

UTQAP Cyclical Review: Final Assessment Report and Implementation Plan

1 Review Summary

Program(s) Reviewed:	Civil Engineering, BASc Lassonde Mineral Engineering, BASc Civil Engineering, MASc, MEng, PhD Cities Engineering & Management, MEngCEM
Unit Reviewed:	Department of Civil & Mineral Engineering
Commissioning Officer:	Dean, Faculty of Applied Science and Engineering
Reviewers (Name, Affiliation):	<ul style="list-style-type: none"> • Dr. W. Scott Dunbar, Professor of Mining Engineering, Department of Mining Engineering, University of British Columbia • Dr. Mohamed Meguid, Professor and Chair, Department of Civil Engineering, McGill University • Dr. Junko Munakata Marr, Professor and Department Head, Civil and Environmental Engineering, Colorado School of Mines
Date of Review Visit:	November 2-3, 2023
Review Report Received by VPAP:	September 20, 2024
Administrative Response(s) Received by VPAP:	March 20, 2025
Date Reported to AP&P:	April 10, 2025

Previous UTQAP Review

Date: March 14-15, 2018

Summary of Findings and Recommendations

Significant Program Strengths

- High quality of students and impressive gender diversity of the student body
- Strong level of faculty research funding, which has doubled over the last five years
- Department is deserving of its reputation as the top civil and mineral engineering department in Canada

Opportunities for Program Enhancement

- Developing an overarching departmental strategic plan, possibly including an overall mission statement
- Addressing undergraduate and doctoral enrolment
- Identifying international peer institutions
- Addressing variances in the quality and quantity of faculty and student space
- Improving communication about decisions regarding space
- Developing a strategic space plan
- Formalizing administrative processes and improving communications surrounding staff job expectations and performance review
- Conducting a review of needs, gaps, and workload within the staffing structure, especially in the areas of IT and lab support staff
- Addressing gaps in mentorship and feedback surrounding faculty promotion
- Improving the documentation and communications for tenure expectations, and prioritizing untenured faculty space, resources and feedback
- Conducting a curriculum review to identify curricular overlap and to address student workload
- Continuing to recruit students from traditionally underrepresented groups
- Reviewing promotion and enrollment for the MEng in Cities Engineering and Management, and evaluating the overall future direction for the program
- Expanding the department's research portfolio by exploring more industry-sponsored research for students
- Identifying ways to support undergraduate research engagement
- Increasing alumni and external engagement in advisory boards and improving outreach activities to these groups

Current Review: Documentation and Consultation

Documentation Provided to Reviewers

Terms of reference; self-study, including faculty curricula vitae; previous review report (2017-2018), including the administrative response; department strategic plan; department presentations regarding undergraduate, graduate and research programs; recommendations from previous Canadian Engineering Accreditation Board (CEAB) review (2019); access to all graduate and undergraduate course descriptions (e.g., academic calendars); Faculty academic plan, annual impact reports, and Dean's presentation on the Faculty; and University of Toronto Quality Assurance Process (UTQAP).

Consultation Process

Faculty, students, administrative staff and senior program administrators in the Department of Civil & Mineral Engineering, as well as members of relevant cognate units as determined by the commissioning officer. Also consulted were engineers enrolled in the department's professional (MEng and MEng CEM) programs.

Current Review: Findings and Recommendations

1. Undergraduate Program(s)

Unless otherwise noted, all bulleted comments apply to all programs reviewed.

The reviewers observed the following **strengths**:

- Overall quality
 - Programs excel through the exceptional quality of professors and students, maintaining sufficient numbers of professors in each section, and offering unique opportunities for students to engage in interdisciplinary coursework and important research
- Curriculum and program delivery
 - Varied minors and certificate programs provide unique and useful options for students
 - Impactful Professional Experience Year (PEY) program has “impressive levels of participation” even as a strong job market leads some students to opt not to participate
- Innovation
 - Programs feature unique academic innovations including courses on sustainability, business, and data science
- Student engagement, experience and program support services
 - Curriculum visualization platform is an innovative approach to undergraduate advising

- ▶ Field camp and trips provide valuable experiential learning
- ▶ Students noted no significant concerns regarding workload in year 3

The reviewers identified the following **areas of concern**:

- Curriculum and program delivery
 - ▶ Students expressed a desire for more electives distributed across different program years, rather than being concentrated in year 4
 - ▶ Path to graduation becomes very challenging if an undergraduate student fails a course due to some courses being offered only once per year
- Student engagement, experience and program support services
 - ▶ Students expressed a desire for more guidance on field camp and trip activities
 - ▶ Recruitment to CivMin disciplines, particularly Mining, faces challenges due to public perceptions and difficulty reaching high school students and parents

The reviewers made the following **recommendations**:

- Objectives
 - ▶ Align changes to the Lassonde Mineral Engineering program with rapid changes in the global mining industry, incorporating new technologies and evolving societal relationships with metals and materials; ensure that graduates are equipped with a unique breadth of knowledge, including business strategy, finance, community engagement, and public policy, and that they are prepared for involvement in developing Canada's critical minerals strategy
- Curriculum and program delivery
 - ▶ Increase the distribution of electives across different program years, rather than concentrating them in year 4
 - ▶ Explore the possibility of developing elective courses into a stream or course grouping; research themes or innovation clusters could serve as a starting point for discussion
 - ▶ Enhance program flexibility, including by offering courses more frequently, to support more flexible paths to graduation
 - ▶ Schedule 500-level courses to improve access for senior undergraduate students
- Student engagement, experience and program support services
 - ▶ Explore different methods and styles for recruiting Track One students to enhance outreach and recruitment
 - ▶ Consider inviting PEY students or recent program graduates to speak in TrackOne introductory seminar course, to enhance CivMin program outreach

2. Graduate Program(s)

Unless otherwise noted, all bulleted comments apply to all programs reviewed.

The reviewers observed the following **strengths**:

- Overall quality

- ▶ Programs excel through the exceptional quality of professors and students, maintaining sufficient numbers of professors in each section, and offering unique opportunities for students to engage in interdisciplinary coursework and important research

The reviewers identified the following **areas of concern**:

- Quality indicators – graduate students
 - ▶ PhD students' time-to-completion rate is higher than disciplinary average, but may be strongly affected by outliers
- Student funding
 - ▶ Pre-tenure assistant professors experience difficulty attracting strong PhD students in some cases, due to high living cost in Toronto compared to typical student funding packages
 - ▶ Minimum graduate student stipend "is too low to be competitive"

The reviewers made the following **recommendations**:

- Objectives
 - ▶ Consider the fragmented nature of the market for MEng programs (e.g., differences in students' experience level, academic background, and country of origin) when developing program changes
 - ▶ Explore offering diploma programs, with consideration of the resources required to ensure quality
 - ▶ Revisit the purpose of comprehensive exams; align exams with consistent, well-defined learning outcomes to help students understand their importance and value
- Student engagement, experience and program support services
 - ▶ Explore ways to enhance internship and career development opportunities for graduate students, including opportunities through centralized MITACS
 - ▶ Communicate clearly with departments regarding availability of central FASE staff to assist with MITACS internship opportunities
 - ▶ Annual progress tracking for PhD students can help both students and supervisors identify and address issues as they arise, and may also improve time-to-completion rates
- Student funding
 - ▶ Explore mechanisms for providing additional financial support for PhD students

3. Faculty/Research

The reviewers observed the following **strengths**:

- Faculty
 - ▶ Pre-tenure faculty value extensive support for grant preparation

The reviewers identified the following **areas of concern**:

- Faculty
 - ▶ Opportunities for faculty mentorship do not appear to be based on an underlying mentorship model
 - ▶ Once “instrumental” practice of assigning teaching mentors appears to have fallen out of use
 - ▶ Annual faculty evaluation processes have provided limited feedback on progress toward promotion and tenure

The reviewers made the following **recommendations**:

- Faculty
 - ▶ Reinstate assignment of teaching mentors
 - ▶ Develop a structured mentorship model
 - ▶ Provide enhanced feedback on progress toward promotion and tenure during annual evaluation process
 - ▶ Hold more frequent meetings between department Chair and pre-tenure faculty, to provide consistent guidance on promotion and tenure, monitor mentoring, and address any other issues

4. Administration

Note: Issues that are addressed through specific University processes and therefore considered out of scope for UTQAP reviews (e.g., individual Human Resources issues, specific health and safety concerns) are routed to proper University offices to be addressed, and are therefore not included in the Review Summary component of the Final Assessment Report and Implementation Plan.

The reviewers observed the following **strengths**:

- Relationships
 - ▶ Department is supported by a dedicated cadre of administrative and technical staff
 - ▶ Notable collegiality across all sectors of the department
 - ▶ There is a desire for more social and team-building opportunities among academic staff
- Organizational and financial structure
 - ▶ Transparent funding model has resulted in improved decision-making and increased staff confidence
 - ▶ Finance is perceived as a positive attribute in the Department
 - ▶ Use of the shared research and teaching laboratory spaces has been a successful strategy
- Long-range planning and overall assessment

- ▶ Department is currently working to clarify outcomes and career pathways for Lassonde Mineral program graduates
- International comparators
 - ▶ Basic elements of CivMin programs are aligned with top programs in Canada and North America

The reviewers identified the following **areas of concern**:

- Organizational and financial structure
 - ▶ Academic, technical, and administrative staff commented on a need for better communication venues between the Department/Faculty and the staff
 - ▶ Financial and HR system appears outdated, leading to slower business processes
 - ▶ Equipment and laptops are outdated, causing incompatibility issues and inefficiencies
 - ▶ Budget constraints limit initiatives, as noted by lab staff
 - ▶ Space allocation, as well as cost and time required for renovations, remain ongoing concerns
 - ▶ Drive to increase MEng enrollment appears to be driven by the budget model
 - ▶ Reviewers note concerns regarding the appointment of a pre-tenure professor as Associate Chair overseeing professional programs, particularly as such service does not appear to be accounted for in tenure processes

The reviewers made the following **recommendations**:

- Relationships
 - ▶ Establish a formalized conflict resolution mechanism for graduate students and supervisors, and ensure it is clearly communicated and accessible to both students and faculty
 - ▶ Consider ways to enhance communication within the department, including annual all-staff retreats and encouraging Associate Chairs to keep their staff informed about ongoing activities
- Organizational and financial structure
 - ▶ Revisit the budget-driven approach to increasing MEng enrolment, and consider ways to distribute MEng funds equitably across programs
 - ▶ “Any focused effort on recruiting students into and sustaining professional programs is more appropriately taken on by a committee led by a more senior professor”
 - ▶ Develop a succession plan for technical support staff
 - ▶ Continue to seek opportunities to collaborate across departments to optimize use of space
 - ▶ Pursue funds to improve and grow laboratory space, which is closely tied to program quality
- Long-range planning and overall assessment

- ▶ Revisit the departmental strategic plan through a professionally facilitated, inclusive process involving all stakeholders to raise awareness, gain stakeholder buy-in, and promote community/team building
- ▶ Departmental strategic plan should articulate a clear vision and goals with global impact, and identify unique interdisciplinary research and program initiatives based on the department's exceptional strengths



UNIVERSITY OF TORONTO FACULTY OF APPLIED SCIENCE & ENGINEERING

March 19, 2025

Professor Nicholas Rule
Vice-Provost, Academic Programs
University of Toronto
27 King's College Circle

Dear Professor Rule,

I write in response to your letter of November 25, 2025 regarding the 2023-2024 external review of the Department of Civil & Mineral Engineering and its undergraduate and graduate programs.

On behalf of the Faculty of Applied Science & Engineering, I would first like to thank the reviewers, Professors W. Scott Dunbar, University of British Columbia; Mohamed Meguid, McGill University; and Junko Munakata Marr, Colorado School of Mines, for their very comprehensive review of the department. I would also like to thank the Civil & Mineral Engineering chair, faculty, administrative staff, and all those who contributed to the preparation of the self-study, as well as the many staff, students, and faculty members who met with the external reviewers and provided thoughtful feedback.

The external review process is a valuable exercise that affords us the opportunity to take stock of the state of our academic units and of the Faculty as a whole. We are extremely pleased with the reviewers' favourable comments on the quality of the department's professors and students, unique opportunities for students to engage in interdisciplinary coursework and research, interesting academic innovations in the undergraduate program, dedicated administrative and technical staff, and the collegial culture that pervades the department.

The quality of the unit and its program notwithstanding, the review report raises a number of issues and challenges. These have been addressed in the attached table, which was developed in consultation with the chair of Civil & Mineral Engineering. For each area addressed, an implementation plan is provided that identifies actions to be accomplished in the short (six months), medium (one to two years) and longer (three to five years) terms, and who will take the lead in each area.

Comments on the draft *Final Assessment Report and Implementation Plan* (summary) were provided by my office on March 6, 2025.

I anticipate the next review of the Department of Civil & Mineral Engineering will be commissioned in 2026-2027 with a visit to be scheduled for 2027-2028. This will coincide with the end of the chair's term.

Chairs and directors in FASE are required to submit to me a written update on progress made toward the goals in their implementation plans on an annual basis. I will provide you with an interim report on the status of the department's implementation plans no later than 2025-2026, the mid-point between the department's last and next reviews.

I will attend the April 10, 2025 meeting of the Committee on Academic Policy & Programs along with Professor Marianne Hatzopoulos, department chair, to answer any questions that may arise regarding this review.

Thank you very much for the opportunity to respond to the report of the external review team. Their comments and recommendations will help inform the vision and future priorities for the Department of Civil & Mineral Engineering.

Sincerely,



Chris Yip
Dean

cc:

Prof. Marianne Hatzopoulos, Chair, Department of Civil & Mineral Engineering
Caroline Ziegler, FASE Governance & Programs Officer
Lachmi Singh, Director, Academic Programs, Planning & Quality Assurance
David Lock, Academic Reviews & Planning Specialist
Emma del Junco, Academic Reviews & Planning Specialist

Attachment

2023-24 UTQAP Review of FASE Civil & Mineral Engineering - Review Recommendations

Appended to March 19, 2025 letter from FASE Dean Chris Yip to Vice-Provost, Academic Policy & Programs, Nicholas Rule.

Please do the following for each recommendation in the table:

- If you **intend** to act on a recommendation, please provide an **Implementation Plan** identifying actions to be taken, the time frame (short/six months, medium/1-2 years, long/3-5 years) for each, and who will take the lead in each area. If appropriate, please identify any necessary changes in organization, policy or governance; and any resources, financial and otherwise, that will be provided, and who will provide them.
- If you **do not** intend to act on a recommendation, please briefly explain why the actions recommended have not been prioritized.
- In accordance with the UTQAP and Ontario's Quality Assurance Framework, “it is important to note that, while the external reviewers’ report may include **commentary** on issues such as faculty complement and/or space requirements when related to the quality of the program under review, **recommendations** on these or any other elements that are within the purview of the university’s internal budgetary decision-making processes must be tied directly to issues of program quality or sustainability” (emphasis added)
- You may wish to refer to the [sample table](#) provided by the Office of the Vice-Provost, Academic Programs

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The reviewers made several observations related to inflexibility in undergraduate program curricula: they observed that once-per-year course offerings create a “very challenging path to graduation” for students who fail a course and noted undergraduate students’ desire for elective courses to be distributed more evenly across their years of study.	1	“The path to graduation becomes very challenging if an undergraduate student fails a course, with courses being offered once per year; more flexibility or more frequent offerings will improve time to graduation.”	Short-term <ul style="list-style-type: none">• The Department is gathering evidence on the extent of the problem (how many students delay their graduation because of a failed course that they could not repeat)• This option already exists in 1st year, through the T program. In first year, students have an opportunity to retake a course in the same academic year. Medium-term <ul style="list-style-type: none">• We are exploring the possibility of retaking a failed course by enrolling in an equivalent course at another university in the summer and obtaining a transfer credit• Beyond 1st year, if a student is failing a course, we do not believe that it is in their best interest to overload	CivMin is measuring the extent of delayed graduation because of failed courses and is investigating ways in which students can obtain the credit without coursework overload. It is encouraged to work with the VD-Undergraduate to explore strategies employed in other units to address similar issues.
	2	“Greater flexibility is desired in the curriculum to include more electives	Long-term <ul style="list-style-type: none">• The CivMin Undergraduate Studies Committee has embarked on an initiative to develop	The Department is encouraged to work closely with the Dean’s Advisor on Innovations in Undergraduate Education

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		distributed across different years (rather than concentrated in year 4)"	streams in the 3 rd and 4 th year of the Civ program. <ul style="list-style-type: none"> This will entail a major modification of the existing BASc in CivMin but we believe it is much needed given the diversity of focus areas in Civil. The streams will include infrastructure, environment, and geotechnical/mining This flexibility already exists at the undergraduate level within other FASE departments such as MIE and ECE. 	and the Vice-Dean, Undergraduate to these initiatives. It is also encouraged to reach out to the Curriculum Development Specialist in the Office of the Vice-Provost, Innovations in Undergraduate Education for support in any curriculum mapping exercises. The Dean's Office will work closely with the Department as it develops proposals for new streams in years 3 and 4 of the Civ curriculum.
	3	"...scheduling 500 level courses such that senior undergraduate students can better access them will provide more options for them."	<ul style="list-style-type: none"> This is already done 	The Department has increased access to 500-level courses for senior undergraduate students.
The reviewers observed that student recruitment challenges are common in Civil and Mineral Engineering programs and recommended exploring ways to engage students currently enrolled in FASE's Track One program.	4	"APS191H1: Introduction to Engineering, a course in the Track One curriculum, is a series of seminars that introduces students to the major areas of engineering. Of course, this is where programs can attract students from Track One. If it has not been done already, have students who have done PEY describe what they did during their work term. Another idea is to invite a recent graduate who has an interesting work experience story."	Short-term <ul style="list-style-type: none"> CivMin already offers a lecture in APS191 which provides a solid overview of the program, of PEY opportunities, with examples of career paths for recent graduates In addition, CivMin has introduced CIV191 and MIN191, two first year courses that feature weekly guest lectures from engaging alumni and industry partners 	CivMin engages Track One students for recruitment (among other) purposes by offering a lecture in APS191 and featuring weekly guest lectures from alumni and industry partners in two new first-year courses. There has already been a marked improvement in recruitment into Civil and especially Mineral Engineering as a consequence of new leadership and strategies. The Department is encouraged to continue to work proactively in this regard.
The reviewers recommended that future developments in the Lassonde Mineral Engineering program account for rapid changes in the global mining industry, the skills that graduates will need to succeed in the industry, and "the changing relationships between society and the metals and materials it uses."	5	"Any changes to the Lassonde Mineral Engineering program should take account of the rapid changes in the global mining industry if it is to be a distinctive and popular program. These changes certainly include new technologies, but they also revolve around the changing relationships between society and the metals and materials it uses.	Short-term <ul style="list-style-type: none"> The Department recently instituted new recruitment strategies for the Lassonde Mineral Engineering (LME) program. As a result, the first-year intake in September 2024 saw the largest cohort with over 50 new students accepting offers into the program 	I commend the success of the Department's new recruitment strategies for the LME program, which has led to its largest cohort. CivMin is encouraged in its efforts to support more hands-on and experiential learning for MIN students, including

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		Graduates will require a unique breadth of knowledge, ranging from the basic and practical to business strategy, finance, community engagement, and public policy."	<ul style="list-style-type: none"> Curriculum changes were made to MIN201 and MIN400 to support more hands-on and experiential learning All LME students attend the largest Mining conference in Canada, PDAC (Prospectors and Developers Association of Canada), as part of a course <p>Medium-term</p> <ul style="list-style-type: none"> We will be introducing optional bootcamps and industry-led short courses on software and new tools 	opportunities it has created for them to further engage with industry.
The reviewers observed that financial considerations appear to be driving recent increases in MEng enrolments and recommended exploring ways to distribute MEng funds equitably across programs.	6	"The drive to increase MEng enrollment appears to be driven by the budget model. This could be revisited with a view to distributing MEng funds equitably across programs"	<p>Short-term</p> <ul style="list-style-type: none"> Part of the tuition revenue from MEng flows to the Department through the budget model. This revenue goes into the main departmental operating budget and the Chair has currently allocated a budget for continuous MEng improvement (new courses, hiring industry leaders as sessional instructors, organizing field trips). The remaining revenue supports departmental operating expenses. <p>Medium-term</p> <ul style="list-style-type: none"> The Department is revising all MEng emphases and setting up Emphasis Coordinators who provide mentorship to MEng students and facilitate career-oriented activities. This is part of our continuous improvement to the MEng and helps with our recruitment efforts. This initiative will be supported by MEng revenue. <p>Long-term</p> <ul style="list-style-type: none"> The Department will be initiating a new MEng in Mining supported by industry. This program is currently being explored in close partnership with the mining industry. 	The Department is encouraged to work closely with the Faculty CFO and the other departments as to how to strategically use and manage MEng revenues, building on their experiences in managing these and related post-graduate programs.
The reviewers recommended that the Department assess and clarify the purpose of	7	"The purpose of the comprehensive exams should be revisited and linked to consistent,	Short-term	CivMin is taking steps to assess and clarify the purpose of its PhD

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the PhD comprehensive examination and ensure that the exam is linked with a set of consistent, well-defined learning outcomes.		well-defined learning outcomes. This will help students appreciate the need for and value of such exams.”	<ul style="list-style-type: none"> The Department is currently revising the comprehensive exam structure and procedures. These revisions include: <ul style="list-style-type: none"> Ensuring a consistent purpose and well-defined criteria for pass/fail Testing of foundational knowledge and research skills Mandating that the students submit a document, in advance of the exam (3 weeks), by the student, which guides the student and the professors with the questioning (proposal or problem statement and direction of the research) Holding the exam within 18 months of program start date (no later) We are developing an evaluation rubric for the comprehensive exam, included in an exam report form 	comprehensive exam. It is encouraged to reach out to the Curriculum Development Specialist in the Office of the Vice-Provost, Innovations in Undergraduate Education for support in linking the PhD exam to consistent, well-defined learning outcomes. It is also encouraged to discuss with other departments in Engineering as to how they leverage the PhD comprehensive exam.
The reviewers observed that PhD students' average time to completion is higher than at other similar institutions and recommended annual progress tracking to help students and supervisors identify and resolve issues as they arise.	8	“Annual progress tracking for PhD students can be helpful for both the students and the supervisors in identifying issues and resolving them as they arise. This should also help to reduce the time to graduation for PhD students.”	<p>Short-term</p> <ul style="list-style-type: none"> The Department is currently setting up expectations for the supervisory committee meetings (SCM) on a yearly basis (what is expected in year 1 vs year 2, etc.) In addition to the outcome of the SCM, capturing whether a student is making sufficient progress, we propose to add another field “on-track to finishing in 4 years” yes/no with a comment box <p>Medium-term</p> <ul style="list-style-type: none"> Introduce semester goals for PhD students and a “formative” yearly SCM which only goal is to provide advice on research progress <p>Long-term</p> <ul style="list-style-type: none"> Examining the value of the departmental thesis defense and whether it could be replaced by the last SCM 	The Department is encouraged to leverage the support mechanisms and offerings of the School of Graduate Studies and the Faculty's Office of the Vice-Dean, Graduate Studies regarding graduate student progression strategies. This includes resources and best practices being developed by the OVDGS to help reduce PhD time to completion, such as time management training and guidelines for graduate students, timeline for first-year graduate students with milestones, high-level benchmarks for the four years, and a handbook for students and supervisors. Additionally, plans are in motion in the Faculty to create new tools to better track the academic progress of graduate students

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				through the creation of Faculty-funded IT positions.
The reviewers noted that the cost of living in Toronto can create challenges for pre-tenure faculty in attracting high-quality PhD students, observing that “the graduate student minimum stipend is too low to be competitive.” They recommended considering ways to augment financial support for PhD students including the possibility of internships through Mitacs programs.	9	“Some untenured assistant professors are having difficulty attracting good PhD students because living costs in Toronto are high compared to the typical funding that students receive. The graduate student minimum stipend is too low to be competitive.”	Short-term <ul style="list-style-type: none"> The Department is committed to the new 40K minimum and is setting aside a pool of funds to support untenured assistant professors in meeting this minimum 	CivMin is encouraged to work with Advancement and explore opportunities such as MITACS to provide additional support for graduate students. It is also encouraged to work proactively with the Partnerships Office to help new faculty identify and develop supports for their students.
	10	“Consider mechanisms to support larger PhD stipends. Mitacs is one possibility.”	Short-term <ul style="list-style-type: none"> The Department has developed a mechanism to top-up graduate students who earn scholarships, enabling them to exceed the 40K stipend 	
	11	“Graduate students are interested in internship and career development opportunities. The Department expressed interest in centralized Mitacs as a good way to increase opportunities for internships for grad students. FASE has some dedicated staff for this and should make sure departments are aware.”	Short-term <ul style="list-style-type: none"> The Department will not be pursuing a centralized MITACS at this stage, but many of our faculty currently hold MITACS grants Professors are building internships within industry-funded contracts or Alliance grants Medium-term <ul style="list-style-type: none"> At the MEng level, the Department is part of a Coop proposal for MEng, led by FASE and supported by the Engineering Career Center (ECC) The Department will be supporting many talks and presentations by Industry geared to our MEng students The Department will be supporting career fairs organized by student clubs/ industry-student mixer events 	In February 2025, Faculty Council approved the creation of an MEng Extended Full-time Plus Co-op Option that offers a formal for-credit pathway for MEng students to develop a career strategy and workplace skills, make industry contacts, and obtain significant professional experience prior to graduation. The Faculty has also re-invested in co-funded MITACS business development officers to help build these programs and provide more focused support.

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			Long-term <ul style="list-style-type: none"> We are exploring the feasibility of structurally supporting internships for doctoral stream students while balancing the implications for funding and time to completion 	
The reviewers recommended that a formalized conflict resolution mechanism be developed for graduate students and supervisors and clearly communicated to both groups (in developing your response, you are encouraged to work with the School of Graduate Studies).	12	“A formalized conflict resolution mechanism regarding student supervision is needed at the Department level. This mechanism must be clearly communicated and accessible to both students and professors, as needed.”	Short-term <ul style="list-style-type: none"> There is a process that the Department follows for conflict resolution and efforts are currently being made to document it (referring to SGS guidelines on conflict resolution) Medium-term <ul style="list-style-type: none"> We are making efforts to improve communication with students, and will explain the process of conflict resolution at our Graduate Orientation Days We will invite speakers from the Center for Graduate Mentorship and Supervision (CGMS) to present at Graduate Orientation Days and at other points during the year through lunch and learn and other speaker events that the Department organizes for the benefit of graduate students. SCM are tracked more diligently, must take place annually Long-term <ul style="list-style-type: none"> A new initiative is being explored, which involves an informal mentorship model that entails assigning a non-supervisory mentor to every graduate student who opts into the program 	I encourage the Department to continue its efforts to develop a formalized conflict resolution mechanism for graduate students and supervisors, and recommend it consult with the School of Graduate Studies as needed. It is also encouraged to consult with other FASE graduate units regarding best practices they may have developed.
The reviewers made several recommendations related to strengthening mentoring and guidance for junior faculty, including: reinstating the practice of assigning teaching mentors, developing a mentorship	13	“Reinstate the practice of assigning teaching mentors. Develop a mentorship model and provide more feedback during annual evaluations regarding progress toward promotion and tenure.”	Short-term <ul style="list-style-type: none"> The Department will continue to assign a teaching mentor and will better communicate that access to teaching mentors is available 	The Department assigns teaching mentors and is taking steps to ensure its faculty are aware of this resource. It is encouraged to work with the other departments to identify best practices

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model, and holding more frequent meetings between the Chair and pre-tenure faculty to provide guidance on processes and expectations around promotion and tenure.			<ul style="list-style-type: none"> We will retain CTSI resources for teaching observation and feedback We encourage new professors to listen-in on courses delivered by colleagues <p>Medium-term</p> <ul style="list-style-type: none"> We propose to develop an informal community of practice within the Department, organizing events where professors can share lessons learned in various types of course delivery 	for teaching and mentoring. Faculty should also be encouraged to participate in the offerings of CTSI and other initiatives.
	14	“The Chair should meet more frequently with pre-tenure academic staff to provide consistent, general guidance on expectations for and progress toward promotion and tenure, check in on mentoring and resolve issues as they arise.”	<p>Short-term</p> <ul style="list-style-type: none"> Over the past year, the Chair has met at least 3 times in a one-on-one format with untenured professors: once to discuss the outcomes of PTR, another time to discuss course evaluations and experience with teaching, a third time to discuss research. This practice will continue and has proven very useful to early career faculty. The Chair also organizes a yearly meeting with all new professors and walks them through the PTR form, offering guidance on how to fill the form and relate their achievements in an effective manner. New faculty are currently receiving mentorship in the preparation of grant proposals. 	<p>The CivMin chair meets several times a year with untenured professors to discuss PTR and mentoring (see also recommendation 13 above).</p> <p>The Faculty has created procedures and guidelines to help clarify promotion to continuing status for teaching-stream faculty. Examples include the <i>FASE Guidelines for the Assessment of Effectiveness of Teaching in Tenure, Continuing Status and Promotion Decision</i> and the <i>FASE Best Practices for Assessing Teaching Effectiveness in PTR Decisions</i>.</p>
The reviewers noted comments from academic, technical, and administrative staff regarding the need for better avenues of communication with the Department; they suggested annual retreats for all staff as a possibility.	15	“Both academic and technical/admin staff expressed a need for better communication venues between the Department/Faculty and the staff... Annual retreats that involve all staff would be an effective communication venue.”	<p>Short-term</p> <ul style="list-style-type: none"> The Department has changed the culture of departmental meetings whereby staff are now invited to all departmental meetings The Chair has instituted common meetings with both Associate Chairs and Directors of the three offices (Business, Student Services, IT and Technical Operations) 	To help promote communications between the Faculty and administrative and technical staff, the Dean's Office will proactively welcome staff to attend the four meetings of Faculty Council each year.

Request Prompt <i>verbatim from the request</i>	Rec. #	Recommendations from Review Report <i>verbatim from the review report</i>	Unit Response (February 2025)	Dean's Response (March 2025)
			<ul style="list-style-type: none"> Staff are now given space at departmental meetings to present their priorities and seek input from faculty A departmental retreat will be planned in 2025 	
The reviewers noted challenges regarding departmental space allocation and the cost and time required for renovations; they recommended that the Department explore opportunities for cross-departmental collaboration to optimize use of space and pursue funds to improve and grow laboratory space.	16	"The Department and higher administration should continue to seek opportunities to collaborate across departments to (1) optimize use of space and (2) pursue funds to improve and grow laboratory space, which is closely tied to program quality."	Short-term <ul style="list-style-type: none"> This is occurring through the FASE Facilities Masterplan (FMP) The Department is supporting the FMP and participating in the consultation process 	The Faculty is undergoing an update of its Facility Master Plan, with recommendations expected in 2024-2025.
The reviewers recommended undertaking a strategic planning process, with input from all stakeholder groups, to develop and clarify the Department's vision, goals, and unique interdisciplinary research and program initiatives.	17	"Revisit the departmental strategic plan through a professionally facilitated, inclusive process with all stakeholders to raise awareness, get stakeholder buy-in, and promote community/team building. Generate a plan with a vision and goals that can have global impact and provide unique interdisciplinary research and program initiatives, built on the exceptional departmental strengths."	Short-term <ul style="list-style-type: none"> A strategic plan will be initiated in a departmental retreat to be held in 2025 Medium-term <ul style="list-style-type: none"> The Department will revise and update its strategic plan including a strong focus on cross-cutting themes in CivMin which include climate resilient infrastructure, sustainable cities, and health communities 	I look forward to discussing the outcomes of the Department's strategic planning exercise, once conducted, and its new strategic plan. The Department is encouraged to consult with our vice-deans in both these stages, in particular the Vice-Dean, Strategy. It is also encouraged to consider EDI as a core component of its new strategic plan. It is expected that the Faculty's next academic plan will be completed in 2024-2025.
Other recommendations not prioritized in the Request for Administrative Response	18	"Field camp and field trips are valuable experiential learning, though students expressed a desire for more guidance regarding activities."	Short-term <ul style="list-style-type: none"> The Department has conducted a major overhaul of field courses including CAMP, CIV201 and MIN201, as well as MIN 400 These courses now include more structure and guided activities Through ISTEP support, a strong communications component has been introduced 	CivMin has provided additional guidance to students regarding field camp and field trip activities.

Request Prompt <i>verbatim from the request</i>	Rec. #	Recommendations from Review Report <i>verbatim from the review report</i>	Unit Response (February 2025)	Dean’s Response (March 2025)
	19	“Succession planning for technical support staff is needed.”	Short-term <ul style="list-style-type: none">The Faculty of Applied Science and Engineering is supporting many initiatives for shared services and the Department is moving towards centralizing some of the technical support like IT and technical operations Medium-term <ul style="list-style-type: none">Other lab technician positions may no longer be renewed given the difficulties in supporting the salaries of research-based lab technicians Long-term <ul style="list-style-type: none">The Department is transitioning from a model where many lab technicians supporting research are paid from the Department’s operating account to a model where lab support staff are supported by PI funds while staff responsible for lab-based teaching are hired by the Department	The Faculty’s Chief Administrative Officer, Director of Information Technology, and Human Resources Office are available to provide advice and guidance with staffing and job descriptions for technical support staff. CivMin is encouraged to continue to work with these resources to ensure they maintain the proper staffing levels and fully utilize Dean’s Office shared services to maximize efficiencies within the Department.

3 Committee on Academic Policy & Programs (AP&P) Findings

The spokesperson for the reading group reported that the review summary accurately described the full review and that overall, they had found the review to be positive. The Dean's administrative response addressed most of the issues identified and expressed support for the unit's approach to the concerns identified in the review report. The reading group requested further explanation of the appointment of a pre-tenure professor as Associate Chair to oversee professional programs.

Marianne Hatzopoulou, Chair, Department of Civil and Mineral Engineering reported that she took a different approach to workload: She supported people's ambitions and engagements, and noted that the Associate Chair was a high performer, well connected and led initiatives at the department level. She concluded that the individual received a teaching reduction, and delivered an excellent presentation to the review team.

No follow-up report was requested.

4 Institutional Executive Summary

The reviewers praised the “exceptional quality” of the department's professors and students and observed that the programs provide unique opportunities for students to engage in interdisciplinary coursework and important research. They highlighted the department's course offerings in sustainability, business, and data science, as well as the impactful Professional Experience Year program. Overall, the reviewers found that the department's programs aligned closely with the foundational elements found in top programs across Canada and North America. Finally, they applauded the dedicated administrative and technical staff, and the department's “notably collegial culture.”

The reviewers recommended that the following issues be addressed: addressing inflexibility in undergraduate program curricula, challenging paths to graduation for students who fail a course, and undergraduate students' desire for elective courses to be distributed more evenly across their years of study; exploring ways to enhance program outreach and recruitment, including by engaging students currently enrolled in FASE's Track One program; ensuring that future developments in the Lassonde Mineral Engineering program account for rapid changes in the global mining industry, the skills that graduates will need to succeed in the industry, and society's changing relationships with metals and materials; exploring ways to distribute MEng funds equitably across programs; assessing and clarifying the purpose of the PhD comprehensive examination and ensuring that the exam is linked with a set of consistent, well-defined learning outcomes; implementing annual progress tracking to help PhD students and supervisors identify and resolve issues as they arise; considering ways to augment financial support for PhD students including the possibility of internships through Mitacs programs; developing a formalized conflict resolution mechanism for graduate students and supervisors; strengthening mentoring and guidance for junior faculty including reinstating the practice of

assigning teaching mentors, developing a mentorship model, and holding more frequent meetings with the Chair to provide guidance on processes and expectations around promotion and tenure; improving communications between department leadership and academic, technical, and administrative staff; exploring opportunities for cross-departmental collaboration to optimize use of space and pursuing funds to improve and grow laboratory space; and undertaking a strategic planning process, with input from all stakeholder groups, to develop and clarify the Department's vision, goals, and unique interdisciplinary research and program initiatives.

The Dean's Administrative Response describes the unit's responses to the reviewers' recommendations, including an implementation plan for any changes necessary as a result.

5 Monitoring and Date of Next Review

Chairs and directors are required to submit a written update on progress made toward the goals in their implementation plans to the Dean each year. The Dean will provide an interim report to the Vice-Provost, Academic Programs on the status of the implementation plans midway between the 2023-2024 review and the year of the next site visit.

The next review will be commissioned in 2026-2027 with a visit to be scheduled for 2027-2028.

6 Distribution

On August 15th 2025, the Final Assessment Report and Implementation Plan was posted to the Vice-Provost, Academic Programs website and the link provided by email to the Dean of the Faculty of Engineering and Applied Science, the Secretaries of AP&P, Academic Board and Governing Council, and the Ontario Universities Council on Quality Assurance. The Dean provided the link to unit/program leadership.