MEETING OF THE CANADIAN ENGINEERING ACCREDITATION BOARD
Abridged minutes of the 173rd virtual meeting

CONFIDENTIAL

3195   DATE AND PLACE

The 173rd meeting of the Canadian Engineering Accreditation Board took place via Zoom on April 13, 2022.

3196   ATTENDANCE

The following were in attendance:

Chair:	P. (Pierre) Lafleur, FIC ing.
Vice-Chair:	P. (Paula) Klink, P.Eng.
Past-Chair:	R. (Bob) Dony, FEC, P.Eng.
Members:	S. (Suzelle) Barrington, FIC, ing.
	P. (Pierre) Bourque, ing.
	E. (Emily) Cheung, FEC, P.Eng.
	P. (Pemberton) Cyrus, FEC, P.Eng.
	W. (Waguih) ElMaraghy, FEC, P.Eng.
	R. (Ray) Gosine, FEC, P.Eng.
	T. (Tim) Joseph, P.Eng.
	A.M. (Anne-Marie) Laroche, ing.
	J. (James) Lee, P.Eng.
	M. (Mrinal) Mandal, P.Eng.
	J. (Jeff) Pieper, FEC, P.Eng.
	D. (Darlene) Spracklin-Reid, FEC, P.Eng.
	A. (Allen) Stewart, P.Eng.
	R. (Ramesh) Subramanian, FEC, P.Eng.
	T. (Tara) Zrymiak, FEC, P.Eng.
Secretariat:	E. (Elise) Guest
	J. (Johanne) Lamarche
	M. (Mya) Warken
Regrets:	J. (Julius) Pataky, P.Eng.

Observers: (the following were in attendance for all, or part, of the meeting)

C. (Carol) Jaeger (University of British Columbia)

3196 OPENING OF THE MEETING

3196.1   CALL TO ORDER AND APPROVAL OF AGENDA

The Chair called the meeting to order acknowledged the Indigenous lands each member is participating from.

The following motion was carried unanimously:

MOTION:

*"**That** the agenda be approved and that the Chair be authorized to modify the order of discussion."*

Moved by A. Stewart, seconded by E. Cheung

Carried

3197   MINUTES AND ACTION ITEMS

3197.1 Revised P&P Committee Terms of Reference

P. Lafleur provided background information on the project to update the P&P Committee's terms of reference. He highlighted the following changes since the CEAB viewed a draft of the proposed terms of reference at the February CEAB 2022 meeting:

- Editorial adjustments for consistency with other CEAB documents;
- Clarity on the reporting responsibilities of the Committee to the CEAB (i.e., to provide a report at each AB meeting);
- Making the two Engineers Canada Director appointees voting members of the Committee;
- Acknowledge of the importance of, and mechanisms to ensure, diversity on the Committee; and
- A ranked-ballot system with a "Borda count" process to select Committee members.

Members discussed the changes, and no further requests or suggestions were provided to the members of the Working Group.

MOTIONS

The following motion was carried unanimously:

*"**THAT** the new Terms of Reference of the CEAB Policies and Procedures Committee be approved."*

Moved by W. ElMaraghy, seconded by P. Klink.

Carried

The following motion was carried unanimously:

*"**THAT** the Working Group to Review the Policies and Procedures (P&P) Committee Terms of Reference be stood down, with thanks."*

Moved by W. ElMaraghy, seconded by A. Stewart

Carried

3197.2 Addition of a COVID addendum to the required visit materials for the 2022/2023 cycle

Beginning with the 2020/2021 visit cycle, the CEAB required programs to complete an addendum to the Questionnaire to provide visiting teams with contextual information on how the program adapted during the pandemic. The addendum was part of the *Guide for the Virtual Evaluation of an Engineering Program* but given the CEAB's decision at the February 2022 meeting to transition back to in-person visits, the *Guide* will no longer be in use. Members discussed the possibility of still requiring programs to submit an addendum to the Questionnaire for the 2022/2023 visit cycle.

Members raised the following points during the discussion:
- The pandemic response across Canada remains fluid.
- The purpose of the addendum is to help visiting teams understand the situation of the program during the collection (snapshot) year. It helps the programs illustrate what was planned for program delivery and how delivery occurred.
- Accreditation should not be a retrospective exercise and, as such, a backwards-looking addendum is not a useful tool.
- The addendum creates unnecessary additional work for programs.
- If retained, the addendum should be positioned as relating only to the collection year the program is using.
- Making the addendum optional would provide programs with the mechanism to provide context for their data without increasing mandatory reporting.

Members agreed to retain the addendum, but that it would be updated to make it clear to programs that it is optional to provide the responses to the visiting teams and, if submitted, that the information provided should only be related to the collection year.

MOTION

The following motion was carried:

That *the CEAB, on the recommendation of the P&P Committee, approve the amended addendum, which will clearly indicate that completion of the addendum is optional, and that responses to the questions should only speak to the collection year(s).*

Moved by P. Klink, seconded by R. Subramanian.

1 vote against

Carried

3197.3 Programs with more than one modifier in their titles

While preparing for an accreditation visit to dual-discipline programs in fall 2021, members of a visiting team discussed how to properly assess programs for their content. The issue stems from program titles. Dual-discipline programs are generally presented in one of three ways:
- Engineering X and Engineering Y
- X and Y Engineering
- XY Engineering

Members discussed what level of competency graduates of these programs should have in both fields of engineering: should graduates be able to practice competently in both disciplines, in limited ways in both/either discipline, or are they graduates of a 'new' discipline that merges both areas? Given the number of dual discipline programs to be discussed at the June 2022 CEAB meeting, the P&P Committee brought this item forward to the CEAB for discussion to properly frame those discussions.

Members raised the following points during the discussion:
- Regulator and public perception about a graduate's abilities should be considered.
- "Engineering X and Engineering Y" suggests both disciplines have 1850 AUs worth of content within a single program.
- This is an issue for the HEIs to address in how they present the programs to students and how graduates of the programs present themselves to the regulators/future employers.
- The *Interpretive statement on curriculum content for options and dual-discipline programs* as written is not helpful considering current program structures.
- Members expressed concern about being too prescriptive to programs around title use and content expectations.
- There is a distinction between a 'dual degree' program and a 'double major' program: dual degrees result in one degree with multiple areas of specialization while a double major results in two degrees at the time of graduation.
- Regulators do not award licenses at a disciplinary level, so they should be left to assess the educational requirements for licensure as they see fit.
- Emerging disciplines and combined fields are becoming more common – the CEAB may wish to consider eliminating the requirements around dual discipline programs to accommodate modern pedagogical practices.
- Visiting teams can provide feedback to programs regarding the sufficiency of discipline content during the review.
- The possibility of sending two program visitors (one for each discipline) to review dual discipline programs was suggested.

Members agreed a Task Force was required to review, and possibly revise, the *Interpretive statement on curriculum content for options and dual-discipline programs* in light of current pedagogical practices and emerging disciplines. The issue will not be raised with the Engineers Canada Board until the CEAB better understand the situation across accredited programs and is prepared to make recommendations that will bring clarity on the issue to stakeholders. Discussions with the CEQB will be required.

Action: Establishing a Task Force to review the *Interpretive statement on curriculum content for options and dual-discipline programs* will be discussed at a future P&P Committee meeting.

Members agreed to rely on the expertise of the program visitors to dual discipline programs when considering the sufficiency of content during their deliberations at the June 2022 CEAB meeting.

3197.4   Accreditation Input Analysis report

C. (Carol) Jaeger joined the CEAB for this agenda item.

The P&P Committee has been working to determine if an alternative to contact hours can be found to measure program inputs for accreditation purposes. This work has involved a meta review of previous projects to examine the Accreditation Unit (AU) system, and workshops with the EDC's DLC and the CEAB. The P&P used this meeting to introduce an early prototype of a possible Learning Unit (LU) system. The goal of the LU system is address as many root causes of issues with the AU system (as identified by stakeholders) as possible. Rather than measure contact hours, the proposed LU system would measure the average student's level of effort to learn the program's materials required to attain program learning outcomes. This approach would be in keeping with the EDC's request that accreditation focus on outcomes rather than inputs and would further embed graduate attributes in accreditation.

Members raised the following points during the discussion:
- Estimating hours for informal learning (such as studying) and ensuring those estimates are accurate would be challenging. It was noted that the programs would have to ensure internal balance of expectations so that students are working a reasonable number of hours in a week.
- A member expressed concern about the proposed percentage mechanism to transfer from the AU to the proposed LU system.
- The AU system was created to ensure programs were of an appropriate length; the European Transfer Credit System has resolved some of these issues by assigning time expectations to a program credit. Similar systems exist in Canada, but on a smaller scale (i.e., Quebec's provincial system, Université de Moncton and Guelph University). A pan-Canadian system would be difficult to impose.
- Variations in programs across the country on how graduate attributes and course/program learning outcomes are tied together may make the proposed LU system difficult to implement.
  - o One member felt tying learning outcomes to this system may create challenges and suggested that the proposed LU system focus only on learning time.
  - o Another member felt that tying learning outcomes/graduate attributes to learning time is reflecting of good pedagogical practice and would help HEIs with creating programs.
- It was noted that not all root causes of issues with the AU system (as identified by stakeholders) would be addressed by the proposed LU system, but those that are not addressed are either out of the CEAB's sphere of influence or can be address with additional visitor training.
- It was noted that research has been done on the amount of time undergraduate students spend per week to complete courses that information could be considered as part of the development of the proposed LU system.

The P&P Committee, joined by C. Jaeger, will continue to work on the development of the proposed LU system.

Action: The excel version of the LU table included in the agenda book will be made available to the CEAB members so they can further consider the proposed system as presented.

3198   ADJOURNMENT

The 173rd special meeting of the Canadian Engineering Accreditation Board adjourned at 17:59 on Wednesday, April 13, 2022.

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Pierre G. Lafleur, ing. FIC   Mya Warken
Chair   Secretary

Minute number / meeting agenda number and subject title	Action item	Notes
3197.3 / 2.3 – Programs with more than one modifier in their title	• Establishing a Task Force to review the *Interpretive statement on curriculum content for options and dual-discipline programs* will be discussed at a future P&P Committee meeting.	Outstanding. To be considered for the 2023 P&P Workplan
3197.4 / 2.4 – Accreditation Input Analysis report	• The excel version of the LU table included in the agenda book will be made available to the CEAB members so they can further consider the proposed system as presented.	Completed