

CCAM Response Template

Response and Implementation

On receipt of the report the members of the unit will meet in committee for discussion. The Dean and the unit head will then meet with CCAM to review the report. Based on the report, comments received from CCAM and any University planning and priority documents, the unit will then prepare a response. The response will address the issues raised and clearly outline priorities and future directions and initiatives for the unit over the next three to five years. As such it should be prepared in close partnership with the Dean. The response will be transmitted to CCAM which may comment on it. The response and any comments from CCAM will inform the faculty's long-term planning. The Provost or AVP (Academic) will provide a formal written response to the report from the unit.

Follow-up

Five years after the review (and mid-way before the next review) CCAM will initiate a follow-up with the unit. The unit will be invited to prepare and submit a brief report in which members of the unit comment on the consequences of the review and initiatives undertaken in response to it and respond to any comments from CCAM. In particular they will be asked to describe initiatives and plans for the coming three to five years until the next review takes place. The follow-up will be reported to Executive of Council and the report and any comments from CCAM will be made available on request.

	Initial Follow-up	18 Months	Year 5	Goal
U of R Strategic Plan 1				
Goal A	All students will participate in experiential learning opportunities:	<p>Graduate students participate in the MEng COOP program, we have recently allowed MASc students to participate in this program and acquire experience working in industry. We made changes to a number of graduate courses in all programs to allow hands-on labs to take place. Engineering graduate students have participated in a number of MITACS grants with industry partners. Number of MITACS grants in the last 12 months reached 15 grants, and most grants had an associated grant provided by industry partners.</p> <p>Students are continuously encouraged to participate in national and international conferences with financial support provided by FGSR, URSU and the rest covered by the supervisor. They are also highly encouraged to participate in career fairs organized by the University.</p>		

		<p>The faculty added three 1-credit hour classes to the MEng program (ENGG 701, 702 and 703) to help international students become familiar with expectation in the workplace in Canada. Courses introduce students to the principle of engineering practice, professional development, communication and ethical challenges in Canada.</p> <p>Experience in industry is considered a very important factor in hiring of new faculty members in all programs. The faculty continues to highly encourage sessional instructors with industry experience to teach graduate courses. We were planning to host an event to connect graduate students and industry this year, but it was postponed due to Covid 19.</p>		
<p>Goal B</p>	<p>Take significant action on the Truth and Reconciliation Commission's (TRC) Calls to Action relevant to post-secondary education:</p>	<p>The faculty of Engineering and Applied focuses on three fronts: (1) attracting Indigenous youth to study engineering; (2) providing support to students enrolled in its programs, and (3) creating awareness among faculty and staff on Truth and Reconciliation EYES (Educating Youth in Engineering & Science) program, for children entering Grades 2-9, offers six weeks special camps in Indigenous communities, called "inSTEM".</p> <p>Faculty is fund-raising for university scholarships to Grade 10 Indigenous students if they study and satisfactory pass courses required for admission to Engineering, in exchange for serving in their communities for one semester during their university studies. Other scholarships designated specifically for Indigenous students during their Engineering studies are also available.</p> <p>The faculty experimented with a series of support-group meetings in conjunction with the faculty of Science, which featured Indigenous role models who shared their experience with students. Many faculty members and staff took the "4 Seasons of Reconciliation course", to familiarize themselves with Truth and Reconciliation. Some instructors are looking into incorporating this in their courses.</p>		

CCAM Response Template

<p>Goal C</p>	<p>Assess, adopt, implement, and improve student thriving metrics:</p>	<p>The faculty started providing teaching assistants (TAs) to all graduate courses with more than 15 graduate students. TAs would mark assignments and set up regular office hours to help mentor students. It established a dialogue with the Engineering Graduate Student Association (EGSA) with 3 regular meetings that are open to all graduate students. These meetings take place now as regular virtual Town Hall meetings. Funds were allocated to EGSA to organize technical seminars, and social events. Funding was also provided to UR international for a mentorship program to help new international students.</p> <p>Faculty members teach a different graduate course on alternate years to provide more options to graduate students in selecting their courses. Student success and achievements are celebrated on a monthly basis in emails sent to all individuals associated with the faculty of Engineering. A graduate award (Dean’s list) was established to celebrate graduate Engineering students with high academic achievements.</p> <p>The faculty paid particular attention to students’ offices by renovating the MEng lounge and installing high performance workstations. The faculty also renovated the main office space for 16 graduate students in the GreenHouse Gas Building and upgrades to increase seats in a second space is underway. We are also in the process of renovation two new dry labspaces that include carrels for graduate students in the Education building, Events were organized to improve student community and help new students build connections with their colleagues.</p>		
<p>Goal D</p>	<p>25% reduction in our</p>	<p>The faculty is actively participating in the reduction of the number of printers used by offices and labs.</p>		

	<p>ecological footprint:</p>	<p>Graduate students are quite involved with research of importance to Saskatchewan and Canada related to the treatment of produced water, grey water and municipal wastewater, and are involved with research related to the treatment of micro plastic in waters. The faculty continues to be the world leader in research done in the Clean Energy Technologies Research Institute (CETRI) by helping Saskatchewan, Canada and rest of the world in finding economical solutions for the reduction of greenhouse gas emissions. The faculty has also been very active in research related to clean alternatives to fossil fuels, such as wind, geothermal, and appropriately designed microgrids and biomass energy projects. Faculty members are working with FM to test the concept of microgrids on campus and in communities around Regina. About 25 graduate students, mainly PhDs, are involved with different aspects of research in Climate Change in the Institute for Energy Environment and Sustainable Communities (IEESC).</p>		
<p>Goal E</p>	<p>Measure and improve recognized comprehensive impact of University of Regina activities:</p>	<p>The faculty continues to make a positive impact on improving the treatment of wastewater in the city of Regina for a safe and drinkable water supply. Engineering researchers provided strong design, planning and management to municipal drinking water systems in order to meet national safety and security targets and reduce threats. The IEESC implemented regional and Canadian climate change models and projections for impact assessment. The faculty provided solutions to the treatment of produced water from oil and gas operations and the remediation of petroleum-contaminated groundwaters. Research in the faculty helped solid waste managers control contaminants and protect human health through an integrated approach to solid waste management. Researchers worked with the city of Regina to design a process system capable of treating municipal biogas emanating from landfills, and proposed sustainable solutions to manage mine wastes in Saskatchewan. They also helped make more efficient the management of contaminants in</p>		

CCAM Response Template

		<p>residential curbside recycling. Graduate students performed research that helped farmers improving crop yields through the use of automation and algorithms, and making the entire tillage process more precise. This action reduced the carbon footprint of the farming machinery by consuming less fuel. Students have been involved in helping First Nation families improve heating house basements using radiant heating, and improve water quality on reserves. Graduate students are also involved with different research topics related to Covid-19.</p> <p>The faculty continues to support the Educating Youth in Engineering and Science (EYES) which offers a variety of programs, and reached reach more than 30,000 youth all over Southern Saskatchewan in 2019! EYES reached under-served populations in Regina ran thirteen weeks of free programming in disadvantaged communities. EYES partnered with the Open-Door society to offer camp programming for newcomers to Canada.</p>		
External Review Report				
Recommendation A	Teaching Workload:	<p>The faculty is in the process of hiring 3 additional faculty members (two in Industrial Engineering and one in Environmental Engineering). The faculty has given an option for faculty members with research-intensive program or supervising a large group of students to ask for a course relief.</p> <p>The norm in engineering is for faculty members to teach three undergraduate and one graduate course. Even with such a teaching load, the faculty hires on average 14 sessionals to teach both undergraduate and graduate courses. Reduction in the number of undergraduate students in the last couple of years has brought some relief to faculty members teaching undergraduate courses and laboratories.</p>		
Recommendation B	Graduate Students	<p>The addition of the new faculty members will help relieve the need for additional graduate courses. The</p>		

	Teaching and Learning:	<p>faculty has asked all faculty members to teach a different course on alternate years, if the course taught, year after year, has less than 15 registered students.</p> <p>The Petroleum Systems Engineering program is looking at different options for rebranding. It is considering the options of a Clean Energy program or merging with Process Engineering.</p> <p>The faculty is working with UR International to diversify its graduate student population targeting countries like China, Vietnam, Indonesia, Nigeria and others.</p>		
Recommendation C	Space challenges:	<p>Space challenge is still a major concern in Engineering. The faculty finalized an application for a new building, but the Business-Administration request was given a higher priority. Meanwhile, the faculty leased space for an additional 1530 sf research lab in PTRC that provides space for 2 newer academic staff and their research teams. On average, there is a waiting list for graduate space of 30 graduate students. Due to the lack of office space, MEng students are not eligible for office space. This situation has a negative effect on how the students view the quality of time spent studying in the faculty. Nowadays, faculty members continue to struggle to get space for both undergraduate and research equipment in labs. The faculty is renovating two major spaces for graduate students in the Clean Energy Technologies Research Institute (CETRI) to add more desks and reduce the waiting list for graduate students. We also received a 1000 sf teaching space that will house an expanded Software undergrad teaching lab and the previous SSE lab will be turned into 2 research labs.</p>		
Recommendation D	Research Programs and Institutes:	<p>The faculty has a new staff in charge as an Advancement Coordinator.</p> <p>After an internal discussion, the faculty did not find practical to add a new portfolio of “Industry Partnerships” to the ADR position, as this responsibility falls under the VPR office. The Office of Research (OR) has recently hired a staff in charge of “Industry Partnerships”. The faculty has already started close collaboration with the new research facilitator.</p>		

CCAM Response Template

<p>Recommendation E</p>	<p>Service & Staff:</p>	<p>The Faculty is well aware of some communication issues despite best efforts. Programs were directed to work internally on internal issues and seek help from HR staff when necessary.</p> <p>New faculty members have a mentorship meeting, within six months of their hiring, with the Dean to plan their academic career. They are directed to meet regularly with the program chairs to discuss their career plan. New faculty members are encouraged to select a senior member to act as their mentor.</p> <p>A new graduate coordinator soft funded position has been added to increase support for graduate students, scheduling and managing scholarship funds.</p> <p>The faculty has seen an increase in the number of collaborations in grant application and co-supervision of students. More efforts from all parties (Dean, Program Chairs and faculty members) are necessary to create a more collaborative environment within the faculty but also with other faculties. Regular meetings with the faculty of Science take place, but most collaboration initiatives originated from individual faculty members.</p>		
<p>Recommendation F</p>	<p>Financial Resources:</p>	<p>The faculty generates revenues from courses taught through CCE and receives a percentage of COOP tuition fees paid by MEng students, and from research overheads. These funds are used to support faculty members applying for CFI grants, and are also used by the different programs to purchase research software and equipment. It is difficult to envisage that additional tuition revenues will be returned to the faculty in the present financial situation dictated by Covid 19.</p> <p>In collaboration with Advancement and Communications, the faculty is engaging industry partners and alumni in fundraising. This first year was very successful raising \$1.4 million in donations.</p>		

Recommendation G	Fit to University Strategic Plan	Hiring committees were made aware of the necessity to hire, when possible, female and Indigenous candidates. Unfortunately, the percentage of female or indigenous candidates applying for academic position in Engineering is very small. Contrary to what was suggested by the RC, research in all six Engineering programs closely align with at least two UoR clusters (Water, Environment, and Clean Energy and Digital Future). Progress has been made in the completion of the faculty of Engineering Strategic Research plan. Note that the plan has to be aligned with the next university research strategic plan (2021-2026)		•
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	Year 6	Year 7	Year 8	Year 9	Year 10	Goal
U of R Strategic Plan 1						
Goal A						
Goal B						
Goal C						
Goal D						
U of R Strategic Plan 2						
Goal A						
Goal B						
Goal C						
Goal D						
Goal E						
External Review Report						
Recommendation A						
Recommendation B						
Recommendation C						
Recommendation D						
Recommendation E						
Recommendation F						

CCAM Response Template

Recommendation G						
Recommendation H						

Recommendations made by Review Committee (RC)

The unit review made several major recommendations:

- 1. Workload:** Several faculty members were hired in last few years. High workloads may have resulted in challenges and low morale. Suggestion to increase CRC teaching loads to 2.5 per year.
- 2. Graduate Students Teaching and Learning:** (a) Make more use of the Western Canada Dean’s Agreement and provide more graduate courses. (b) Diversify graduate population. (c) Rebrand PSE, EVSE and ESE.
- 3. Space challenges:** Share space, and accommodate students in GHG building till new building becomes a reality.
- 4. Research Programs and Institutes:** Hire a Business development person. ADR mandate should also include “Industry Partnerships”. Rebrand Petroleum program to recruit more students.
- 5. Service & Staff:** Communication to faculty continues to be an issue despite best efforts. RC recommends to mentor new faculty members and create a collaborative environment.
- 6. Financial Resources:** RC recommends that more tuition revenues are returned to the faculty to facilitate research, fundraising for new building, hiring a business development officer and hiring an indigenous counsellor. Engage industry partners and alumni in fundraising for new building.
- 7. Fit to University Strategic Plan:** Faculty goals must align with U of R’ Strategic plan. RC recommends a targeted increase of female faculty members and attract indigenous faculty members. Most FEAS programs do not align specifically with UoR clusters. Programs should complete their research strategic plan.