

EXECUTIVE OF COUNCIL

Date: 17 November 2022
To: Executive of Council
From: Glenys Sylvestre, Executive Director (University Governance) and University Secretary
Re: Meeting of 23 November 2022

A meeting of Executive of Council is scheduled for 23 November 2022, 2:30-4:30 p.m. in the Administration Humanities Building, Room 527 (AH 527) and via web conferencing (Zoom). As per Section 4.6.2 of the Council Rules and Regulations, meetings shall be closed except to persons invited to attend and members of Council who choose to attend as guests.

AGENDA

1. **Approval of the Agenda**
2. **Approval of the Minutes of Meeting 26 October 2022 - circulated with the Agenda**
3. **Business Arising from the Minutes**
4. **Remarks from the Chair**
5. **Report from the University Secretary**
6. **Reports from Committees of Council**
 - 6.1 Council Committee on the Faculty of Graduate Studies and Research and the Council Committee on Undergraduate Admissions and Studies, Appendix I, p. 2-4
 - 6.2 Council Committee on the Faculty of Graduate Studies and Research, Appendix II, pp. 5-27
 - 6.3 Council Committee on Undergraduate Admissions and Studies, Appendix III, pp. 28-34
7. **Graduand Lists**
 - 7.1 Graduand Lists for Approval - Omnibus Motion - *distributed confidentially*
 - 7.1.1 Faculty of Education
 - 7.1.2 Faculty of Graduate Studies and Research
 - 7.1.3 Centre for Continuing Education
8. **Other Business**
 - 8.1 Sustainability Action Plan, *For Information*, Appendix IV, pp. 35-59
9. **Adjournment**

**REPORT TO EXECUTIVE OF COUNCIL FROM THE COUNCIL COMMITTEE ON THE
FACULTY OF GRADUATE STUDIES AND RESEARCH AND THE COUNCIL
COMMITTEE ON UNDERGRADUATE ADMISSIONS AND STUDIES
23 NOVEMBER 2022**

ITEM(S) FOR APPROVAL:

1. 2024-2025 Academic Schedule

MOTION: To approve the 2024-2025 Academic Schedule.
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Rationale:

The Academic Schedule is being brought forward for approval and is included as Attachment A. The Other Important Dates chart is included as an item for information and is included as Attachment B.

The Academic Schedule was presented for approval at the November 1, 2022 Council Committee on Undergraduate Admissions and Studies (CCUAS) meeting and at the November 8, 2022 Council Committee on the Faculty of Graduate Studies and Research (CCFGSR) meeting.

Note for Executive of Council: As a result of the statutory holidays in 2024, there will only be 10 teaching Mondays in the term. If an instructor has concerns about the limited Mondays, they are to speak with the Associate Dean responsible for course scheduling as the Registrar's Office has proposed alternate options for instructors.

(end of Motion)



2024-2025 Academic Schedule

Term Information:	Spring/Summer 2024								Fall 2024	Winter 2025
Part of term (POT):	1	2	3	4	5	6	7	10	1	1
Held in:	May-Aug	May	June	May-June	July	August	July-Aug	May-Aug	Sep-Dec	Jan-Apr
Start of term	6-May-24	6-May-24	3-Jun-24	6-May-24	2-Jul-24	6-Aug-24	2-Jul-24	6-May-24	4-Sep-24	6-Jan-25
End of term	29-Aug-24	29-Aug-24	29-Aug-24	29-Aug-24	29-Aug-24	29-Aug-24	29-Aug-24	29-Aug-24	21-Dec-24	26-Apr-25
Class Dates										
Start of classes	6-May-24	6-May-24	3-Jun-24	6-May-24	2-Jul-24	6-Aug-24	2-Jul-24	6-May-24	4-Sep-24	6-Jan-25
End of classes	21-Aug-24	28-May-24	24-Jun-24	19-Jun-24	23-Jul-24	27-Aug-24	15-Aug-24	1-Aug-24	6-Dec-24	11-Apr-25
Examination Dates										
Start of examination period	24-Aug-24	30-May-24	27-Jun-24	22-Jun-24	25-Jul-24	29-Aug-24	19-Aug-24	3-Aug-24	9-Dec-24	14-Apr-25
End of examination period	27-Aug-24	30-May-24	27-Jun-24	26-Jun-24	25-Jul-24	29-Aug-24	22-Aug-24	9-Aug-24	21-Dec-24	26-Apr-25
Tuition and Fee Payment Dates										
Due date for tuition and fee payment	6-May-24	6-May-24	3-Jun-24	6-May-24	2-Jul-24	6-Aug-24	2-Jul-24	6-May-24	17-Sep-24	6-Jan-25
End of penalty-free payment period	10-Jun-24	31-May-24	28-Jun-24	31-May-24	31-Jul-24	30-Aug-24	31-Jul-24	31-May-24	1-Oct-24	17-Mar-25
Class Add/Drop Dates										
End course-add period	22-May-24	7-May-24	4-Jun-24	9-May-24	3-Jul-24	7-Aug-24	8-Jul-24	17-May-24	17-Sep-24	17-Jan-25
End of no-record drop period	22-May-24	7-May-24	4-Jun-24	9-May-24	3-Jul-24	7-Aug-24	8-Jul-24	17-May-24	17-Sep-24	17-Jan-25
End of grade-of-W drop period	18-Jul-24	21-May-24	17-Jun-24	5-Jun-24	16-Jul-24	20-Aug-24	31-Jul-24	5-Jul-24	15-Nov-24	17-Mar-25
Tuition and Fee Refund Dates										
End of 100% refund period	22-May-24	7-May-24	4-Jun-24	9-May-24	3-Jul-24	7-Aug-24	8-Jul-24	17-May-24	17-Sep-24	17-Jan-25
End of 50% refund period	10-Jun-24	9-May-24	6-Jun-24	16-May-24	8-Jul-24	12-Aug-24	15-Jul-24	31-May-24	2-Oct-24	31-Jan-25

Other Important Dates and Deadlines	Spring/Summer 2024	Fall 2024	Winter 2025
Victoria Day - No classes (Most university offices closed)	20-May-24		
Spring 2024 Convocation	June 12, 13, & 14, 2024		
Canada Day - No classes (Most university offices closed)	1-Jul-24		
Last day to apply to graduate for Fall 2024 Convocation	31-Jul-24		
Saskatchewan Day - No classes (Most university offices closed)	5-Aug-24		
Labour Day - No classes (Most university offices closed)		2-Sep-24	
Undergraduate Student Orientation		3-Sep-24	
National Day for Truth and Reconciliation - No classes (Most university offices closed)		30-Sep-24	
Thanksgiving Day - No classes (Most university offices closed)		14-Oct-24	
Fall Reading Week start (Monday)		14-Oct-24	
Fall Reading Week end (Saturday)		19-Oct-24	
Fall 2024 Convocation		18-Oct-24	
Remembrance Day - No classes (Most university offices closed)		11-Nov-24	
Faculty and Admin Offices close at 12 noon.		24-Dec-24	
Faculty and Admin Offices open at 8:15 a.m.			02-Jan-25
Undergraduate Student Orientation			03-Jan-25
Last day to apply to graduate for Spring 2025 Convocation			31-Jan-25
Family Day (Monday) - No classes (Most university offices closed)			17-Feb-25
Winter Reading Week start (Monday)			17-Feb-25
Winter Reading Week end (Saturday)			22-Feb-25
Good Friday - No classes (Most university offices closed)			18-Apr-25

**REPORT TO EXECUTIVE OF COUNCIL
FROM THE COUNCIL COMMITTEE ON THE FACULTY OF
GRADUATE STUDIES AND RESEARCH
23 NOVEMBER 2022**

ITEM(S) FOR DECISION:**1. FACULTY OF ENGINEERING AND APPLIED SCIENCE****1.1 New Program – Master’s Certificate in Engineering Management**

MOTION: To create the Master’s Certificate in Engineering Management effective 202320.

Master’s Certificate in in Engineering Management	Total credit hours
Choose 1 of: ENGG 819, ENIN 880CN, ENIN 880CK, ENIN 813, ENIN 814	3.0
*Choose 2 of: ENGG 819, ENIN 880CN, ENIN 880CK, ENIN 813, ENIN 814, ENGG 820, ENIN880CC, ENIN 880CE, ENIN 834, ENIN 888, ENIN 877, ENIN815, ENIN 880CI	6.0
Total	9.0

* Additional electives may be permitted with approval of the program chair

Rationale:

The certificate is supported by the expertise in the Faculty of Engineering and fully supported by the Industrial Systems Engineering and Faculties of Engineering and Applied Science and Business Administration. The program aligns with the University strategic plan for retention and recruitment, and contains courses that are transferable to the Faculty of Business Administration/Kenneth Levene Graduate School of Business. The program provides an additional, sustainable revenue stream for the University of Regina by utilizing current courses filed with FGSR at the graduate level and poses no new policy changes with regards to entry, scheduling, or related teaching and evaluation policies or procedures. This certificate will increase marketing with potential enrolment serving as professional development for APEGS members, especially those who are advancing their careers into management. In addition, this certificate supports the increased marketing of the engineering program with current efforts engaged by URI and the Faculty of Engineering to support global opportunities. This program provides the opportunity for increasing professional networking.

The program will operate within the Graduate Program of Industrial Systems Engineering. The format follows Master’s Certificates currently being offered in other faculties and/or those approved in the Faculty of Engineering and Applied Science. The certificate provides the ability to enroll as either a full time or part time student. Students completing the Master’s Certificate may have their courses transfer for credit to Master degree programs (M.Eng. and/or M.A.Sc.); that is, courses from the Master’s Certificate program in Engineering Management may ladder into Master degree programs allowing one to concurrently hold a Master’s Certificate and Master’s degree with approved courses for both credentials.

The proposal for the Master’s Certificate in Engineering Management may be found on pages 12-16 of the Agenda.

(end of Motion)

1.2 New Program – Master’s Certificate in Geothermal Engineering

MOTION: To create the Master’s Certificate Program in Geothermal Engineering. This is to be operated within the Graduate Program of Petroleum Systems Engineering, effective 202320.

Certificate Program in Geothermal Engineering	Total credit hours
ENPE 827	3.0
Choose 2 of: ENPE 824, ENPE 825, ENPE 828, ENIN 880CM	6.0
Total	9.0

Rationale:

Canada owns a vast amount of geothermal energy and has many leading geothermal energy operators. The geothermal energy companies (DEEP and Alberta No. 1, etc.) have recently received significant investment from the Canadian government. Smaller projects and pilot studies in AB, SK, and BC are heating up too. Designing geothermal plants or new drilling equipment requires the work of many engineers. Geologists, mechanical engineers, drilling engineers, petroleum engineers, environmental engineers, etc. are needed for each phase of geothermal plant development. In terms of job credentials, engineers are usually required to be certified as competent to carry out specific work, depending on the systems used by a particular geothermal power company. Therefore, a Master’s Certificate in Geothermal Engineering is significantly needed for graduate-level students or engineers who are expected to complete continuing education to keep current geothermal technologies. For more information, please see the attached proposal and document.

The proposal for the Master’s Certificate in Engineering Management may be found on pages 17-19 of the Agenda.

(end of Motion)

1.3 New Program – Master’s Certificate in Applied Artificial Intelligence

MOTION: To create the Master’s Certificate Program in Applied Artificial Intelligence as one of the graduate program options in the Program of Software Systems Engineering, Faculty of Engineering and Applied Science, effective 202320.

Certificate Program in Applied Artificial Intelligence	Total credit hours
Choose 1 of: ENSE 811, ENSE 812, ENSE 817 or ENGG 817, ENSE 818, ENSE 873	3.0
*Choose 2 of: ENSE 811, ENSE 812, ENSE 817 or ENGG 817, ENSE 818, ENSE 873, ENSE 805, ENSE 819, ENSE 828, ENSE 834, ENSE 865 or ENEL 865, ENSE 870, ENSE 871, ENSE 874, ENSE 883	6.0

Total	9.0
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* Additional electives may be permitted with approval of the program chair

Rationale:

The motion to create the Master Certificate Program in Applied Artificial Intelligence in the Software Systems Engineering Program is needed for intermediate graduate level students (prior to M.Eng./M.A.Sc. program) who are interested in learning about Applied Artificial Intelligence (AI) or who are interested to transition from the other graduate programs in Software Systems Engineering Program into a shorter certificate program. The Master Certificate consists of 9 credits and can be completed within one year. The proposed program covers different AI technologies and their applications to diverse fields. The proposed program can ladder up to other graduate programs in Software Systems Engineering (SSE) or can be used for laddering down from other graduate programs in SSE. The proposed program aims to serve both: (i) graduated undergraduate students with a bachelor's degree in Computer Science, Software Systems Engineering, or its equivalent, who are interested in exploring graduate studies through a Master Certificate Program, or (ii) graduate students in other graduate programs in SSE, who wish to complete a shorter-duration program. The Program of Software Systems Engineering consulted with the Department of Computer Science about the proposed program and their concerns have been addressed. The proposed program is similar to the Master Certificate Programs currently offered in the Levene Graduate School of Business.

The proposal for the Master's Certificate in Engineering Management may be found on page 20 of the Agenda.

(end of Motion)

2. FACULTY OF GRADUATE STUDIES AND RESEARCH

2.1 Graduate Credential Framework

MOTION: To approve the Graduate Credential Framework.
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This proposal is being modeled after the undergraduate framework that was taken to Executive of Council in May of 2021. 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.

Additionally, as new opportunities arise for the University, defining micro-credentials is essential to the university strategy to accommodate industry trends and needs, the needs of new Canadians who need a specific set of courses in addition to the educational credentials they possess, and for employers who want to upgrade the knowledge and skill sets of their employees.

The Graduate Credential Framework may be found on pages 21-27 of the Agenda.

(end of Motion)

3. LA CITE UNIVERSITAIRE FRANCOPHONE

3.1 Admission Requirements – English Language Proficiency Requirements

MOTION: Que le critère de compétence en langue anglaise (English Language Proficiency Requirement) soit éliminé pour les candidat-es aux programmes d'études supérieures à La Cité universitaire francophone.

MOTION: That the English Language Proficiency requirement be removed for all applicants to graduate programs at La Cité universitaire francophone effective 202320

Current	Proposed
<p>https://www.uregina.ca/gradstudies/current-students/grad-calendar/appl-proc.html</p>	
<p>English Proficiency Tests. International applicants, except those who attended universities where the language of instruction was English, must submit proof of English proficiency, usually in the form of recognized tests. The most common is TOEFL (Test of English as a Foreign Language). Applicants must have a TOEFL score of at least 580 Paper-based or 80 Internet-based, except those applying to Engineering, where a minimum TOEFL score of 550 Paper-based or 80 Internet-based applies. FGSR also accepts the following tests:</p>	<p>English Proficiency Tests. International applicants, except those who attended universities where the language of instruction was English, must submit proof of English proficiency, usually in the form of recognized tests with the exception of applications to French language programs in La Cité universitaire francophone. The most common is TOEFL (Test of English as a Foreign Language). Applicants must have a TOEFL score of at least 580 Paper-based or 80 Internet-based, except those applying to Engineering, where a minimum TOEFL score of 550 Paper-based or 80 Internet-based applies. FGSR also accepts the following tests:</p>

Justification/Rationale:

L'exigence de compétence en anglais est comprise comme étant une exigence générale de l'Université de Regina, plutôt que d'être unique à La Cité. Puisque les programmes ont lieu entièrement en français, il n'existe aucun besoin que les étudiant-es démontrent leur capacité en anglais. En ce moment, ce critère est surtout un obstacle pour les étudiant-es qui éprouvent des difficultés à avoir accès aux examens ou tests nécessaires, même s'ils et elles parlent déjà anglais.

The ELP requirement is understood as a general requirement at the University of Regina, rather than being unique to La Cité. Given that the programs take place entirely in French, there is no need for students to demonstrate capacity to study in English. At present, this requirement mostly stands as a barrier for students who have difficulty accessing the necessary examinations or tests, even though they generally already speak English

(end of Motion)

ITEM(S) FOR INFORMATION

1. NEW COURSES

Faculty of Engineering and Applied Science (effective 202320)

ENEL 742 (ENEL 442) Digital Communications (3)

This course covers 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. Students should have background knowledge in the above areas.

ENEL 752 (ENEL 452) Embedded and Real-Time Software Systems (3)

This course covers software design for resource-constrained targets, design and implementation of an embedded system involving feedback control, signal processing, or communications. Topics include: Real-time architectures, RTOS, software design, interfacing and communications, speed/memory/power tradeoffs, testing, dependability. Prior knowledge: C/C++, algorithms, data structures, microcontroller peripheral interfacing, interrupt handling.

ENEL 762 (ENEL 462) Control Systems (3)

This course extends student knowledge of continuous-time 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, state-space representation of systems, multi-input/ multi-output system analysis, state-space based design.

ENEL 772 (ENEL 472) Power Systems Fundamentals (3)

This course covers single and three phase machines, induction machine starting and protection circuits, transformer characteristics, fault current determination, per unit system and symmetrical components, industrial and utility protective devices, and introduction to load flow. Students should have background knowledge in the above areas.

ENPE 824 Surface Facilities and Energy Conversion (3)

Geothermal power plants require high-temperature hydrothermal resources that come from dry steam or hot water wells. This course covers the surface facilities required for producing and utilizing hydrothermal resources. Moreover, geothermal energy should be converted to other forms of energy to do useful work, and hence an understanding of the energy conversion, process, and storage is necessary.

ENPE 825 Geothermal Simulation and Plant Design (3)

This course provides an introduction to pressure, temperature, and flow models in geothermal reservoirs, as well as analysis. It also provides basic equipment and design for dry team, single/double flash, and binary cycle geothermal power plants. Rankine/Kalina cycles are used to analyze and improve plant thermodynamic efficiency. Environmental, economic, and social effects of plants.

ENPE 827 Fundamentals of Geothermal Engineering (3)

This course covers fundamental and advanced aspects of geothermal engineering on various topics, including coupling of fluid flow and thermal process in porous medium, geothermal reservoir modeling, software application, geothermal technology using closed-loop and enhanced geothermal system (EGS), and systematic usage of geothermal energy and its relationship with other renewable energy.

ENPE 828 Drilling and Production for Geothermal Engineering (3)

This course is designed to foster participants' knowledge in the area of design, characteristics, and application of drilling fluids and their rheology, circulation system, casing and liner, cementing, vertical and directional drilling, bottomhole assembly and completion, zone isolation, etc. in high-temperature and high-pressure (HPHT)/deep formations. Production from geothermal resources and high temperature zones and corresponding bottomhole infrastructures will be explained. Production analysis, optimization, and challenges related to both drilling and production from HPHT zones will be included. Pressure drop calculations during both drilling and production as well as decline analysis and lifting systems are included.

2. COURSE CHANGES

Faculty of Engineering and Applied Science (effective 202320)

Current	Proposed
ENIN 880AZ (3) Multi-Criteria Decision Analysis Students learn to integrate personal judgment and intuition in realistic industrial and business situations with the most widely applicable methodologies of decision and risk analysis, probability and statistics, competitive analysis, and management science.	ENIN 813 (3) Multi-Criteria Decision Analysis Students learn to integrate personal judgment and intuition in realistic industrial and business situations with the most widely applicable methodologies of decision and risk analysis, probability and statistics, competitive analysis, and management science.
ENIN 880 BK (3) Operations Management This course introduces engineering managers to operations management. This course focuses on these topics: outsourcing, off-shoring, six sigma improvement projects, enterprise resource planning, lean management, process, value planning, and supply chain mgnt.	ENIN 814 (3) Operations Management This course introduces engineering managers to operations management. This course focuses on these topics: outsourcing, off-shoring, six sigma improvement projects, enterprise resource planning, lean management, process, value planning, and supply chain mgnt management .
ENIN 880BF (3) Advanced Operations Research This course includes principles and practice of Operations Research and its role in decision making. In particular, it focuses on mathematical programming techniques such as linear and nonlinear programming, dynamic programming, and network optimization. It also includes quantitative modeling and decision analysis	ENIN 815 (3) Advanced Operations Research This course includes principles and practice of Operations Research and its role in decision making. In particular, it focuses on mathematical programming techniques such as linear and nonlinear programming, dynamic programming, and network optimization. It also includes quantitative modeling and decision analysis

techniques utilized in planning and optimizing complex systems.	techniques utilized in planning and optimizing complex systems.
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Master's Certificate in Engineering Management

University of Regina (UofR) Industrial Systems Engineering (ISE) Program proposes Engineering Management Certificate Program. This certificate is an independent certificate and can be used to introduce or ladder students into graduate M.Eng./M.A.Sc. programs. The certificate is focused on the development of skills, knowledge, and experience in the management of technical operations. The courses in the Master's Certificate may be transferred into the ISE M.Eng./M.A.Sc. program.

Entry Requirements to Engineering Management Master's Certificate program are B.A.Sc. degree of Industrial/Mechanical/Manufacturing Engineering or Bachelor degree in an equivalent engineering field or in a discipline approved by the ISE program.

Engineering Management Certificate

Courses requirements: 1 + 2 (total three courses, 9 credit hours)

List 1: Core Courses		*List 2: Elective Courses	
ENGG 819	Engineering Approach to Project Management	ENGG 820	Economics for Practicing Engineers
ENIN 880CN	Supply Chain Management	ENIN 815	Advanced Operations Research
ENIN 880CK	Leadership in Engineering	ENIN 880CC	Engineering Asset Management
ENIN 813	Multi-Criteria Decision Analysis	ENIN 880CE	Change Management in Engineering
ENIN 814	Operations Management	ENIN 834	Introduction to Intelligent Systems
		ENIN 888	Engineering Safety Systems and Management
		ENIN 877	World Class Manufacturing Practices
		ENIN 880CI	Optimization in Industrial Systems

*Additional electives may be permitted with approval of the program chair

Note:

- Mandatory course 1 will be selected from List 1.
- Remaining 2 courses will be selected from Lists 1 and/or 2.
- Courses used for previously completed degrees will not be accepted.
- Transfer credits from another graduate program will be reviewed for acceptance.

Rationale

In Canada, engineers with the combination of technical expertise and management skills are increasingly in demand by organizations (service or manufacturing). It is expected that over the period of 2019-2028, there will be a need of 15,200 new engineering managers in Canada (Job bank Canada). Engineering management is a unique discipline that combines engineering and management and helps engineers in leading technical personnel and projects. Engineering management certificate program at UofR in ISE is providing working professional an opportunity to enhance their managerial skills and become future leaders in their organizations. This certification will help engineering managers to learn and enhance their leadership, motivational, communications, and decision-making skills by practicing management functions within an engineering context. This certification is ideal for those who do not wish to complete full graduate degree but interested in graduate level course to learn managerial skills. The specific knowledge obtained from engineering management certification program at UofR ISE will offer students an edge in the job market not only in Saskatchewan but in Canada as well.

University of Regina will be considered competitive with several universities who are offering traditional MEng. and MSc. engineering management program in Canada such as University of Alberta, University of Windsor, University of Ottawa, Memorial University of Newfoundland, Ontario Tech University and The University of Guelph. Uniquely, the University of Regina will be the first to offering a graduate certificate in engineering management like that being proposed. The certificate program is not creating any competition, as there is no similar certificate program within Saskatchewan or in Canada for engineers.

No new resource allocation is required as professors in Industrial Systems Engineering currently instruct the courses with at least one course provided each academic term. The courses are offered systematically within the program.

Engineering managers are still in high demand across Canada from both a National and Provincial basis. The engineering management certificate program created by ISE program of University of Regina will be promoted to Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS), Institute of Industrial and Systems Engineering (IISE), Industrial Engineering and Operations Management Society (IEOM), and other associations, industrial engineering societies out of province (e.g., BC, ON) and international students' attendance will be scheduled and organized with the support of UofR AV services and IT support. Furthermore, the undergraduate Industrial Systems Engineering (ISE) program may provide a stream of students who specialize in the Engineering Management option of the University of Regina ISE program.

Course List and Calendar Descriptions

List 1: Core Courses

ENGG 819 - Engineering Approach to Project Management
<p>The course covers the fundamentals of project management, nine knowledge areas, five process groups and forty-four processes. It takes a systems approach to managing engineering projects. Students will be exposed to concepts relevant to current industrial practices that adhere to global standard and the PMI project management body of knowledge.</p> <p>3.000 Credit hours 3.000 Lecture hours</p>
ENIN 880CN - Supply Chain Management
<p>This course provides student with knowledge and tools necessary to develop, implement, and sustain strategies for managing supply chain issues. Topics includes supply chain drivers and metrics, supply chain coordination, sourcing, distribution network design, transportation models, warehousing, sustainable supply chain, and role of technology in supporting supply chain operations.</p> <p>3.000 Credit hours 3.000 Lecture hours</p>
ENIN 880CK - Leadership in Engineering
<p>This course covers the concepts of leadership in systems engineering. This course will include a balance of theory and practice to cover major topics such as leadership behavior, skills, style, and culture. The theories will be explained through the discussions and in class activities and reflections with the focus on topics such as ethics, sustainability, and diversity in modern leadership.</p> <p>3.000 Credit hours 3.000 Lecture hours</p>
ENIN 813 - Multi-Criteria Decision Analysis
<p>Students learn to integrate personal judgment and intuition in realistic industrial and business situations with the most widely applicable methodologies of decision and risk analysis, probability and statistics, competitive analysis, and management science.</p> <p>3.000 Credit hours 3.000 Lecture hours</p>
ENIN 814 - Operations Management
<p>This course introduces engineering managers to operations management. This course focuses on these topics: outsourcing, off-shoring, six sigma improvement projects, enterprise resource planning, lean management, process, value planning, and supply chain management.</p> <p>3.000 Credit hours 3.000 Lecture hours</p>

List 2: Elective Courses

ENGG 820 - Economics for Practicing Engineers
<p>This course explores the cost analysis that accompanies large engineering projects. Analysis of the engineering system and value planning is covered. Additional topics include capital and operating cost estimation, discounting, comparative costing, and capital recovery.</p> <p>3.000 Credit hours 3.000 Lecture hours</p>
ENIN 880CC - Engineering Asset Management
<p>Course topics include but are not limited to introduction to asset management, performance indicators, level of service, infrastructure system models, deterioration mechanisms and condition evaluation, infrastructure assets database management and GIS tool, risk-based decision support tools, lifecycle cost and benefit analysis, resource allocation, and integrated asset management.</p> <p>3.000 Credit hours 3.000 Lecture hours</p>
ENIN 880CE - Change Management in Engineering
<p>This course covers the concepts of change management process in systems engineering. This will include the overall process of requesting, determining possibility, planning, implementing, and evaluating of changes to a system in order to shrinking errors, delays, and scrap, increasing product quality, and reducing cost of manufacturing.</p> <p>3.000 Credit hours 3.000 Lecture hours</p>
ENIN 834 - Introduction to Intelligent Systems
<p>Fuzzy Sets, Fuzzy Rules and Fuzzy Reasoning, Fuzzy Inference Systems, Adaptive Artificial Neural Networks, Supervised Learning Neural Networks, Adaptive Neuro-Fuzzy Inference Systems, Coactive Neuro-Fuzzy Modeling.</p> <p>3.000 Credit hours 3.000 Lecture hours</p>
ENIN 888 - Engineering Safety Systems and Management
<p>Professional engineering responsibility towards safety include: legislation, regulations and codes; health and safety programs; workplace incident assessments; risk hazard identification; risk management fundamentals; review of best practices and safety management. Content involves engineering design, case analysis, and development and use of various tools.</p> <p>3.000 Credit hours 3.000 Lecture hours</p>

ENIN 877 - World Class Manufacturing Practises

World Class Manufacturing (WCM) is a continuous-improvement system that drives success. The operating methodology focuses on trimming waste, boosting productivity and improving quality and safety. Work place pillars are defined. Monitoring and assessment tools are applied to production and processing, implementation, management and administration.

3.000 Credit hours

0.000 TO 6.000 Lecture hours

ENIN 815 - Advanced Operations Research

This course includes principles and practice of Operations Research and its role in decision making. In particular, it focuses on mathematical programming techniques such as linear and nonlinear programming, dynamic programming, and network optimization. It also includes quantitative modeling and decision analysis techniques utilized in planning and optimizing complex systems.

3.000 Credit hours

3.000 Lecture hours

ENIN 880CI - Optimization in Industrial Systems

Offers topics of interest for increasing operational efficiency and resource utilization, performance improvement of process and service industries applying noble and stochastic network optimization, maintenance optimization, capacity optimization, constraint optimization, and revenue optimization techniques.

3.000 Credit hours

3.000 Lecture hours

Master's Certificate in Geothermal Engineering

University of Regina (UofR), Petroleum Systems Engineering Program considers creating a Master's Certificate in Geothermal Engineering for graduate-level students (before MENG/MASc program) who are interested in geothermal exploration, development, and production.

Students admitted to the Master's Certificate in Geothermal Engineering are required to have a BASc degree in Petroleum Engineering or a Bachelor's degree in equivalent engineering fields. The admission requires approval from the program.

Effective date: 202330

Geothermal Certificate

Courses required: 1 mandatory + 2 other courses

Courses Code	Course Name	Credit Hours	Comment
Course 1 ENPE 827	Fundamentals of Geothermal Engineering	3	Required
Course 2 ENPE 828	Drilling and Production for Geothermal Engineering	3	
Course 3 ENIN 880CM	Renewable Energy Technology	3	
Course 4 ENPE 825	Geothermal Simulation and Plant Design	3	
Course 5 ENPE 824	Surface Facilities and Energy Conversion	3	

Note:

- Required Course – ENPE 827
- Remaining two courses will be selected from other available courses.
- The potential students for this program include engineers and UofR engineering students with bachelor's degrees.
- The admission should follow the FGSR requirements (refer to the following website: <https://www.uregina.ca/gradstudies/future-students/Documentation-international/index.html>). There is also a mid-career option for admission, in which prospective students who are Professional Engineers (P.Eng) or Engineer-in-Training (EIT) with at least five years of experience may be admitted.
- Note: The Master's Certificate in Geothermal Engineering from the University of Regina ladders into the MEng or MASc program. Students will be allowed to concurrently hold this Master's Certificate and the MEng or MASc degree, using the same courses for both credentials. This means that a student could earn the Master's Certificate, apply for entry and be accepted into the MEng or MASc program, and then take the additional courses to earn the degree.

Rationale

1. Why is this certificate needed?

Canada owns a vast amount of geothermal energy and has many leading geothermal energy operators. The geothermal energy companies (DEEP and Alberta No. 1, etc.) have recently received significant investment from the Canadian government. Smaller projects and pilot studies in AB, SK, and BC are heating up too. Designing geothermal plants or new drilling equipment requires the work of many engineers. Geologists, mechanical engineers, drilling engineers, petroleum engineers, environmental engineers, etc. are needed for each phase of geothermal plant development. In terms of job credentials, engineers are usually required to be certified as competent to carry out specific work, depending on the systems used by a particular geothermal power company. Therefore, a Master's Certificate in Geothermal Engineering is significantly needed for graduate-level students or engineers who are expected to complete continuing education to keep current geothermal technologies. Currently, Geothermal Energy-related training or program is missing in Canada. The University of Regina has a deep geothermal energy research project dating back to 1979 when an exploration geothermal test well was constructed. The great research results generated more than 40 research papers and significant geothermal energy development in the Canadian community. The UofR PSE program has profound geothermal engineering research background and history. The specific knowledge obtained from the PSE program will offer students an edge in the job market both in Saskatchewan and Canada.

2. Are there similar programs elsewhere? If so do they constitute a competition?

There is no similar certificate program within Canada for engineers.

3. How will it be resourced (instructors and labs)? How will the certificate program continue if one of the instructors is on sabbatical?

The primary instructors who will teach the courses for the certificate program are from the PSE program. Other professors of the Petroleum Systems Engineering program can cover the courses if one of the instructors is on sabbatical leave or other need arises. There will be no issues with assigned instructors' teaching load. In addition, the lab instructors to teach the lab sections for the geothermal engineering certificate program can be given if necessary.

4. What is the number of expected students?

In 2019, the Canadian government announced that it would provide 25.6 million Canadian dollars in funding for the country's first geothermal power facility, providing energy to approximately 5,000 homes. The facility **near Estevan, Saskatchewan province**, will create 100 jobs during its construction phase. Statistical data shows that the geothermal industry could create 5,850 permanent operations jobs by 2050. At least 40 students could be expected every year if 20% of these jobs needed geothermal credentials through this certificate program. In addition, the Master's Certificate in Geothermal Engineering created by the PSE program of the University of Regina will be promoted to the Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS), Association of Professional Engineers and Geoscientists of Alberta (APEGA), Canadian Geothermal Association Promotion, Mining association, and Society of Petroleum Engineer (SPE) and other associations, also out of province (BC, ON, etc.). This certificate program will be promoted to the international students to be enrolled in this program.

5. Is there external support or endorsement, e.g. a company or a professional association?

The Canadian Geothermal Energy Association targets accelerating Canadian exploration and development of geothermal resources. Geothermal Canada is a not-for-profit organization committed to leveraging engineering and science technology and promoting geothermal-related research and development within Canada. Petroleum Technology Research Center also strongly supports the industrial involved study and projects. Deep Earth Energy Production (DEEP) is a company that operates in the south part of Saskatchewan to meet the increasing demands for clean and sustainable energy. Other companies include Razor Energy Corp., Eavor-Lite in Alberta, and some operators in British Columbia.

Software Systems Engineering Masters Certificate Program in Applied Artificial Intelligence

University of Regina (UofR) Software Systems Engineering (SSE) Program considers creating a Masters Certificate Program in Applied Artificial Intelligence for intermediate graduate level students (prior to MENG/MASc program) who are interested in applications of the Artificial Intelligence technology.

The graduate students who are admitted to this SSE certificate program are required to have obtained a B.A.Sc. degree in Software Systems Engineering, or a B.Sc. degree in Computer Science, or an equivalent degree. The admission requires approval from the SSE program.

Masters Certificate in Applied Artificial Intelligence

Courses required: 1 mandatory + 2 other courses

mandatory = Course #1-#5

Mandatory Courses Code	Course Name
Mandatory Course #1 ENSE 811	Practical Deep Learning
Mandatory Course #2 ENSE 812	Applications of Deep Learning in Computer Vision
Mandatory Course #3 ENSE 817 or ENGG 817	Applied Artificial Intelligence
Mandatory Course #4 ENSE 818 (formerly ENSE 885AF)	Ontology and Software Engineering
Mandatory Course #5 ENSE 873 (formerly ENSE 885AK)	Software Systems Data Analytics
*Other Courses Code	
Other Course #1 ENSE 805	Researching and Engineering Community-Centred Software
Other Course #2 ENSE 819	Mobile Application Development
Other Course #3 ENSE 828	Developing Creative Software
Other Course #4 ENSE 834	Smart Grid, Architecture, Design and Analysis
Other Course #5 ENSE 865 or ENEL 865	Applied Machine Learning
Other Course #6 ENSE 870	Advanced Software Design
Other Course #7 ENSE 871	Usability Research and Engineering
Other Course #8 ENSE 874	Advance Software Process
Other Course #9 ENSE 883	Software Systems Architecture

*Additional electives may be permitted with approval of the program chair

Notes:

- One mandatory course will be selected from Course #1 - #5
- Remaining 2 courses will be selected from Mandatory Courses #1- #5 or Other Courses #1 to #11
- The courses chosen for a program requires the approval of the supervisor
- Graduate students who are enrolled in this program should have a grade of 70% and above in each of the courses.
- The potential students for this program include UR Software Systems Engineering (SSE) or Computer Science (CS) program graduated undergraduate students and graduate students, or students with equivalent undergraduate training in SSE or CS. SSE Program approval is required. Proof of English proficiency will be required for international applicants and applicants whose first language is not English.

Graduate Credential Framework at the University of Regina

Preamble

The graduate credential framework is being modeled after the undergraduate framework that was taken to Executive of Council in May of 2021. FGSR has prepared the graduate proposal with input from:

- Dr. Nilgün Önder, Associate Vice-President (Academic)
- Registrar, James D’Arcy (Background and definitions)
- Glenys Sylvestre, Executive Director, University Governance and University Secretary
- The Micro-credentials Working Group
- Associate Deans Research Group
- The Council Committee on Academic Mission
- Deans’ Council
- CCFGSR (for approval)

Background

The University of Regina Act (the "Act") provides authority to the University of Regina to award degrees and certificates. In Saskatchewan, unlike other provincial jurisdictions that have quality control bodies, such as Alberta and Ontario, the responsibility for the quality assurance that governs the academic content, credit hour requirements, minimum performance standards, and other specific regulations that contribute to the awarding of a credential is within the purview of the University of Regina Senate, in accordance with the Act.

At a provincial level, quality assurance boards can have additional responsibilities that include, but are not limited to:

- developing, maintaining, and enforcing accreditation standards;
- ensuring academic programming is reflective of current needs and trends;
- developing standardized credit hour requirements in the awarding of credentials and;
- ensuring duplication of program delivery is minimized, either provincially or regionally, within a province.

Introduction

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.

Additionally, as new opportunities arise for the University, defining *micro-credentials* is essential to the university strategy to accommodate industry trends and needs, the needs of new Canadians who need a specific set of courses in addition to the educational credentials they possess, and for employers who want to upgrade the knowledge and skill sets of their employees.

This proposal will present a framework that will:

- establish specific credit hour requirements and provide consistency in the credit hour requirements for credentializing;
- create academic standards for credentializing that can be interpreted widely without misinterpretation by both internal and external audiences;

- provide guidelines so that Faculties have opportunities to establish credentials that align with new and contemporary trends;
- establish definitions that are consistent within the pan-Canadian landscape; and
- provide information that can be used by applicants to the University to make informed decisions about program enrolment and program opportunities.

Definitions

Collaborative Program. Refers to a formalized collaboration between the University of Regina and a partner institution to offer a degree program or a combined degree program. In this model, both institutions have general responsibilities in the development and the delivery of curriculum. It generally results in a U of R credential with recognition of the collaboration on the parchment issued: "In collaboration with XXXXX". This is also known as a Joint Program.

Cotutelle. Normally offered by two institutions under formal agreement leading to the outcome of two credentials, one from the U of R and one from the other institution.

Concentration. A focus within a program, usually within a major, comprising a cluster of courses on a particular theme or topic; or, a disciplinary component of a multidisciplinary degree program. For example: a major in Interdisciplinary Studies with concentrations in Visual Art, English, and Creative Technologies.

Credential. Refers to a degree, diploma, or certificate.

Joint Program. See Collaborative Program.

Major. Refers to the primary area of specialization in a degree program.

Micro-Credential. Refers to a series of courses in a specific subject area that provide opportunities for academic or professional development.

Residency. Residency refers to the minimum number of University of Regina credit hours that a student must complete within their credential completion requirements (see the Graduation section of the Academic Calendar for more information)

Graduate Credential Framework

Framework at a glance:

The graduate framework is presented here in short format. Please see the specific template on each for further information.

Credential Category	Level	Credit Hours	Parchment Nomenclature	Major [†]	Minor	Concentration	Distinction/Great Distinction	Honours/High Honours	Year of Study Equivalency
Micro-credential (Credit)	Graduate	Less than 9	N/A	N/A	N/A	N/A	N/A	N/A	Variable
Certificate (Credit)	Graduate	9-14	"Graduate Certificate in"	Y	N/A	N/A	N/A	N/A	1-2 Terms
Diploma (Credit)	Graduate	15-18	"Post Graduate Diploma in"	Y	N/A	N/A	N/A	N/A	1 year
Master's Degree	Graduate	Minimum 30	"Master of"	Y	N/A	Variable for Interdisciplinary programs only	N/A	N/A	1-3 *
Doctor of Philosophy	Graduate	Minimum 60	"Doctor of Philosophy in"	Y	N/A	Variable for Interdisciplinary programs only	N/A	N/A	3-6 *
Doctor of XXXX	Graduate	Minimum 30	"Doctor of"	Y	N/A	N/A	N/A	N/A	3-5

[†] Major refers to the area of study. For example: Master's Certificate in Human Resource Management

* As stated in the [Saskatchewan Higher Education Quality Assurance Graduate Degree Level Standards](#) document, "Master's programs vary typically from two to six semesters, depending on the field and the speed at which individuals progress through requirements." and "A doctoral program is typically three to six years in length, depending on the field and the speed at which individuals progress through requirements."

Level: Graduate

Credential Category	Credit Hour Requirement	Parchment Nomenclature	Major Eligibility
Graduate Micro-credential	Less than 9 credit hours	N/A	N/A
Minor Eligibility	Specialization Eligibility	Concentration Eligibility	Distinction/Great Distinction
N/A	N/A	N/A	N/A
Designation Eligibility	Course Level	Year of Study Equivalency	
Transcript notation: Credit Micro Credential in XXXXX No other notations apply	Graduate - Credit	Variable (e.g. less than 2 months for a compressed 3-credit hour course)	
Definition	Skill and knowledge development; professional development (i.e., development of specific skills, competencies, or knowledge in a specialized, focused area) (i.e. change management, equity and inclusion in the workplace, Indigenous business development, project management, organizational leadership).		
Major, Minor, Concentration, and Specialization Regulations	Majors, minors, concentrations, and specializations are not available in a micro-credential program.		
Admission Requirements	A graduating average of at least 70 per cent from a four-year Bachelor's degree (or equivalent) is required for admission to all programs.		

Graduate Credential Framework

Credential Category	Credit Hour Requirement	Parchment Nomenclature	Major Eligibility
Graduate Certificate	9 -15 credit hours	“Graduate Certificate in”	Variable
Minor Eligibility	Specialization Eligibility	Concentration Eligibility	Distinction/Great Distinction
N/A	N/A	N/A	N/A
Designation Eligibility		Course Level	Year of Study Equivalency
Transcript notation: Graduate Certificate in XXXXXX No other notations apply		Graduate – Credit	Students normally complete in 1-2 semesters, and have a four-year time limit to complete.
Definition	Provide study in a focused area to enhance career competences and exposure to an area of focus, without committing to a master’s program.		
Major, Minor, Concentration, and Specialization Regulations	Majors are determined by the line Faculty offering the certificate. Minors, concentrations, and specializations are not available.		
Admission Requirements	A graduating average of at least 70 per cent from a four-year Bachelor’s degree (or equivalent) is required for admission to all programs.		

Credential Category	Credit Hour Requirement	Parchment Nomenclature	Major Eligibility
Graduate Diploma (credit)	15-18 credit hours	“Graduate Diploma in”	Variable
Minor Eligibility	Specialization Eligibility	Concentration Eligibility	Distinction/Great Distinction
N/A	N/A	N/A	N/A
Designation Eligibility		Course Level	Year of Study Equivalency
Transcript notation: Graduate Diploma in XXXX No other notations apply		Graduate – Credit	Students normally complete in 1 year, and, have a four-year time limit to complete.
Definition	Provide study in a focused area to enhance career competencies and transition to an area of focus.		
Major, Minor, Concentration, and Specialization Regulations	Majors are determined by the line Faculty offering the diploma. Minors, concentrations, and specializations are not available.		
Admission Requirements	A graduating average of at least 70 per cent from a four-year Bachelor’s degree (or equivalent) is required for admission to all programs.		

Graduate Credential Framework

Credential Category	Credit Hour Requirement	Parchment Nomenclature	Major Eligibility
Master's Degree	Minimum 30 credit hours	"Master of"	Variable
Minor Eligibility	Specialization Eligibility	Concentration Eligibility	Distinction/Great Distinction
N/A	N/A	Variable (for Interdisciplinary only)	N/A
Designation Eligibility		Course Level	Year of Study Equivalency
Transcript notation: Master of XXXX in XXXX Co-op and International designations as applicable		Graduate – Credit	1-3 years with a five year time limit for thesis based, and a six year time limit for non-thesis based *
Definition	<p>A Master's degree program builds on the knowledge and competencies acquired during related undergraduate study, and requires more specialized knowledge and intellectual autonomy than a Bachelor's degree program. Much of the study undertaken at the Master's level will have been at, or informed by, the forefront of an academic or professional discipline. Students will have shown some originality in the application of knowledge, and they will understand how the boundaries of knowledge are advanced through research. They will be able to deal with complex issues, both systematically and creatively, and they will show independent capacity in addressing issues and problems.</p> <p>Research-oriented Master's programs are typically for graduates of related undergraduate or professional programs in the field, or students who have taken bridging studies to equip them for graduate study in the field; the focus is on developing the research, analytical, methodological, interpretive, and expository skills necessary for doctoral studies or for leadership in society. Some programs are thesis-based and require the student to develop and demonstrate advanced research skills under supervision. Others are course-based and require students to demonstrate the necessary research, analytical, interpretative, methodological, and expository skills in course exercises.</p> <p>Examples: Master of Arts (MA) programs in the humanities and social sciences; Master of Science (MSc) programs.</p> <p>Profession-oriented Master's programs normally admit students holding Bachelor's degrees and provide them with a selection of courses and exercises intended to prepare them for a particular profession or field of practice; or, if they are already involved in the profession or field, to extend their knowledge base and skills as professionals/practitioners.</p> <p>Example: Master of Social Work (MSW) programs.</p> <p>Definition adapted from the Saskatchewan Higher Education Quality Assurance Board.</p>		
Major, Minor, Concentration, and Specialization Regulations	Majors are determined by the line Faculty offering the degree. Minors and specializations are not available in a Master's degree; however, concentrations may apply to Interdisciplinary programs.		
Admission Requirements	A graduating average of at least 70 per cent from a four-year Bachelor's degree (or equivalent) is required for admission to all programs except for English, History, Mathematics and Statistics and the Master of Public Administration, where the required average is 75 per cent.		

* As stated in the [Saskatchewan Higher Education Quality Assurance Graduate Degree Level Standards](#) document, "Master's programs vary typically from two to six semesters, depending on the field and the speed at which individuals progress through requirements."

Graduate Credential Framework

Credential Category	Credit Hour Requirement	Parchment Nomenclature	Major Eligibility
Doctor of Philosophy Degree	Minimum of 60 credit hours	“Doctor of Philosophy”	Variable
Minor Eligibility	Specialization Eligibility	Concentration Eligibility	Distinction/Great Distinction
N/A	N/A	Variable (for Interdisciplinary only)	N/A
Designation Eligibility		Course Level	Year of Study Equivalency
Transcript notation: Doctor of Philosophy in XXXX		Graduate – Credit	3-6 years with a six year time limit *
Definition	<p>A doctoral program builds on the knowledge and competencies in a field or discipline acquired during prior study, usually at the graduate level. Study at the doctoral level is at the forefront of an academic or professional discipline.</p> <p>Holders of the doctoral degree must have demonstrated a high degree of intellectual autonomy, an ability to conceptualize, design, and implement projects for the generation of significant new knowledge and/or understanding, and an ability to create and interpret knowledge that extends the forefront of a discipline, usually through original research or creative activity.</p> <p>Preparation for doctoral work may involve coursework of varying length aimed at cultivating further conceptual depth or breadth. It may also involve written and oral examinations of knowledge and skills in aspects of the discipline prior to authorization to proceed to work on a dissertation.</p> <p>Research-oriented doctoral programs focus on the development of the conceptual and methodological knowledge and skills required to do original research and to make an original contribution to knowledge in the form of a dissertation. In some fields an internship or exhibition component may be required, but without diluting the significance of the dissertation as the primary demonstration of mastery. Such programs lead to the awarding of the PhD.</p> <p>Examples: PhD (Physics), PhD (Education), PhD (Kinesiology)</p> <p>Definition adapted from the Saskatchewan Higher Education Quality Assurance Board.</p>		
Major, Minor, Concentration, and Specialization Regulations	Majors are determined by the line Faculty offering the degree. Minors and specializations are not available in a doctoral degree; however, concentrations may apply to Interdisciplinary programs.		
Admission Requirements	<p>A graduating average of at least 70 per cent from a four-year Bachelor’s degree (or equivalent) is required for admission to all programs except for English, History, Mathematics and Statistics and the Master of Public Administration, where the required average is 75 per cent.</p> <p>Normally, applicants must have obtained a thesis-based Master’s degree in the discipline to qualify as a doctoral student. Applicants must have academic credentials consistent with being fully-qualified to undertake graduate work at the doctoral level. The categories of probationary or qualifying student do not apply at the doctoral level.</p>		

* As stated in the [Saskatchewan Higher Education Quality Assurance Graduate Degree Level Standards](#) document, “A doctoral program is typically three to six years in length, depending on the field and the speed at which individuals progress through requirements.”

Graduate Credential Framework

Credential Category	Credit Hour Requirement	Parchment Nomenclature	Major Eligibility
Doctor of XXXX Degree	Minimum of 30 credit hours	"Doctor of XXXX"	Variable
Minor Eligibility	Specialization Eligibility	Concentration Eligibility	Distinction/Great Distinction
N/A	N/A	N/A	N/A
Designation Eligibility		Course Level	Year of Study Equivalency
Transcript notation: Doctor of XXXX		Graduate – Credit	3-5 years with a six year time limit.
Definition	<p>A doctoral program builds on the knowledge and competencies in a field or discipline acquired during prior study, usually at the graduate level. Study at the doctoral level is at the forefront of an academic or professional discipline.</p> <p>Holders of the doctoral degree must have demonstrated a high degree of intellectual autonomy, an ability to conceptualize, design, and implement projects for the generation of significant new knowledge and/or understanding, and an ability to create and interpret knowledge that extends the forefront of a discipline, usually through original research or creative activity.</p> <p>Preparation for doctoral work may involve course work of varying length aimed at cultivating further conceptual depth or breadth. It may also involve written and oral examinations of knowledge and skills in aspects of the discipline prior to authorization to proceed to work on a dissertation.</p> <p>Practice-oriented doctoral programs are of a highly specialized and applied nature, relate to a professional or creative activity and, where there is an internship or exhibition requirement, may also require a dissertation or dissertation-in-practice. Doctoral programs with an orientation to practice typically involve more course work than doctoral programs with a more theoretical or disciplinary focus. Such programs lead to the award of a degree designation reflecting the field or discipline.</p> <p>Examples: EdD (Education), MusDoc (Music), PsyD (Psychology).</p> <p>Definition adapted from the Saskatchewan Higher Education Quality Assurance Board.</p>		
Major, Minor, Concentration, and Specialization Regulations	Majors are determined by the line Faculty offering the degree. Minors and specializations are not available in a doctoral degree; however, concentrations may apply to Interdisciplinary programs.		
Admission Requirements	<p>A graduating average of at least 70 per cent from a four-year Bachelor's degree (or equivalent) is required for admission to all programs.</p> <p>Applicants must have obtained a Master's degree in the discipline to qualify as a doctoral student. Applicants must have academic credentials consistent with being fully-qualified to undertake graduate work at the doctoral level. The categories of probationary or qualifying student do not apply at the doctoral level.</p>		

**REPORT TO EXECUTIVE OF COUNCIL
FROM THE COUNCIL COMMITTEE ON UNDERGRADUATE
ADMISSIONS AND STUDIES
23 NOVEMBER 2022**

ITEM(S) FOR APPROVAL:

1. CENTRE FOR CONTINUING EDUCATION

1.1 Program Name Change – UR Accelerated

<p>MOTION: To change the name of the UR Accelerated Program to the High School Accelerated program, effective 202330</p>

General Calendar, Undergraduate Admissions section, p. 30:

~~UR High School~~ Accelerated Program for High School Students and Home-Based Learners

Applicants who are currently enrolled in high school or as home-based learners (minimum age 16) may be admitted to the University to take a maximum of two courses per term (semester). Applicants must submit a completed Application for Admission and Registration for Accelerated Students with the application fee to Student and Instructor Services (Credit), Centre for Continuing Education. Students who wish to receive special project credit on their high school transcript for successful completion of a University of Regina credit course must complete a special project application from available from their high school. Students taking a dual-credit eligible course should submit their University of Regina transcript to their school upon successful completion of their University of Regina course.

General Calendar, Centre for Continuing Education, Admission, Re-admission, and Transfer section p. 334:

Admission

All new applicants to certificate and transition programs (Casual Studies and ~~UR High School~~ Accelerated) must apply for admission directly to Student and Instructor Services (Credit), Centre for Continuing Education. Applications are accepted until the start date of each term. Refer to the Admissions section for dates. Continuing Education students who would like to apply to a Certificate Program can apply for admission, transfer, and readmission to Undergraduate Certificate Programs online at <http://www.uregina.ca/cce>, in person, or by mail.

Rationale: In order to clarify what this program is as well as the intended audience, we would like to change the name to the High School Accelerated Program (HSXL).

(end of Motion)

1.2 Admission Requirements – High School Accelerated Program

MOTION: To create minimum academic admission requirements to the High School Accelerated Program, effective 202330.

UR High School Accelerated Program for High School Students and Home-Based Learners

Applicants who are currently enrolled in high school or as home-based learners (minimum age 16) may be admitted to the University to take a maximum of two courses per term (semester). Applicants must submit a completed Application for Admission and Registration for Accelerated Students with the application fee to Student and Instructor Services (Credit), Centre for Continuing Education with an up-to-date high school transcript.

Admission Requirements

1. Minimum 65% on five academic subjects on a combination of two years of secondary level courses.
2. These courses will be taken from subjects normally used for admission purposes (refer to approved list of high school courses in the admissions section of the General Calendar).

All applicants must meet English Language Proficiency requirements via one of the following:

- Successful completion of Grades 9 and 10 English, or Grades 10 and 11 English, taken in sequence, as part of two full academic years in a high school using a provincially- or state-accredited Canadian or U.S. curriculum, or equivalent international qualification A grade of 80% or better in a Grade 12 provincially-examined English course, as part of one full term of study, or equivalent international qualification.
- An approved test of proficiency in English.

Rationale: As the High School Accelerated Program and Dual Credit options are expanding, it is becoming more evident that clear and transparent minimum requirements for admission are required. This will enable us to intervene to ensure students are adequately supported and to ensure the best chance of being successful in their future studies. While previously admission was based on a minimum age (age 16), we need a way to communicate to schools, school divisions, the Ministry of Education, parents, students, and other stakeholders what may be required for students to be successful. Students do currently need to meet English Language Proficiency requirements.

(end of Motion)

2. FACULTY OF EDUCATION

2.1 Program Revisions – Baccalauréat en éducation Élémentaire (BacEd) and Secondaire (BacEd) française programs

MOTION: That the changes be made to the Baccalauréat en éducation Élémentaire (BacEd) and Secondaire, (BacEd) française programs, effective 202320.

Option A : Baccalauréat en Éducation Élémentaire (BacEd) (120 Crédits)	
Session 1 (Automne)	Session 2 (Hiver)
DELFI 151(FR) (3) ECSF 100 (3) ENGL 100 ou FRN 352(3) FRN 201/300/301 (3) KHS 139 ou cours au choix approuvé en KHS (FR) (3)	INDG 100 (FR) (3) ECSF 110 (3) FRN niveau 200/300 (3) MATH 101 (FR) (3) sciences naturelles (3)
Session 3 - ULaval*	Session 4 - ULaval*
CSO 1903 (DLC 252) (3) FLS / FRN niveau 200/300 (3) FLS / FRN niveau 200/300 (3) humanités (3) cours au choix (3)	CSO 2902 (DLC 253) (3) DIH 1060 (1) ENP 1950 (2) <u>ENP 1951 (3)</u> FLS / FRN niveau 200/300 (3) beaux-arts (3) cours au choix (3)
Session 5	Session 6
DART 315 (3) DESO 315 (3) DLNG 315 (3) ECSF 317 (3) EPSF 315 (3)	DEPH 315 (3) DMTH 315 (3) DMXE 315 (3) DSCI 315 (3) EPSF 325 (3)
Session 7	Session 8
EFLD 405 (internat) (15)	cours au choix (3) DFMM 400 ou DFMM 435 (3) DLNG 425 (3) EPSY 418 (3) EPSY 425 (3)

Option B (5 Ans): Baccalauréat en Éducation Élémentaire et BA (Français- études francophones et interculturelles) (150 Crédits)	
Session 1 (Automne)	Session 2 (Hiver)
DELFL 151 (3) ECSF 100 (3) ENGL 100 ou FRN 352 (3) FRN 201 (3) KHS 139 ou cours au choix approuvé en KHS (FR) (3)	INDG 100 (FR) (3) ECSF 110 (3) FRN 300 (3) MATH 101 (FR) (3) sciences naturelles (3)
Session 3 - ULaval*	Session 4 - ULaval*
CSO 1903 (DLC 252) (3) FRN 301 (3) FRN niveau 200 (3) un cours en ANTH ou RLST * (3) FRN niveau 200 (3)	CSO 2902 (DLC 253) (3) DID 1060 (1) ENP 1950 (2) <u>ENP 1951 (3)</u> FRN 366 (3) FRN niveau 246 (3) beaux-arts (3)
Session 5	Session 6
un cours de ENGL 110, ou PHIL 100 ou SOST 110 (3) FRN 236 (3) FRN niveau 300 (3) un cours en HIST ou CLAS 100 ou IDS 100 ou CATH 200 (3) FRN niveau 300 (3)	FRN niveau 300 (3) FRN niveau 400 (3) FRN niveau 400 (3) un cours en ECON ou GES** ou IS ou JS ou PCI ou PSYC ou SOC ou SOST ou WGST (3) cours au choix (3)
Session 7	Session 8
DART 315 (3) DESO 315 (3) DLNG 315 (3) ECSF 317 (3) EPSF 315 (3)	DEPH 315 (3) DMTH 315 (3) DMXE 315 (3) DSCI 315 (3) EPSF 325 (3)
Session 9	Session 10
EFLD 405 (internat) (15)	cours au choix (3) DFMM 400 ou DFMM 435 (3) DLNG 425 (3) EPSY 418 (3) EPSY 425 (3)
Notes: * sauf RLST 181, 184, 186, 188, 281, 284 ou 288 ** sauf GES 100, 120, 121, 309, 321, 323, 325, 327, 329, 333, 411, 421, 423, 429 ou 431	

Option A: Baccalauréat en Éducation Secondaire, (BacEd) (120 Crédits)	
Session 1 (Automne)	Session 2 (Hiver)
DELFI 151 (FR) (3) ECSF 100 (3) ENGL 100 ou FRN 352 (3) FRN 201/300/301 (3) mineure (3)	INDG 100 (FR) (3) ECSF 110 (3) FR niveau 200/300 (3) FRN 366 (3) mineure (3)
Session 3 - ULaval*	Session 4 - ULaval*
CSO 1903 (DLC 252) (3) FLS/FRN niveau 200 (3) FLS/FRN niveau 200/300 (3) FLS/FRN niveau 200/300 (3) mineure (3)	CSO 2902 (DLC 253) (3) DID 1060 (1) ENS 1950 (2) <u>ENS 1951 (3)</u> FLS/FRN niveau 200/300 (3) FLS/FRN niveau 200/300 (3) mineure (3)
Session 5	Session 6
DLNG 300 (3) ECSF 317 (3) E (mineure) (3) EPSF 300 (3) mineure (3)	DFMM 350 (3) DFRN 351 ou cours au choix (3) DLNG 351 (3) Élective (3) EPSF 350 (3)
Session 7	Session 8
EFLD 400 (internat) (15)	cours au choix (3) DFMM 400 ou DFMM 435 (3) EPSY 418 (3) EPSY 425 (3) cours au choix (3)

Option B (5 Ans): Baccalauréat en Éducation Secondaire et BA (Français études francophones et interculturelles) (150 Crédits)	
Session 1 (Automne)	Session 2 (Hiver)
DELFI 151 (FRN 200L BA) (3) ECSF 100 (3) ENGL 100 ou FRN 352 (3) FRN 201 (3) mineure (3)	INDG 100 (FR) (3) ECSF 110 (3) FRN 300 (3) FRN niveau 200 (3) mineure (3)
Session 3 - ULaval*	Session 4 - ULaval*
CSO 1903 (DLC 252) (3) FRN 301 (3) FRN niveau 246 (3) FRN 366 (3) mineure (3)	CSO 2902 (DLC 253) (3) DID 1060 (1) ENS 1950 (2) <u>ENS 1951 (3)</u> FRN niveau 200 (3) FRN niveau 300 (3) mineure (3)
Session 5	Session 6

Option B (5 Ans): Baccalauréat en Éducation Secondaire et BA (Français études francophones et interculturelles) (150 Crédits)	
FRN 236 (3) FRN niveau 300 (3) un cours en ANTH ou RLST * (3) sciences naturelles (3) un cours en ECON ou GES** ou IS ou JS ou PSCI ou PSYC ou SOC ou SOST ou WGST (3)	un cours de ENGL 110 ou PHIL 100 ou SOST 110 (3) FRN niveau 400 (3) FRN niveau 400 (3) MATH 101 (FR) (3) beaux-arts (3)
Session 7	Session 8
DLNG 300 (3) ECSF 317 (3) EPSF 300 (3) E (mineure) 300 (3) mineure (3)	DFMM 350 (3) DFRN 351 ou cours au choix (3) DLNG 351 (3) Élective (3) EPSF 350 (3)
Session 9	Session 10
EFLD 400 (internat) (15)	cours au choix (3) DFMM 400 ou DFMM 435 (3) EPSY 418 (3) EPSY 425 (3) un cours en HIST ou CLAS 100 ou IDS 100 ou CATH 200 (3)
Notes: * sauf RLST 181, 184, 186, 188, 281, 284 ou 288 ** sauf GES 100, 120, 121, 309, 321, 323, 325, 327, 329, 333, 411, 421, 423, 429 ou 431	

Rationale: These changes reflect:

1. The 201530 discontinuance of Français/French major which was replaced with études francophones et interculturelles/French and Francophone Intercultural Studies major.
2. The courses recently created at Université Laval, as indicated below:

ENS 1951 – Stage d’exploration en contexte québécois (secondaire)

Ce stage permet aux stagiaires du Programme spécial de formation à l'enseignement en milieu minoritaire de poursuivre leur exploration de la profession enseignante au secondaire en vivant des expériences dans un milieu scolaire majoritairement francophone pour nourrir leur réflexion sur les enjeux propres au contexte d'enseignement francophone minoritaire. Lors de la supervision universitaire, un environnement favorable est offert afin de poursuivre leur développement langagier à l'oral pour les aider à devenir de meilleurs modèles langagiers et de les sensibiliser à certains aspects des cultures francophones, au rôle de passeuse et de passeur culturel et d'ambassadeur et d'ambassadrice de la francophonie.

ENS 1951 - Exploration Internship in a Quebec Context (Secondary)

This internship allows trainees from the Special Training Program for Teachers in a Minority Setting to continue their exploration of the secondary school teaching profession by living experiences in a predominantly French-speaking school environment to nourish their reflection on the issues specific to the French-speaking educational minority. During university supervision, a favorable environment is offered in order to pursue their oral language development to help them become better language models and to make them aware of certain aspects of Francophone cultures, the role of cultural facilitator and facilitator and ambassador of the Francophonie.

ENP 1951 – Stage d’exploration en contexte québécois (préséc/primaire)

Ce stage permet aux stagiaires du Programme spécial de formation à l'enseignement en milieu minoritaire de poursuivre leur exploration de la profession enseignante au préséc./primaire en vivant des expériences dans un milieu scolaire majoritairement francophone pour nourrir leur réflexion sur les enjeux propres au contexte d'enseignement francophone minoritaire. Lors de la supervision universitaire, un environnement favorable est offert afin de poursuivre leur développement langagier à l'oral pour les aider à devenir de meilleurs modèles langagiers et de les sensibiliser à certains aspects des cultures francophones, au rôle de passeuse et de passeur culturel et d'ambassadeur et d'ambassadrice de la francophonie.

ENP 1951 – Exploration internship in a Quebec context (preschool/primary)

This internship allows trainees from the Special Training Program for Teachers in Minority Settings to continue their exploration of the preschool/elementary teaching profession by living experiences in a predominantly French-speaking school environment to nourish their reflection on the issues specific to the minority francophone education. During university supervision, a favorable environment is offered in order to pursue their oral language development to help them become better language models and to make them aware of certain aspects of Francophone cultures, the role of facilitator and cultural facilitator and of ambassador and ambassador of the Francophonie.

(end of Motion)

4. FACULTY OF ENGINEERING AND APPLIED SCIENCE**4.1 Program Revision – Environmental Systems Engineering**

MOTION: To update the Environmental Systems Engineering (EVSE) program, effective 202320.
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Remove ENEV 484 from the EVSE elective list and replace with ENEV 482. Page 214 of 2022-2023 Undergraduate Calendar.

Approved Electives (these electives may not be offered regularly):

Choose at least two design courses (at least two electives will be offered in each academic year) from the following: ENEV 408, ENEV 445, ENEV 463, ENEV 465, ENEV 475, ENEV 484 <u>ENEV 482</u>
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Choose one elective from the following (these electives may not be offered regularly): ENGG 411, ENIN 350, ENIN 453, ENIN 455, ENPE 490 or one from the design electives above.
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Choose at most one from the following: BUS 260, BUS 302, ENEL 280
--

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

Rationale: ENEV 484 has been an elective in transportation engineering and has been taught by sessional since 2017. The EVSE program would like to re-offer this course when teaching resources are available.

(end of Motion)

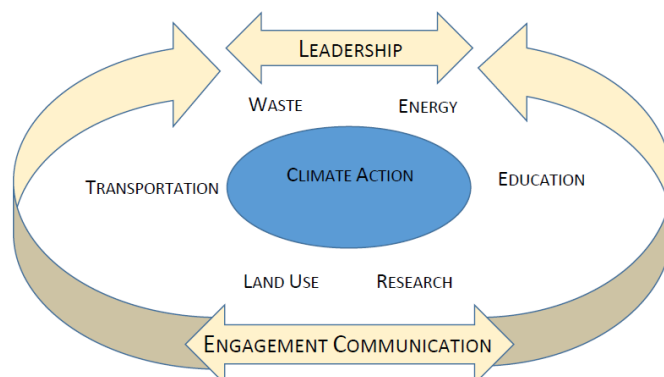
Summary: Sustainability Action Plan 2022-2027

Introduction:

The University of Regina is committed to sustainability as outlined in nine theme areas of focus. Five of the areas of focus remain unchanged from the *Strategic Plan for Sustainability 2015-2020* and they are leadership, waste, energy, transportation, and community & engagement. The Sustainability Action Plan 2022-2027 has four additional areas of focus: climate action, education, research, and land use. The Plan aligns with the 2020-2025 Strategic Plan *All Our Relations: kahkiyaw kiwâhkômâkaninawak* and the 2020-2025 *Research Action Plan* that include various sustainability and climate action measures. Equity, diversity and inclusion, and reconciliation are core principles which were prioritized throughout the planning and development of the Sustainability Action Plan. These principles also align with the United Nations Sustainable Development Goals, the *Truth and Reconciliation Commission Calls to Action*, and the *United Nations Declaration on the Rights of Indigenous Peoples*.

The actions in this plan are intended to move beyond aspirations to action, and require a collective, whole-institution approach. As part of the implementation of the University's Strategic Plan and the Research Action Plan, the University committed to a 25% reduction in greenhouse gas emissions, waste production and water consumption. To transition the campus to a model of sustainability and community engagement, the aim of this plan is to encourage individual students, staff, faculty, alumni and community members to engage with the plan, as well as faculties and units to set their own sustainability goals through their strategic plans that impact the larger institutional sustainability agenda. The University welcomes the continued participation of the three federated colleges: Campion College, First Nations University of Canada, and Luther College. Together we are aligned and well-positioned to support current and future learners and to advance local, national and global solutions that address the complexity of climate change through our campus operations, teaching, research and community engagement, and with our partnerships with governments, business, and civil society.

While progress has been made since the last strategic plan in moving closer to our sustainability goals, some goals and actions are longer-term. This plan is a living document, and allows us to remain open to make adjustments as new information and opportunities become available. We will continue our work in these areas to achieve more successes in the next five years.



Climate action is a call to action for every citizen of every nation to work individually and collectively to address climate change as the situation on planet earth is critical. This will require in some cases major institutional and technological changes. What is more, with the *Truth and Reconciliation Commission Calls to Action* and the *United Nations Declaration on the Rights of Indigenous Peoples* there is a strong call for meaningful engagement with Indigenous peoples. To contribute sustainable and equitable climate solutions, new collaborations and processes are needed that take a whole institution approach and to ensure that Indigenous peoples, the original caretakers and traditional keepers of the territories in which our campuses reside, are represented in campus planning and decision making from the earliest stages of project planning to implementation.

The following three sections are a summary of key sustainability actions arising from the core principles and the working groups.

1. Build capacity and advance sustainability on campus and in our communities

Key actions:

- Create a Sustainability Office to lead and coordinate environment and climate action efforts and to support the development and delivery of sustainability initiatives in meeting the University's strategic goals. An Advisory Committee that includes Indigenous leadership will provide guidance to the Sustainability Office's work and help to identify barriers to implementation.
- Review the actions in the "Engagement Summary" (See Appendix) in relation to current context and future vision (priorities, cost, resources, and core principles of EDI and reconciliation), and prioritize measurable actions to advance forward.
- Produce an annual progress report on the Sustainability Action Plan goals.
- Develop a performance measurement framework to set and monitor targets, and publicly report on progress.
- Work with faculties, centres/institutes and administrative departments to incorporate sustainability accomplishments in annual reports.
- Enhance engagement with our varied communities including engaging student leadership through the University of Regina Students' Union, Campion College Students' Union, First Nations University of Canada Student Association, and Luther University Student Association, and leverage networks in the public, private and non-profit sectors working to implement social and technical sustainability solutions and to better position the University as a resource to help in solving issues.
- Early and ongoing meaningful Indigenous engagement that takes into account the realities faced by Indigenous communities and Nations, respects Indigenous rights, cultures and knowledge systems, and supports Indigenous-led climate solutions.

(Theme areas: Leadership, Communication and Engagement, Climate Action)

2. Expand environment and climate action efforts to reduce greenhouse gas emissions, waste production, and water consumption

Key actions:

- Support and advocate for the use of campus research, teaching, demonstration and implementation of projects into campus operations using a living lab framework.
- Evaluate decision-making policies and procedures to address institutional barriers and align with the University's strategic goal to implement changes to achieve a 25% reduction in greenhouse gases, waste production and water consumption, such as around building use, landscaping, vegetation planning and water management.

- Identify and champion best practices that educate and transform our use of resources across their full lifecycle, such as wise use of water, heat and electrical utilities, finance and procurement, transportation, and waste management.
- Invest in water saving measures.
- Develop research projects on campus for power generation and living lab applications (e.g. installation of a micro-grid living lab).
- Work with researchers, labs and faculties to create a centralized lab and equipment sharing model for equitable lab access and training/research opportunities.
- Support multi-modal transportation choices.

(Theme areas: Leadership, Climate Action, Communication and Engagement, Education, Research, Energy, Land Use, Transportation, Waste)

3. Integrate sustainability in teaching, research and operations, and enhance engagement, in a way that honours and includes all people, and is mindful of the campus vision and the UN's 17 Sustainable Development Goals, the Truth and Reconciliation Commission Calls to Action, and the UN Declaration on the Rights of Indigenous Peoples

Key actions:

- Ensure our teaching, research and operations are grounded in core principles of equity, diversity and inclusion, and reconciliation, in sustainability planning and implementation.
- Include Indigenous peoples in projects from planning to implementation, and to ensure proper protocols are followed.
- Engage faculty and academic units in reviewing degrees and including sustainability in their courses (e.g., workshop series on the SDGs and Education for Sustainable Development in the curriculum).
- Obtain external funding and explore creative ideas to support sustainability projects and initiatives by students, staff and faculty (e.g., Sustainability and Community Engagement Fund).
- Identify and promote current research projects that encourage campus sustainability.
- Create a public inventory of our sustainability and climate change projects to encourage student recruitment and experiential learning opportunities.
- Develop and implement sustainable marketing campaigns and build sustainability into the recruitment/orientation process (e.g., student-focused events/activities).
- Explore land use, including Indigenous ceremonial space, outdoor classrooms, meeting areas and recreation spaces for the community to gather.

(Theme areas: Leadership, Climate Action, Communication and Engagement, Education, Research, Energy, Land Use, Transportation, Waste)

Process:

The strategic planning process began in 2021, with the creation of nine working groups, each led by members of the President's Advisory Committee on Sustainability (PACS). Minimally, each group included a member of PACS, a staff member, a faculty member, and a student when possible. The goal was to engage anyone interested in participating and to ensure it represented students, staff, and faculty. After a University-wide call for participation was issued, students, staff, faculty and alumni from the University and the three federated colleges volunteered for the working groups and attended a virtual information and orientation session.

Along with a list of action items, the working groups were asked to consider a list of questions in the thematic group framework, and to produce a roadmap for each area. The groups met several times to incorporate various views and ideas for each area of focus. Using a variety of engagement methods (surveys, virtual meetings, etc.) the working groups prepared/reviewed a mission for each area of focus, identified issues and concerns and current state, and considered opportunities and priorities. Then an initial draft was presented to PACS and further consultation will be sought to review the many ideas and actions proposed. Selected actions will then be brought forward by the Sustainability Office for consideration and prioritization for implementation. This work will inform the key components of the Sustainability Action Plan.

DRAFT

Acknowledgements:

The President's Advisory Group on Sustainability is grateful to the many individuals who took the time to attend the information session and participate in the working groups, and for the support of this plan from the Offices of the Provost and Vice-President (Research).

Sustainability Action Plan Facilitation Team:

Dr. Supriya Bhat, Darren Cherwaty, Jocelyn Crivea, Dr. Janis Dale, Dr. David Gregory, Ray Konecsni, Gurjinder Singh Lehal, Erin Limacher, Dr. Kathy McNutt, Neil Paskewitz, Dr. Roger Petry, Jeffery Raymond, Carol Reyda, Courtney Stange, Mahnoor (Noor) Tajik, Brett Waytuck, Dr. Stephanie Young

Links:

University of Regina Strategic Plan (2020)

<https://www.uregina.ca/strategic-plan/>

Research Action Plan (2021)

<https://www.uregina.ca/research/assets/2021-2025-VP-Research-Office-Research-Action-Plan-Final.pdf>

President's Advisory Committee on Sustainability Thematic Group Framework (2021)

<https://www.uregina.ca/president/campus-sustainability/2021-26-Sustainability-Action-Plan/index.html>

Truth and Reconciliation Commission of Canada: Calls to Action (2015) <https://nctr.ca/records/reports/>

United Nations Sustainable Development Goals (n.d.) <https://sdgs.un.org/>

United Nations Declaration on the Rights of Indigenous Peoples (2011)

https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf

University of Regina Sustainability (n.d.) <https://www.uregina.ca/president/campus-sustainability/index.html>

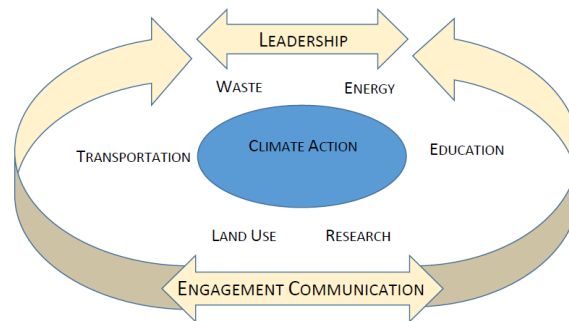
Appendix
President's Advisory Committee on Sustainability
Sustainability Action Plan Engagement Summary 2022

Process:

The strategic planning process began in 2021, with the creation of nine working groups, each led by members of the President's Advisory Committee on Sustainability (PACS). Each group included a member of PACS, a staff member, a faculty member, and a student when possible. The goal was to take a whole-institution approach and include anyone interested in participating. After a campus-wide call for participation was issued that included Campion College, First Nations University of Canada, and Luther College, and the University of Regina Students' Union, students, staff, faculty and alumni volunteered for the working groups and attended an information and orientation session.

The working groups were asked to consider a list of questions and produce a roadmap of action items for each area:

1. Describe the sustainability issues/problems of their thematic area.
2. Describe what has been done at the UofR to date to advance sustainability and decrease environmental impact.
3. Recommend actions.



Each group met several times to incorporate various views and ideas for each area of focus. Using a variety of engagement methods (surveys, virtual meetings, etc.) the working groups prepared and reviewed a mission for each area of focus, identified issues and concerns and current state, and considered opportunities and priorities. Then an initial draft was presented to PACS and further consultation was sought to consider the many ideas and actions proposed.

Areas of Focus – What We Heard:

The tables in the following sections include example actions for each topic: leadership, engagement and communication, climate action, education, research, energy, land use, transportation, and waste. Some actions may be integrated from across multiple areas. Actions may be broad or specific, and timeframes are suggested as follows:

Ongoing – throughout the five-year life of this plan

Short – one to two years

Medium – two to three years

Long – up to five years

PACS is grateful to the many individuals who took the time to attend the information session and participate in the working groups. A wide variety of feedback from the campus community was received. The content from this summary has been reviewed by PACS. The next step will entail reviewing these current and proposed actions and ideas in relation to the current context and future state. Selected actions will then be brought forward by the Sustainability Office for consideration and prioritization for implementation. This work will inform the key components of the Sustainability Action Plan.

Areas of Focus – Working Group Summaries:

1. Leadership

Leadership is about vision and influence, and it is also about taking action in the everyday, locally and globally, to advance the health and well-being of people and the planet. Leadership is also accountable and flexible, and allows decisions to be made within the current contexts. Good leadership permit us to capitalize on emerging opportunities and identify changes with respect to planning and proposed outcomes.

Four leadership challenges were identified by the working group:

1. How might we ensure adequate resources and funding for sustainability initiatives?
2. How might we connect and engage students, faculty and staff in sustainability action?
3. How might we reduce barriers to new sustainability initiatives, and develop a culture of change?
4. How might we create a culture of strong sustainability leadership and ensure accountability among leaders?

The following actions are a response to these challenges, and are categorized into the sub-themes of Leadership, Resources, Accountability, Change Management, and Engagement.

Each action/goal would include Indigenous representation in planning and implementation. Top ranking priorities:

POTENTIAL ACTION/GOAL	TIMELINE	EXAMPLE MEASURES
Create a Sustainability Office tasked to collaborate with the University community and assist the UofR to meet its strategic goals (UR Strategic Plan, Sustainability Action Plan). (Leadership and Resources)	Immediate	Sustainability Office is staffed and operational.
Review the actions in the Sustainability Action Plan, with consideration to overall priorities, cost, and resources. (Leadership)	Medium Ongoing	Progress on action plans monitored by the Sustainability Office.
Report widely to the public on progress made on the University Strategic Plan's environmental sustainability goals, the Sustainability Action Plan, and Climate Action. (Accountability)	Short, Ongoing	Sustainability Office will produce an annual report.
Develop a performance measurement framework for sustainability at the UofR. Track and communicate the performance measures. (Accountability)	Medium	Sustainability Office develops and reports out on the performance measurement framework, at least yearly in an annual report.
Include Faculties, institutes and administrative departments in the reporting of sustainability accomplishments in respective annual reports. (Accountability, Engagement)	Medium	Deans, Institute Directors, and AVPs annually report sustainability activities and accomplishments.
Reduce institutional barriers that may impede change and sustainability action. (Leadership, Change Management)	Medium	Process created. Process communicated at least annually.

Create and implement a training program for faculty and staff; Focus of training (leadership, climate change, integrating sustainability into course content) to be developed in consultation with the advisory committee. (Leadership, Change Management, and Engagement)	Medium	Educational Program is operational; # of participants are reported in annual report.
Establish a sustainability donation fund for community, faculty, and staff giving. (Resources)	Immediately	Fund is created. Fund is visible on the UAC website and linked to the Sustainability website.
Explore funding for faculty, students, and staff for sustainability teaching, research, and operational initiatives (e.g. Sustainability and Community Engagement Fund). Obtaining funding external to the University is a priority. (Resources)	Short	Annual report summarizes funded sustainability projects and initiatives.

2. Engagement and Communication

The University of Regina has done – and continues to do – considerable work in the area of sustainability. However, more work to profile and celebrate sustainability research, teaching, and action is needed. Enhanced engagement with our varied communities is also required in order to better position the University as a resource to help in solving issues that impact us all.

Recognizing that our commitment to sustainability is a collective responsibility and recognizing the University's responsibility to the original caretakers and traditional keepers of the territories in which our campuses reside, students, faculty and staff should have the opportunity to lead by example, engage their respective communities, and help to widely promote their own work and that of their colleagues and friends.

The Communications and Engagement Working Group put forward a list of priorities that will help the University to better communicate with and engage our various communities in our efforts to become a more sustainable institution and a leader in sustainability research, teaching and action.

Top ranking priorities:

POTENTIAL ACTION/GOAL	TIMELINE	EXAMPLE MEASURES
Develop and implement an inclusive sustainability champions network, which is developed in consultation with Indigenous community members.	Short	<ul style="list-style-type: none"> ● Champions' network is in place with regular meetings scheduled.
More active communications, increased engagement, showcasing efforts in sustainability, including showcasing Indigenous led initiatives, is recommended.	Medium	<ul style="list-style-type: none"> ● Conduct a review of current communications materials to ensure stories about sustainability are incorporated. ● Consider revisions to delivery of communications pieces to ensure sustainable practices ● Enhance communications to students and provide increased opportunities for student engagement
Establish the University as a leader in sustainable practice and research by enhancing alignment with United Nations' Sustainable Development Goals (SDG) and UNDRIP articles as related to Sustainable Development and Environmental Change.	Medium	<ul style="list-style-type: none"> ● Use SDG symbols within University stories/content as it aligns with SDG, TRC Calls to Action and UNDRIP ● Host a conference on sustainability (incorporate SDG within framework); conference itself must be sustainable ● Communicate value in policies / processes from a sustainability perspective
Develop and implement sustainable marketing campaigns and build sustainability into the recruitment/orientation process.	Medium	<ul style="list-style-type: none"> ● Incorporate sustainability into marketing practices ● Incorporate sustainability into marketing content ● Build sustainability into student-focused events/activities

3. Climate Action

Climate action is a call to action for every citizen of every nation to do their part to address climate change as the situation on planet earth is critical. This will require in some cases major institutional and technological changes. Climate Action is central to themes of the Sustainability Action Plan and the following section helps to address and prioritize the changes we need to implement to meet the climate challenges we face.

Preamble

On December 6, 2019 the University of Regina Council passed two motions related to Climate Action and Environmental Stewardship.¹

Whereas global temperatures are increasing, and this increase is caused primarily by anthropogenic GHG emissions, and whereas climate change is disrupting human society and global ecosystems placing us in a climate emergency. We commit to act on climate by moving towards a zero GHG emissions future through our campus operations, teaching, research, and community engagement. In these ways we will contribute to the nation's net-zero commitment by 2050.

Mission

The Climate Action Working Group will ensure policies and actions at the University of Regina reduce GHG emissions to zero, consistent with the climate emergency confronting us and Sustainable Development Goal 13, Climate Action. In doing so, special attention will be given to articles pertaining to lands, waters, and the environment as outlined in the United Nations *Declaration on the Rights of Indigenous Peoples* (UNDRIP) and informed by Indigenous input.

The goals and priorities in the table below fall into the following categories: Climate Change Mitigation, Understanding the Scale, Scope, and Timeline of Climate Change, Create Full-time Sustainability Personnel on Campus, and Climate Action Accountability.

Top ranking priorities:

POTENTIAL ACTION/GOAL	TIMELINE	EXAMPLE MEASURES
Set a date for the achievement of zero GHG emissions on campus at the U of R. Suggested date: 2040. (Climate Action Accountability)	Short	The University has publicly committed to a goal of reaching zero GHG emissions by 2040.
Support and advocate for the use of on campus research, teaching, demonstration, and implementation of climate change mitigation projects into campus operations. (Climate Change Mitigation)	Medium	Establish a process to implement projects into campus operations. Viable projects are utilized after completion in campus operations.

¹**Motion 5.2.1** That Council recommend to the President that the University of Regina recognizes that we face a climate emergency and commits to being a leader in our community through climate action for decarbonization.

Motion 5.2.2 That Council recommend to the President that the University of Regina monitor and publicly report the University's resource composition (energy and water use, waste generation, GHG emissions, and other environmental metrics) each year, and set targets within each institutional strategic plan to improve the outcomes of these metrics.

POTENTIAL ACTION/GOAL	TIMELINE	EXAMPLE MEASURES
Promote and advance climate change teaching, research, and engagement from all levels of students, faculty, and staff. (Understanding the Scale, Scope, and Timeline of Climate Change)	Medium	# of Faculties, classes, research projects, events that incorporate climate change/action increases annually
Create a training module for faculty, staff and students to complete online in regards to climate action. (Climate Action Accountability)	Medium	A mandatory training module is created for staff, faculty and students to complete (training required every 3-4 years). The Sustainability Office will review the Assembly of First Nations Report: An Introduction to the Science of Climate Change to develop the training module. Survey is sent out to gauge understanding of climate change
Explore renewable energy sources internally and externally with stakeholders across the U of R including Indigenous communities and Nations. (Climate Change Mitigation)	Ongoing	The University implements living lab renewable energy pilot projects and processes to reduce GHG emissions
Create a centralized resource for climate change awareness events and educational opportunities. (Understanding the Scale, Scope, and Timeline of Climate Change)	Medium	There is an easy to find page from the U of R homepage that contains climate change information related to the U of R

EDUCATION

4. Education

The Education Working Group embraced the following mission: *We will promote and support education for sustainable development: action-oriented education that includes climate education, in all disciplines, educational contexts, in a way that honours and includes all people, and is mindful of the campus vision for sustainability and the UN Sustainable Development Goals, the Truth and Reconciliation Commission Calls to Action, and UNDRIP recommendations.*

The group considered the following topics to help guide discussion:

- How the campus can mobilize existing resources for sustainability initiatives (a question of building capacity)
- Processes to become aware of those resources and how to experiment with these to make best use of them
- Light-weight initiatives that organize and make use of underutilized human, natural, physical, and financial resources in new ways for sustainability
- New forms of networking/social capital and living laboratories across campus that are mutually reinforcing
- Potential goals for the working group:
 1. Practical projects allow for immediate action and create resources for sustainability initiatives over the long term.
 2. Projects that have straightforward leads within the university and federated colleges tied to the knowledge and skills involve and can mobilize volunteers from across campus.
 3. Supports the University of Regina's commitment to Responsible Production and Consumption (SDG12) by focusing on how we are generating and using diverse resources.
 4. Creates an integrative campus culture of sustainability that crosses silos.

Top ranking priorities:

POTENTIAL ACTION/GOAL	TIMELINE	EXAMPLE MEASURES
Create a project repository for capstone projects on sustainability and make it widely available, and develop a funded/course credit student internship program for students working with units on campus and/or community to implement projects; program will be informed by Indigenous ways of knowing and include Elders, Knowledge Keepers, Indigenous Scholars, and Indigenous students from development to implementation. (Formal education)	Medium	Project reports are documented and available through the Sustainability Office; Internship program is established and offered.
Create a workshop series on sustainable lifestyle/living strategies including appropriate technologies and tied to student projects learnings/outcomes/demonstration projects (e.g. rain barrels and optimized water use, solar cooking, bicycle maintenance); and catalogue these small scale appropriate technologies for sustainable living/lifestyles. (Public awareness)	Medium	The University of Regina offers training to students, faculty, staff, and community members in easy to use, appropriate technologies that include Indigenous knowledges with substantial social, economic, and ecological impacts. (# of workshops)

POTENTIAL ACTION/GOAL	TIMELINE	EXAMPLE MEASURES
Engage sustainability in the curricula. This may include: alter course development form to include section detailing how course could incorporate sustainability principles/pedagogy/content; review degrees to ensure that programs (e.g. core curriculum or working with other institutions) engages a range of sustainability literacies (environmental and social) including SDGs in the syllabi of core courses; provide support/orientation (e.g. workshop series on the SDGs) to Faculty on how to incorporate sustainability into their curricula/assignments (where possible, promote credit for taking part in sustainability initiatives around campus) and assess how and/or what they are already doing advances sustainable development/SDGs; and lastly, prepare report/policy brief (including best practices from other jurisdictions and is informed by Indigenous Scholars, and Indigenous knowledges (e.g. storytelling as it relates to climate change). (Formal education)	Long	Consult with Deans and Faculty members. Measures may include: completion of altered course development form on consultation with deans, # of course syllabi referencing SDGs, kinds and # of supports, Completion of workshop(s) and # of attendees by organization; prepare report/policy brief
Contact the current departments with courses in the Certificate in Sustainability to identify relevant SDGs within their courses and include within their syllabi along with other sustainability content/issues and invitation of other faculties to add course. (Formal education)	Medium/ Long	% of courses in certificate referencing SDGs in syllabi
Develop a comprehensive capstone course allowing students to bridge degree to their career reflecting on how to impact sustainability in their area of focus/vocation/career. (Formal education)	Medium/ Long	# of capstone courses

5. Research

The Research Working Group (RWG) met to identify actionable goals within the research enterprise related to sustainability and climate action. These actions will be used in the 2022-2026 Sustainability Action Plan. Further, the Vice-President Research's five-year *Research Action Plan* will guide the implementation of the University of Regina's Strategic Plan: kahkiyaw kiwâhkômâkaninawak across the research enterprise. The Research Action Plan committed to building alliances with Indigenous communities that facilitate accountable research and support Indigenous researchers. The actions identified by the RWG would also be implemented within this plan. U of R researchers play a significant role in advancing sustainability on campus and in our communities, building our capacity to conduct research that ensures a sustainable future for all.

The goals and priorities in the table below established by the RWG fall into the following categories: University of Regina's Research Footprint, Encouraging Sustainability Student Recruitment and Engagement, and Our Sustainability Research Impact.

Top ranking priorities:

POTENTIAL ACTION/GOAL	TIMELINE	EXAMPLE MEASURES
Work with researchers, labs, and faculties to create a sustainable labs guide sheet and template to evaluate and adjust current research practices. (U of R's Research Footprint)	Ongoing	Faculties have sustainable lab guides and have evaluated current practices Students are required to read the sustainable lab guide (as applicable to their lab work)
Work with FGSR and faculties to encourage recruitment of students with a focus on climate change or sustainability- focused research. (Encouraging Sustainability Student Recruitment and Engagement)	Ongoing	# of Masters and PhD students whose research is related to climate change or sustainability is measured # of Masters and PhD students whose research related to climate change or sustainability increases annually
Identify and promote current research projects that promote campus sustainability. (Sustainability Research Impact)	Short Term & Ongoing	Process is created to identify and promote current projects that promote campus sustainability Projects are promoted through multiple sources (campus TVs, website, etc.)
Work with Supply Management Services, labs, and related partners e.g., FNUniv, UofS, and SaskPoly to leverage purchasing power related to purchasing sustainable laboratory materials from suppliers. (U of R's Research Footprint)	Medium	Sustainable options for lab materials are identified U of R begins purchasing sustainable lab materials

POTENTIAL ACTION/GOAL	TIMELINE	EXAMPLE MEASURES
Work with FGSR, RPIRG, IPHRC, Saskatchewan Network Environment for Indigenous Health Research, U of R Research Institutes/Centres, and other key stakeholders, including Indigenous Scholars, Elders and Knowledge Keepers, to highlight current sustainability research incentives and identify areas for further incentives in sustainability/climate research such as an interdisciplinary graduate program and scholarships or fellowships. (Encouraging Sustainability Student Recruitment and Engagement)	Medium	Current and further incentives are identified Related graduate program established # of scholarships/fellowships is tracked and increases annually
Implement and promote citizen science/living labs. (Our Sustainability Research Impact)	Ongoing	Living labs are identified and promoted # of living labs participants is tracked and increases annually
Evaluate our research travel and policies to examine the implementation of an offset system or other best practices, promote virtual talks and meetings, and identify other travel alternatives (U of R's Research Footprint)	Medium	Best practices are identified Virtual events and virtual conference attendance is promoted
Encourage membership among the research community in sustainability and climate action related groups on campus such as U of R Research Institutes and Centres, RCE-SK, RPIRG. (Encouraging Sustainability Student Recruitment and Engagement)	Ongoing	Members are engaged in Institutes/Centres and the # of members increases as related to sustainability and climate change
Introduce a micro-grid living lab on campus. (Our Sustainability Research Impact)	Long	Related capacity increases and a micro grid is established on campus (or near establishment)
Work with researchers, labs, and faculties to create a centralized lab and equipment sharing model for equitable lab access and training/research opportunities. (U of R's Research Footprint)	Medium	Process for lab access, training and research opportunities is equitable Centralized lab is operational (or nearly operational)
Create a public inventory of our sustainability and climate change research portfolio. (Encouraging Sustainability Student Recruitment and Engagement)	Short	Our research portfolio related to sustainability and climate change is publicly available (via website, campus TVs, or report)
Enable reporting and tracking of climate change and sustainability research successes. (Our Sustainability Research Impact)	Short	Process is created for reporting on climate change/sustainability research successes # of reported research success increases and is promoted annually

6. Energy

Climate change requires rethinking and retooling the manner in which the University makes decisions and provides opportunities to explore alternative energy sources and practical applications. These include natural/renewable energy sources, such as wind, geothermal, and solar energy, which can be used directly for practical and applied uses on campus.

The Energy Working Group met to identify actionable goals around becoming more energy efficient and reducing our GHG emissions. The group's mandate was to describe the sustainability issues/problems of energy use, review what has been done at the University to date to advance sustainability and decrease environmental impact with respect to energy use, and to recommend action.

The working group discussed a number of positive steps that have already taken place, and identified issues/problems that have prevented us from moving forward in creating and maintaining sustainable energy use at the University.

The issues discussed were grouped into 5 standardized challenges or categories:

1. Awareness and Communications
2. Resistance to Change
3. Need for Master Planning
4. Need for Short Term Solutions
5. Not Enough Funding

The list of solutions were consolidated into the following areas:

1. Awareness and Communications
 - a. Create Energy Manager to enable focus
 - b. Formalize advisory committee communications
 - c. Promote Project Success
2. Need for Master Planning
 - a. Consider full life cycle costing and resilience.
 - b. Environmental scan for best practices.
 - c. Proceed with the long term goal in mind.
 - d. Space Utilization Optimization
3. Need for Short Term Solutions
 - a. Chilled Water / Heat Storage
 - b. Create standards for design and operations.
 - c. Deep retrofit on worst energy performers
 - d. Lighting Retrofit and Daylighting
 - e. Natural Ventilation
 - f. Solar/Wind Pilot Projects
 - g. Steam/Hot Water Conversion
4. Not Enough Funding
 - a. Higher institutional prioritization for carbon reduction
 - b. Partnerships - Federal, Provincial, Municipal, First Nations, Métis, Private
 - c. Performance Contracting
 - d. Revolving Fund
5. Resistance to Change
 - a. Develop Energy Champions
 - b. Encourage through rewards for participation and results.
 - c. Create contests between units

After review and ranking of the potential solutions, the following items were identified as top ranking priorities:

POTENTIAL ACTION/GOAL	TIMELINE	EXAMPLE MEASURES
Create a transparent revolving fund that will reinvest savings from energy efficiency projects and waste reduction measures, to fund continuous sustainability improvements.	Short	Step 1 is to create an internal resource to target energy savings, minimize future capital renewal expenses, reduce operating costs and recommend energy saving projects. This resource will quantify savings achieved to leverage further capital requests for continuous improvement measures. The job description has been created, funding has been approved and the Energy Position filled in summer 2022.
Proceed with the Long Term Goal in Mind, and Consider Full Life Cycle Costing and Resilience - Establish criteria for selection of projects and equipment upgrades that considers full cost of ownership and contribution toward the ultimate goal of net zero emissions.	Short	The <u>Technical Pathways Study</u> is a sustainable utilities master plan that will provide recommendations on how the U of R can achieve 25% reduction in utility electricity, heating/cooling, and water consumption by 2025 with an ultimate goal of net zero greenhouse gas emissions by 2040. Phase 1 is a Conceptual Report that defines energy usage and priority options that may form part of a technical pathway, and was completed in March, 2022. Phase 2 is the Technical Pathways Report that will develop a clear understanding of the Campus energy infrastructure potential and the energy source solutions. The report is expected in 2022-23.
Explore Quick Win Solar/Wind Projects for power generation and living lab applications, including consulting with Indigenous communities and Nations working in this area.	Medium	Phase 1 is Project Approval, and includes RFP, evaluation and award of contract for technical and financial due diligence. This phase will establish project governance, potential partnerships and early planning approvals and is expected to be completed in 2022-23. Phase 2 is the Solar PV System Business Plan, which defines options for the installation of a solar photovoltaic (PV) system intended to offset GHS emissions. Includes feasibility and financial analysis, budget development, and implementation strategy. This phase will be completed in 2023.

ENERGY

Educate faculty, staff and students to optimize sustainable production and consumption of resources in relation to work places and residence infrastructure/features.
(Training)

Medium

Students and staff are advised (and possibly incentivized) to use offices, labs, dorm rooms, and other institutional assets optimally with wise use of utilities (e.g. water, heat, electricity) for sustainable living

LAND USE

7. Land Use

The physical landscape of the campus has been transformed with the introduction of the edible gardens and apiary, and provides opportunities for teaching, research and operations, and community engagement. These efforts inspire us to set priorities and implement solutions around buildings, land use, water management, and vegetation, and to pilot and scale sustainability solutions that can be adapted elsewhere.

The Land Use Working Group met to identify actionable goals around creating and maintaining sustainable land use. The working group's mandate was to describe the sustainability issues/problems of land use at the U of R, review what has been done at the U of R to date to advance sustainability and decrease environmental impact with respect to land use and to recommend actions.

The group discussed a number of positive steps that have already taken place, and went on to identify issues/problems that have prevented us from moving forward in creating and maintaining sustainable land use at the U of R. The issues discussed fell into 5 standardized challenges or categories:

1. Building Land Use
2. Change Management related to Land Use
3. Community Use of Landscapes
4. Vegetation Planning
5. Water Management

These categories were prioritized by the working group and the decision was to focus on a list of solutions that would address:

- Community Use of Landscapes
- Vegetation Planning
- Water Management

The list of solutions were consolidated into the following groups:

1. Create Outdoor Classrooms, Indigenous Ceremonial and Meeting Areas
2. Edible Gardens and Medicine Gardens
3. Grey Water Re-use
4. Irrigation Control
5. Master Planning
6. Permaculture
7. Plant Native Prairie Vegetation
8. Rain Water Collection
9. Recreation Spaces – Summer
10. Recreation Space – Winter
11. Reduce Pesticides

LAND USE

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After a discussion and prioritization exercise, the following three items were selected as top ranking priorities. Each action/goal would engage Indigenous peoples of the territories that the campuses reside on, and would have Indigenous representation in the planning and information phases and to help ensure proper protocols are followed.

POTENTIAL ACTION/GOAL	TIMELINE	EXAMPLE MEASURES
Create Outdoor Classrooms, Indigenous Ceremonial and Meeting Areas	Short	A planning study initiated by Facilities Management to examine appropriate locations along with scope/budget/schedule of the top prioritized locations. These recommendations will be prepared in 2023. Upon approval of the committee, the top ranked projects will be presented to UET for recommendation and capital approval.
Further Develop Edible Gardens and Medicine Gardens	Short	An additional high profile garden location has been identified and approved at the south side of the Education Building. Additional potential locations will be identified as part of the Campus Master Plan which will be completed in 2023. Top ranked projects will be presented to UET for recommendation and capital approval.
Create More Community Recreation Spaces	Short	A planning study will be initiated by Facilities Management to examine appropriate locations along with scope/budget/schedule of the top prioritized locations. These recommendations will be prepared in 2023. Upon approval of the committee, the top ranked projects will be presented to UET for recommendation and capital approval.

TRANSPORTATION

8. Transportation

With thousands of people going to and from the University of Regina on any given day, the University is responsible for supporting and using sustainable, multi-modal forms of transportation. This will not only reduce our carbon footprint but will enable the University to serve as a role model for the wider community and help meet the UN's sustainable development goals. The objectives highlighted below are targeted to create an infrastructure that will enable members of our campus community to make sustainable transportation choices so long as they do not create a barrier to student learning.

Each action/goal would have Indigenous representation in the planning and implementation phases. Top ranking priorities:

POTENTIAL ACTION/GOAL	TIMELINE	EXAMPLE MEASURES
<p>Explore ideas for infrastructure that promotes using bicycles as a viable transportation option.</p> <ul style="list-style-type: none"> ➤ Improve upkeep to on-campus bike repair stations. 	Medium	Regular inspections of bike repair stations show they are in good working order.
<ul style="list-style-type: none"> ➤ Improve/increase bike storage, security and lighting. 	Medium	Work with FM to ensure campus master plan is developed to meet this objective.
<ul style="list-style-type: none"> ➤ Enhance communications to promote bike culture at the U of R. 	Medium	3 communications sent per year.
<ul style="list-style-type: none"> ➤ Initiate campus wide survey to understand the current rate of those who drive vehicles to campus, those who bike to campus, and those who walk to campus and the reasons why they choose that form of transportation. 	Medium	Survey issued and analyzed.
<p>More direct bus routes to allow residents in all parts of the City to access the U of R in shorter time frames. Work with joint Facilities Management and City of Regina traffic committee to determine opportunities to improve bike route access to the U of R.</p>	Short	Hold first meeting in 2023.

TRANSPORTATION

Fossil fuel vehicle parking on campus is viewed as a last option to other means of sustainable transportation.

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| ➤ Provide sufficient charging stations on campus for electric vehicles. | Medium | Above ground charging station operational. |
| ➤ As the U of R fleet of fossil fueled vehicles ages, replace them with electric powered vehicles. | Medium | Electric vehicles are purchased. |
| ➤ Explore programs to incent faculty/staff and students to transition from driving to bussing. Explore external funding for this initiative. | Medium | Funding is allocated. |

Build goal to reduce conference travel into procurement policies and faculty funding incentives/policies to encourage remote attendance	Medium	% reduction in conference travel volumes
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9. Waste

We will champion practices that educate and transform our use of resources across their full lifecycle, exemplifying collaborative sharing of resources, waste reduction, reuse and recycling, and environmental mindfulness in all we do.

The Waste Thematic Working group identified and obtained statistics on our pre-pandemic waste consumption and waste generation figures. Using these metrics, we were able to identify several significant areas for improvement, however we felt some of the data gathered was too general and required more analysis to determine key contributors. Some sobering numbers included the consumption of over 70 million imperial gallons of water annually, 945 tonnes of waste sent to the landfill, along with equally sobering statistics for lab waste and so on.

First and foremost among our goals is change management, or educating the campus community on water and waste management and the impact our practices are having on the environment and community.

Each action/goal would have Indigenous representation in the planning and information phases. Top ranking priorities:

POTENTIAL ACTION/GOAL	TIMELINE	EXAMPLE MEASURES
Educate the campus and community on waste management, including waste production and reduction.	Short	Work with UAC and the Sustainability Office to provide messaging regarding our consumption, alternate practices or measures on how to reduce.
Conduct an in-depth analysis of our landfill contributions to determine what types of wastes are most commonly generated by the University to help us identify opportunities and priorities.	Short	Engage with URSU and appropriate Faculties to conduct analysis of our landfill contributions (paper, food waste, construction waste, coffee pods, Styrofoam, etc.).
Based on the above study results (goal #2), develop and design future waste minimization options or programs including composting, water and wastewater reclamation, printing, lawn irrigation and other recycling activities.	Short	Similar to above, identify the priorities or opportunities that will yield the best results. Develop appropriate metrics to measure progress and success.
Create a pilot project to determine amount of water that is able to be reclaimed and what could be supplied to meet campus needs by the implementation of stormwater and grey water reclamation systems.	Short	On a small scale, identify a pilot project to determine system capacity and what scale of capacity is required to provide this to campus.
Broader implementation of waste management options identified above. Examine results of the pilot projects for large scale composting, water reclamation, and broader recycling programs to determine relevant capacities and returns on investments.	Medium	From step three, and after reviewing other program success, continue to implement programs or systems towards a more sustainable campus. Continue to measure progress and make appropriate program changes as required.

POTENTIAL ACTION/GOAL	TIMELINE	MEASURES
Develop a campus event policy to minimize waste, and develop a resource document on greening UofR events	Short/ Medium	Creation of campus event policy and resource document
Full water reclamation implementation for irrigation purposes on campus, such as foliage replenishment, etc.	Long	Large scale water reclamation program launch. We should have now identified what our system requirements will need to be and can begin a phased implementation.
Establish sustainable procurement processes and policy on campus including tendering processes.	Medium	Creation of sustainable procurement campus policy
Establish Indigenous economic reconciliation measures and guidelines/regulations on campus including tendering processes that support sustainability	Medium	Established and implemented Indigenous Procurement Policy and education
Incorporate preferences for sustainable materials and recycling into procurement procedures and tendering	Medium	Increase in identified sustainable materials and volumes recycled

Sustainability Action Plan Working Group Leads:

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Resources:

University of Regina Strategic Plan

<https://www.uregina.ca/strategic-plan/>

Research Action Plan

<https://www.uregina.ca/research/assets/2021-2025-VP-Research-Office-Research-Action-Plan-Final.pdf>

President's Advisory Committee on Sustainability Thematic Group Framework, March 2021

<https://www.uregina.ca/president/campus-sustainability/2021-26-Sustainability-Action-Plan/index.html>