN 453, ENIN 456

Social Sciences and Humanities elective: choose one Faculty of Arts
or La Cité course.

Rationale: This ensures students know the full scope of elective options available.

(End of Motion)

ITEMS FOR INFORMATION

The Faculty of Engineering and Applied Science submits the following course revisions for information, effective 202120:

I. Course Revisions

ENEL 361 ~~ENEL 380~~ Automation and Control

Programmable logic controllers, ladder logic, latches, timers, counters, flow control, and data handling instructions, sensors and actuators, state-based design. Open & closed loop systems, mathematical modeling, Laplace transform, block diagrams and signal flow graphs, design and analysis of feedback systems, stability analysis, root locus, PID controllers, frequency domain technique. ***Prerequisite: ENIN 233 or ENEL 281 and ENEL 280***

ENEL 351 ~~ENEL 387~~ Microcontroller System Design

Design of microcontroller systems, including interfacing analog and digital circuits, memory and peripheral devices, processor architecture, memory systems, exceptions, interrupt control, and exception programming. Students will build an integrated microcontroller system in their final lab project.

***Prerequisite: ENSE 352 and ENEL 384 ***

ENEL 462 ~~ENEL 389~~ Control Systems

This course extends student knowledge of continuous-time domain control systems. Topics include: a detailed examination of system response to various inputs, mechanisms to limit disturbance effects, use of root locus plotting to determine system gains for stability, system design to limit transient response (over-shoot, rise-time, settling-time), state-space representation of systems, multi-input/ multi-output system analysis, state-space based design.

Prerequisite: ~~ENEL 380~~ **ENEL 361**

ENEL 341 ~~ENEL 390~~ Communication Theory

An introduction to information theory and telecommunication signals and methods. Definition of information, time to frequency relations, application of Fourier series and the Fourier transform, types of modulation, theory of discrete sampling and the Nyquist sampling rate.

*** Prerequisite: ENEL 281 and MATH 217 **

ENEL 442 ~~ENEL 393~~ Digital Communications

Error rates, optimum decision levels, statistical decision theory, matched filters, narrowband noise, system performance, optimum binary transmission, M-ary orthogonal signals, Shannon capacity expression, coding for error detection and correction, repeater systems.

*** Prerequisite: ENEL 390 ENEL 341 ***

ENEL 473 ~~ENEL 482~~ Power Systems

Application of concepts to power delivery and industrial use. Topics include power system stability/power quality, power system specification, and analysis/design. Course involves at least one design Project. *** Prerequisite: ENEL 472 ***

ENEL 463 ~~ENEL 484~~ Digital Control System Design

This course is an introduction to digital control systems. Topics include: representing digital systems in the z-domain, difference equation representation of discrete-time systems, root locus plotting of discrete-time systems on the z-plane, discrete-time PID control, mapping between continuous-time systems and discrete-time systems, design using transform and state space methods, pure digital design, dead-beat systems.

Prerequisite: ENEL 389 ENEL 462

ENEL 452 ~~ENEL 487~~ Embedded and Real-Time Software Systems

Software design practices for resource-constrained targets. Students will design and implement a number of embedded components, culminating by integrating them into a full embedded system involving aspects of feedback control, signal processing, or communications. Topics: Architectures for real-time systems. Fundamentals of real-time operating systems. Software design. Interfacing and communications. Speed, memory, and power performance trade-offs. Testing. Dependability.

Prerequisite: ENEL 387 ENEL 351 and CS 210

ENEL 453 ~~ENEL 489~~ FPGA Design Using VHDL

Introduction to FPGA digital system design. Students will learn a high-level hardware design language (VHDL), the concurrent and sequential statements of VHDL, the principle and practice of combinational circuit design, the principle and practice of sequential circuit design, Finite State Machine, Register Transfer Methodology, the synthesis and implementation of digital design on a FPGA device. Advanced synchronous digital design techniques such as pipelining, parallelism, and caching. Students will develop a design and test it on an FPGA development board.

***Prerequisite: ENEL 384**

ENEL 443 ~~ENEL 492~~ Design of Computer Networks

Computer network fundamentals, network switching technologies, medium access control protocols, computer networks hierarchical design approaches, routing protocols and their design issues, LAN models and their design, internet technologies, quality of service, network traffic flow control and measurement, network security.

Prerequisite: ENEL 393 ENEL 442 and CS 335

ENEL 400 ESE Project Start-up

The main purpose of this course is to prepare students for their project design course, ENEL 417. Students form design teams. The teams will propose, develop, & present engineering design projects that they will pursue in ENEL 417. In addition, each project group will orally present their proposal to their colleagues. Issues of safety, feasibility, & engineering responsibility, will be considered in this course. ***Prerequisite: ENEL 371, ENEL 390 ENEL 341, ENEL 380 ENEL 361, ENEL 383 and ENEL 387 ENEL 351, and successful completion of 99 credit hours or permission of ESE Program Chair***

Note: This course is for students entering their final year only.

ENEL 417 ESE Design Project

Typically, a functional device or system, incorporating electronic hardware and/or software in a team design, is to be designed, implemented, and tested. A formal written report, a demonstration of the project and an oral presentation of the work are required. *** Prerequisite: ENEL 400 and ENEL 387 ENEL 351 ***

ENEL 495 Digital Signal Processing

Representation of signals and systems, Fourier analysis, time frequency spectrum, sampling and reconstruction of signals, aliasing, linearity and time-invariance, convolution, FIR filters, IIR filters, Z-transform, design and analysis of FIR and IIR filters, spectrum analysis using DFT/FFT, adaptive filters, simulation of DSP concepts using MATLAB/SIMULINK, hardware implementation of DSP applications. ***Prerequisite: ENEL 390 341***

ENEL 496AT Mobile Communication Systems

Overview of the modern trends in mobile communication systems, with emphasis in 4G cellular networks. Cellular technology principles, network architecture and planning, traffic models, access techniques, resource sharing, spectrum efficiency, and mobility management. Performance evaluation of cellular systems, radio resource management, and discussion of the future of cellular systems.***Prerequisite: ENEL ~~393~~ 442***

ENSE 452 ~~ENSE 487~~ Embedded and Real-Time Software Systems

Software design practices for resource-constrained targets. Students will design and implement a number of embedded components, culminating by integrating them into a full embedded system involving aspects of feedback control, signal processing, or communications. Topics: Architectures for real-time systems. Fundamentals of real-time operating systems. Software design. Interfacing and communications. Speed, memory, and power performance tradeoffs. Testing. Dependability. ***Prerequisite: ENEL ~~387~~ 351 and CS 210***

ENSE 481 Embedded Systems and Co-design

Embedded systems are increasingly common in modern systems design. This course will teach students how to take advantage of embedded systems technology in their system designs. Topics include: advanced microcontroller real-time design, co-design, embedded systems design issues, power considerations, and wireless considerations.

Prerequisite: ENEL ~~387~~ 351 and ENEL ~~487~~ 452

Rationale: to update numbers to match the changes made by the Electronic program.

ENSE 483

Digital Wireless Systems Wireless Internet of Things

~~This course provides the skills necessary to understand and use systems from the point of view of protocol, bandwidth, and spectrum allocation. Topics include spectrum allocation, digital modulation, spread spectrum communications fundamentals, digital radio protocols for modern wireless systems, working with CDPD, Bluetooth, and IEE 802.11a/b, interference and collision.~~

This course provides the skills necessary to understand the general architecture of IoT and the role of sensors, gateways, and the cloud in collecting, forwarding and processing data. The course focuses on modern wireless networking including Bluetooth, and IEE 802.11, interference, bandwidth, and middleware profiles and protocols

Prerequisite: ENSE 374

ENSE 472

Digital Networks

~~Introduction to information theory; network architectures and LAN implementation/configuration; network administration principles; communication protocols (i.e. TCP/IP stack); internet applications, wireless networks, physical lines (i.e. fibre, twisted pair, coax), network performance, troubleshooting and system security.~~

The course focus on digital networks, their architectures and communication protocols. The course covers the ISO/OSI, TCP/IP, and hybrid models. The course presents methods used on data-link/MAC layer, routing mechanisms complexities, and congestion control. ***Prerequisites: CS 215***

ENSE ~~496AD~~ 412

Machine Learning

Machine Learning is concerned with computer programs that automatically improve their performance through experience (e.g., programs that learn to recognize human faces, recommend music and movies, and drive autonomous robots). This course covers the theory and practical algorithms for machine learning from a variety of perspectives.

Prerequisite: Successful completion of 90 credit hours or permission of Program Chair

III. Historical Courses

ENGG 240 (202120)

Engineering Science I - Mechanics

Remove from the course catalogue and make historical as course is no longer being offered as of 201920.

End of Report from the Faculty of Engineering and Applied Science

4.2 Report from La Cité francophone universitaire

ITEM FOR INFORMATION

The following program translation in French was unanimously carried by La Cité Council on September 28, 2020 and is submitted for information to CCUAS.

Calendar Program Description translated to French - *Integrated Pathway in French and Francophone Intercultural Studies and Common Law*

Cheminement intégré en droit et études francophones et interculturelles -- Baccalauréat ès arts (BA) et Juris Doctor (JD)

En partenariat avec le Programme de Common law en français (PCLF) de l'Université d'Ottawa, La Cité offre le Cheminement intégré grâce auquel les étudiants, au terme de six ans d'études, obtiennent un BA en études francophones et interculturelles et un JD. Au cours des trois premières années, ils achèvent à l'Université de Regina 90 heures-crédits dont toutes les exigences de la majeure et les exigences de base du BA. Aux trois dernières années, alors inscrits au PCLF de l'Université d'Ottawa, ils devront achever 93 crédits et, une fois y avoir réussi la première année de droit, ils auront rempli les conditions les qualifiant à recevoir le diplôme BA. Au terme des trois années d'études au PCLF, les étudiants inscrits au Cheminement intégré se verront décerner le JD de l'Université d'Ottawa.

Conditions d'admission

Pour commencer, les postulants doivent satisfaire aux conditions d'admission de La Cité telles qu'elles sont énoncées dans la section Admissions du Calendrier. Une fois admis au Programme d'études francophones et interculturelles (PÉFI), les étudiants peuvent postuler au Cheminement intégré en se déclarant auprès du directeur associé de La Cité au plus tard le 1^{er} avril de leur première année d'études. Pour être admis au Cheminement intégré, les postulants doivent justifier d'une moyenne d'au moins 85 % dans leurs 6 cours du secondaire de niveau 30 (12^e année) les mieux notés, avoir achevé 30 heures-crédits au PÉFI et bénéficier d'une MPC d'au moins 80 % dans leurs études postsecondaires.

Exigences linguistiques

Les étudiants inscrits au Cheminement intégré doivent avoir acquis un minimum de 45 crédits en français au cours de leurs trois années d'études au PÉFI. L'Université d'Ottawa peut, à sa discrétion, exiger à ce que tout étudiant ayant terminé les trois premières années du Cheminement intégré subisse avec succès un examen de compétence linguistique en français, avant de l'admettre au PCLF.

Heures-crédits	Cheminement intégré en droit et études francophones et interculturelles -- Baccalauréat ès arts (BA) et Juris Doctor (JD)
Exigences de la majeure	
39.0	Mêmes que celles indiquées ci-dessus pour le BA en études francophones et interculturelles
Exigences de base	
27.0	Mêmes que celles indiquées ci-dessus pour le BA en études francophones et interculturelles
Options libres	
24.0	8 cours au choix
90.0*	Sous-total : une MPC d'au moins 80 % requise pour l'admission garantie au PCLF
Exigences des cours comptant pour le JD du PCLF à l'Université d'Ottawa	
93.0	Après avoir achevé 30 heures-crédits au PCLF avec une MPC d'au moins 60 %, l'étudiant peut demander à se voir décerner un BA (PÉFI).
183.0	

* Les étudiants doivent accumuler au moins 45 heures-crédits en français à l'Université de Regina.

Rationale: The Integrated Pathway in French and Francophone Intercultural Studies and Common Law, a new program partnership between La Cité and the University of Ottawa Faculty of Law, was approved by La Cité, CCUAS, EOC and finally the Senate in June 2020. Previously, only the English version of the program description was submitted to CCUAS. This French translation will now be added to complete the bilingual program description in the U of R Undergraduate Calendar.

(End of report from La Cité)

4.3 The Registrar's Office

The Registrar's Office submits the following item for approval to CCUAS.

ITEM FOR APPROVAL

4.3.1 UNDERGRADUATE CREDENTIAL FRAMEWORK

<p>MOTION: To approve the Undergraduate Credential Framework as presented in Appendix A, effective 202120.</p>
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Rationale: The need for a credential framework at the University of Regina has been identified as a quality assurance measure that will guide the development of new academic programs and align the university with a more common understanding of the academic rigor required to complete and be awarded a credential. It provides reassurance to academic colleagues, licensure organizations, qualification agencies, and employers that they can be confident a credential has been awarded with common and consistent standards that are broadly recognized.

5. Adjournment