# CARLETON UNIVERSITY COMMITTEE ON QUALITY ASSURANCE

## Cyclical Review of the joint graduate programs in Civil Engineering Executive Summary and Final Assessment Report

This Executive Summary and Final Assessment Report of the cyclical review of Carleton's joint graduate programs in Civil Engineering are provided pursuant to the provincial Quality Assurance Framework and Carleton's Institutional Quality Assurance Process (IQAP).

### **EXECUTIVE SUMMARY**

The joint graduate programs in Civil Engineering reside in the Ottawa-Carleton Institute of Civil Engineering, a unit administered by the Department of Civil and Environmental Engineering in the Faculty of Engineering at Carleton, and the Department of Civil Engineering in the Faculty of Engineering at the University of Ottawa.

As a consequence of the review, the programs were categorized by Carleton University's Senate Quality Assurance and Planning Committee (SQAPC) as being of good quality. (Carleton's IQAP 7.2.13).

The External Reviewers' report offered a very positive assessment of the programs. Within the context of this positive assessment, the report nonetheless made a number of recommendations for the continuing enhancement of the programs. These recommendations were productively addressed by the Director of the Ottawa-Carleton Institute of Civil Engineering, the Dean of the Faculty of Engineering and Design at Carleton University, and the Dean of the Faculty of Engineering at the University of Ottawa. This response was to the External Reviewers' report, along with an Implementation Plan, was submitted to SQAPC at Carleton University on May 12, 2022.

# Ottawa-Carleton institute for Civil Engineering Unit Response to External Reviewers' Report & Implementation Plan Programs Being Reviewed: Joint Graduate Programs in Civil Engineering

Note: This document is forwarded to Senate, the Quality Council and posted on the Vice- Provost's external website.

### **Introduction & General Comments**

Please include any general comments regarding the External Reviewers' Report.

The Ottawa-Carleton Institute for Civil Engineering was pleased to receive the External Reviewers' positive report. The reviewers indicate that "OCICE is meeting all expectations with respect to program requirements. The joint institute is uniquely positioned in its breadth of expertise within the discipline and has much potential to further leverage this from many perspectives." The concerns noted regarding the M.Eng. program were already identified by us, and noted in our submission to the reviewers. This report was shared with our Board of Management, including the Chairs of the departments at both Carleton and Ottawa U. The Joint-Institute and the constituent departments are committed to the continual improvement of our programs to enhance the student, staff, and faculty experience. The response to the External Reviewers' Report and the Implementation Plan (Section B) represent the consensus of the two departments, and have been shared with the Dean.

For each recommendation one of the following responses must be selected:

Agreed to unconditionally: used when the unit agrees to and is able to take action on the recommendation without further consultation with any other parties internal or external to the unit.

Agreed to if additional resources permit: used when the unit agrees with the recommendation, however action can only be taken if additional resources are made available. Units must describe the resources needed to implement the recommendation and provide an explanation demonstrating how they plan to obtain those resources. In these cases, discussions with the Deans will normally be required and therefore identified as an action item.

Agreed to in principle: used when the unit agrees with the recommendation, however action is dependent on something other than resources. Units must describe these dependencies and determine what actions, if any, will be taken.

**Not agreed to:** used when the unit does not agree with the recommendation and therefore will not be taking further action. A rationale must be provided to indicate why the unit does not agree (no action should be associated with this response).

## Calendar Changes

If any of the action items you intend to implement will result in calendar changes, please describe what those changes will be. To submit a formal calendar change, please do so using the Courseleaf system.

#### UNIT RESPONSE AND IMPLEMENTATION PLAN Programs Being Reviewed: Prepared by (name/position/unit): Will the External Reviewer Recommendation & Categorization Unit Response: Action Item Timeline Owner action 1- Agreed to unconditionally 2- Agreed to if additional resources permit (describe described resources) require 3- Agreed to in principle calendar 4- Not agreed to changes? (Y Rationales are required for categories 2, 3 & 4 or N) 1. The outstanding issues with the course based Agreed to unconditionally Institute has undertaken a review of the Fall 2023 Υ Institute M.Eng program option require resolution. M.Eng. program and will propose solutions Director and the to the identified issues Department (Weakness) chairs at Carleton & Ottawa U. The Institute will endeavor to improve Agreed to unconditionally 2. Internal coordination and communication Winter 2023 Ν Institute communications. The hiring of a new admin Director, the processes need improvement. (Weakness) (Admin person person to support the joint Institutes (by Department expected to be FED Dean's office) will facilitate THIS chairs & the hired next year). Board of Both departments offer a "Graduate management Student Orientation" session each year, where guidance is provided to students for on-boarding and progress through the program. Improvements of the website will be undertaken and the information presented at orientation will be shared on the website for ongoing access.

There is a need for a consistent approach to ensure the preparedness for students in the MASc. program. (Weakness)	Agreed to if additional resources permit	There is no formal research proposal at the Master's level and the supervisors provide guidance on it. We intend to leave it that way.  But, a new course on research methods aimed at thesis students will be introduced to facilitate better preparedness of the students, and assist the individual professors.	Institute Director, the Department chairs & the Board of management	Fall 2022	Y
4. The level of experiential learning outcomes for the M.Eng programs should be clarified. (Weakness)	Agreed to unconditionally	Will be considered during the review of the M.Eng. program	Institute Director, the Department chairs & the Board of management	Fall 2023	Y
5. The strengths and capabilities of the joint institute should be better communicated to the external audiences (including peers, research partners, and potential candidates)( Concern)	Agreed to if additional resources permit	FED @ Carleton is in the process of hiring a dedicated person to assist the Institutes, and this position will facilitate improved communications via updates, posts on web pages. Possible engagement via social media platforms will also be considered	Institute Director, the Department chairs, Faculty members & the Dean.	Fall 2022	N
6. The goals and objectives of the programs with respect to EDI should be explicitly defined. (Concern)	Agreed to unconditionally	The Institute has fully adopted the EDI goals and the objectives of the two Universities, and will work with the Faculty of Engineering at both Institutions to implement any Engineering Faculty specific goals. We will post links to the policies on the Institute web page at the next update cycle.  We do not see a need to develop institute specific EDI within FED. (EDI issues in engineering are anticipated to be somewhat different than those at other faculties, but	The Department chairs, the Institute Director, & the Dean	Fall 2022	N

		we believe a common set of principles within engineering would be sufficient)  We have taken action to address some EDI challenges already (e.g., There has been a significant increase in female faculty members in recent years at both departments).  Additional initiatives if resources permit:  The CPR report included some statistics related to EDI, but additional resources will permit more detailed tracking.  There is an initiative to appoint an Associate Dean to handle EDI issues at Carleton FED which would enhance the ability of the joint institutes to address EDI issues more effectively.			
7. Support should be provided for a student organization/society as a joint institute activity. (Opportunity)	Agreed to in principle	We have strong CSCE and ACI chapters at each University, but do not have a joint organization. However, many events are conducted across the departments on a regular basis. We will promote the merits of joint student organization at the graduate level among the student groups, and will assign a faculty mentor to support the initiative from both departments.	Institute Director, the Department chairs & Faculty members.	Winter 2023	N
8. A mechanism for the inclusion of external program partners in strategic planning and program improvement should be considered. (Opportunity)	Agreed to unconditionally	Both departments have many adjunct professors who can contribute in this capacity. They are currently admitted to Institute as Associate Members and engage in research, but do not directly contribute to program planning and management, except that they have a voice at the AGM but	Institute Director, the Department chairs & the Board of management	Winter 2022	N

		participation rates have been low. We will strongly encourage the participation of all associate members at the meetings.  Further, the by-laws of the Institute will be amended to include one associate member from each department into the board of management to better engage these external program partners.		
9. A mechanism for identifying interdisciplinary research and programs should be considered. (Opportunity)	Agreed to in principle	Interdisciplinary programs are generally easier within each University, and it is difficult to engage in interdisciplinary collaboration across the Universities.  The Institute has taken initiatives to foster interdisciplinary research with the context/limitations of its current programs (e.g., Collaborative specialization in climate change at Carleton, Sustainability and Resiliency at uOttawa). Broader expansion beyond such efforts is difficult within the current framework.  Greater collaboration and willingness at the upper levels at each institution would be required to solve this issue.	Institute Director, the Department chairs, Deans & Higher Management.	N
10. Formal processes for the mentorship of junior faculty and HQP should be considered. (Opportunity)	Agreed to unconditionally	There are processes at both departments for mentorship of junior faculty and HQP.  Mentorship of junior faculty is addressed through formal meetings with the respective Department Chair and Faculty Dean in each university, the assistance of research facilitators at each university, and identified research mentors.	Director, Department chairs & Deans	N

Mentorship of HQP is generally provided by individual professors. All admitted students are assigned a research supervisor (or academic advisor, in the case of coursework M.Eng. students) at the time of admission to the Institute.
The current mentorship process is informal. Formal mentorship arrangements and additional initiatives will be considered if extra resources become available
Co-supervision across the departments is encouraged, and the possibility of establishing a scholarship to support HQP in joint-supervision will be explored in discussions with the Dean & the FGPA/FGPS.