

CANADIAN ENGINEERING ACCREDITATION BOARD
Minutes of the 161th meeting

CONFIDENTIAL

3011 DATE AND PLACE

The 161th meeting of the Accreditation Board took place at the Hilton Lac Leamy hotel, in Gatineau, Quebec on June 2 & 3 2018.

3012 ATTENDANCE

The following were in attendance:

Chair: W. (Wayne) MacQuarrie, FEC, P.Eng.
Vice-Chair: L. (Luigi) Benedicenti, FEC, P.Eng.
Past-Chair: G. (Gérard) Lachiver, FIC, ing.
Members: P. (Paula) Klink, P.Eng.
D. (Dan) Candido, FEC, P.Eng.
S. (Suzelle) Barrington, FIC, ing.
R. (Ray) Gosine, FEC, P.Eng.
R. (Robert) Dony, FEC, P.Eng.
P. (Pemberton) Cyrus, FEC, P.Eng.
J. (Jeff) Pieper, FEC, P.Eng.
P. (Pierre) Lafleur, FIC, ing.
E. (Emily) Cheung, FEC, P.Eng. (via teleconference)
D. (Denis) Isabel, FIC, ing.
S. (Suzanne) Kresta, FEC, P.Eng.
A.M. (Anne-Marie) Laroche, ing.
T. (Tara) Zrymiak, FEC, P.Eng.
J. (Julius) Pataky, P.Eng.

Secretariat: L. (Lynn) Villeneuve, LL.B.
J. (Johanne) Lamarche

Representatives of the Engineers Canada Board:

D. (David) Brown, FEC, P.Eng.
G. (Gary) Faulkner, FEC, P.Eng.

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

J. (Jacques) Paynter, FEC, P.Eng. (UQAR visit Chair)
M. (Michel) Couturier, FEC, P.Eng. (Guelph visit Chair)
R. (Ramesh) Subramanian, P.Eng. (Concordia visit Vice-chair)
M. (Moody) Farag, P.Eng. (PEO)
R. (Ram) Wierzbicki, EIT (CFES)
J. (Jim) Nicell, P.Eng. (NCDEAS)
M. (Mélanie) Ouellette (Engineers Canada)
D. (Dennis) Peters, FEC, P.Eng. (CEQB Chair)

G. (Gillian) Pichler, FEC, P.Eng., ing. (APEGBC)
M. (Mark) Rigolo, P.Eng. (APEGBC)
F. (Fred) Afagh, P.Eng. (Dean, Carleton University)
A. (Ali) Akgunduz, P.Eng. (Associate Dean, Concordia University)
D. (Don) Russell, P.Eng. (Associate Dean, Carleton University)
J. (Jerome) Talim, P.Eng. (Assistant Professor, Carleton University)
S. (Sidhu) Tarlochan, P.Eng. (Dean, UOIT)
C. (Christine) Moresoli (University of Waterloo) (via teleconference)
A. (Adam) Rodrigues (Engineers Canada staff)
A. (Aude) Adnot-Serra (Engineers Canada Staff)

3013 CALL TO ORDER AND APPROVAL OF THE AGENDA

The Chair called the meeting to order and all attendees introduced themselves. The confidentiality of Accreditation Board proceedings was explained to all present. A copy of the Rules of Confidentiality was included in the agenda book for information.

The following motion was carried unanimously:

MOTION:

“That the agenda be accepted as circulated and that the Chair be authorized to revise the order of business as necessary to accommodate the needs of the meeting.”

3014 APPROVAL OF THE MINUTES OF THE 160th MEETING – February 10, 2018

The minutes and the action items of the 160th Accreditation Board meeting were included in the June meeting materials.

The minutes have been amended with comments from T. Zrymiak. Comments have been included and included:

- grammar and capitalization formatting
- a broken link remains
- 3001.5 bullets have been reworded into a sentence
- 3001.6 bullets have been reworded into a sentence
- 3001.8, about T. Zrymiak’s report to APEGS, it was added that report was also sent to Engineers Geoscientists Manitoba
- GA/CI meeting: a sentence was added to talk about the headings for the main areas where observations were provided.

T. Zrymiak confirmed all her suggested changes were made to the minutes as circulated.

The following motion was carried unanimously:

MOTION:

“That the Minutes and actions items of the 160th meeting be accepted as amended.”

L. Villeneuve then provided an update on the Action Items that remained in progress from the previous minutes

- 5.1.3 item remains in progress because the Policies and Procedure Committee will be dealing with at its summer meeting.
- 5.1.4 item is now complete as the recommendation in question was made to the Engineers Canada Board and approved by it so change to criteria will be applied.

- 5.1.6 item remains in progress because the Policies and Procedure Committee will be dealing with at its summer meeting.

All other action items were completed.

3015 INFORMATION AND REPORTING

3015.1 Engineers Canada Activities

3015.1.1 Update on the Engineers Canada Board winter meeting

W. MacQuarrie provided an update on the February 25 to 28, 2018 Engineers Canada Board meeting.

The Engineers Canada Board received an AB operational update for the September 2017 to January 2018 period, and meeting included discussion on

- 2017-2018 cycle visits
- some of the stakeholders' engagements
- the Accreditation Improvement Program
- UK's desire to have their 3-year engineering program recognized under the Washington Accord
- activities of the AU task force, including its proposed consultation plan, with questions centered around the extent of the engagement of the NCDEAS within the AU task force – as regulators were interested to seeing Dean's engagement in it

3015.1.2 Engineers Canada Board spring meeting and Annual Meeting of Members (AMM) meeting update

W. MacQuarrie provided an update on the May 25, 2018 Engineers Canada Board meeting and the AMM.

The May 25th meeting's agenda included:

Approval for:

- appointments to the Qualifications and Accreditation Boards:
 - L. Benedicenti as incoming chair of the AB
 - R. Dony as the incoming vice chair of the AB
 - W. MacQuarrie as past chair of the AB
 - S. Barrington as OIQ nominee
 - E. Cheung as a member-at-large.
- 2019-2021 Strategic Plan
- various Engineers Canada Board Policy Manual
- AB complementary study criteria change to 3.4.5.1:
 - Considered and approved changing wording “the impact of engineering on society”. Deans suggested it would be more appropriate to have “the impact of technology and/or engineering on society” which the Accreditation Board recommended and the Engineers Canada Board agreed to in May.

Associated with that meeting was also the workshop on the Engineers Canada strategic plan.

The Annual Meeting of Members' agenda included:

- acceptance of financial statements
- approval of 6-year term limits for directors of the Engineers Canada Board
- approval of revised purpose for Engineers Canada
- approval of 2019-2021 Strategic plan
- retention of the current Engineers Canada board size (frozen with current representation and further analysis will be done on Board size)
- approval of the Board Directors for the period 2018-2021

Nomination report

The AB submitted a response to the Nominations Task Force as did the QB and other groups. All feedback will be reviewed and assessed. The final recommendations of the Task Force will be heard by the Engineers Canada Board at their September meeting.

Updates were also received from:

- the Qualifications Board
- the Accreditation Board (criteria changes)
- the Compensation Committee
- the Governance Committee
- the Funding Task Force
- the Nominations Task Force
- the Risk Register
- the Canadian Federation of Engineering Students.

3015.2 Update on the Qualification Board's activities

D. Peters provided an update on QB activities and a report on the development of a model guide on the assessment of non-CEAB applicants. A presentation was provided to Board members.

Some updates on their activities included:

- QB's mandate
- consultations occurring on the following items:
 - model guide on the assessment of non-CEAB applicants
 - revised syllabi for several programs
 - content for the engineers in training website
 - white paper on qualified persons.

He explained the background on the Academic Assessment of non-CEAB applicants. The draft guideline proposes a framework for the process of assessing the education profile on non-CEAB applicants. It suggests six guiding principles that should characterize all assessment processes used in the country including:

- assessment processes must be individualized
- assessment processes must be fair
- education documents must be authenticated and verified
- assessment of breadth and depth of education content should be primarily quantitative and partly qualitative
- confirmation of breadth and depth of education is a requirement for all applicants
- flexibility should be allowed between breadth and depth, as long as a minimum threshold is met.

There are three steps in the assessment of applicants:

- authentication and verification of the documents – encourage regulators to use multiple sources to achieve that – one of the best practices is to use third party agency. The process stops if no authentication is reached.
- assessment of breadth and depth – quantitative measures encouraged, alignment with CEAB categories (sciences, math...) – would encourage regulators to set minimum quantity in these categories
- qualitative assessment of breadth and depth – is degree coherent to engineering. Syllabi to be taken as guideline but not to be followed too closely to leave room to flexibility.

Question as to how to treat substantial equivalence context is open to discussion.

AB members were asked to identify other tools or quantitative measures to show that a degree is coherent?

The following comments were received:

- T. Zrymiak: It was noted that substantially equivalent programs have demonstrated that they are equivalent to CEAB-accredited programs, while those from Washington Accord signatories or countries with MRA agreements have not necessarily demonstrated this.
- D. Candido's experience is that even though a program is accredited under the WA, there can still be some discrepancy in the breadth and depth required for the licensure application.
- P. Klink highlighted that the prominence of the minimum path in the Canadian system is not necessarily treated as such in other countries.
- Graduates from non-CEAB accredited programs (from outside Canada) should get equal chance at licensure as graduates from other Canadian engineering programs that were not accredited by CEAB.
- Substantially equivalent programs are assessed by the Canadian Engineering Accreditation Board under the same criteria and conditions as any other Canadian engineering program – which is why they can be considered substantially equivalent.
- Due to the number of graduates, even if they are CEAB-accredited programs graduates there are going to be some students that individually wouldn't meet the minimum path.
- There might be a parallel to be drawn with the ECTS European system.

Action item:

1. AB Members to submit their feedback on the documentations made available through QB website. D. Peters will bring CEAB's comments back to the QB. The Guideline will be brought back to the CEAB during their September 2018 meeting for discussion. Comments should be forward to Mélanie Ouellette at Mélanie.Ouellette@engineerscanada.ca.

3015.3 Accreditation Board's observation of the April 2018 Qualifications Board Meeting

S. Barrington reported on her observation of the Qualifications Board meeting held on April 7 & 8, 2018.

The main topics of discussion were:

- syllabus work
- circulation of the guideline "General Direction for the Model Guide on the Academic Assessment of non-CEAB Applicants"
- the Practice Committee's development of a draft "White Paper on Qualified Persons".

Additional updates were provided on the following Accreditation Board topics:

- accreditation activities at Higher Education Institutions
- Accreditation Improvement Program (AIP)
- AU Task Force preliminary report.

3015.4 Update on the National Council of Deans of Engineering and Applied Science (NCDEAS) meeting

W. MacQuarrie provided an update on the April 26 to 28, 2018 National Council of Deans of Engineering and Applied Science (NCDEAS) meeting. Updates were provided on:

- the Accreditation Board activities for the October-April period
- the Accreditation Improvement Program
- recommendation of the AU task force and planned consultation process.

The next NCDEAS meeting is to take place in Calgary in October 2018.

J. Nicell added the following:

- Most participants attended the meeting for 2 ½ days
- Representatives from local regulators were present, a practice that the NCDEAS will continue to encourage
- The NCDEAS will encourage development of partnerships outside of the engineering profession for better coordination with counterparts namely on:
 - interdisciplinary education
 - partnership commercialization and innovation
 - preparing graduate students for private sector or government position
- briefing from Engineers Canada included:
 - diversity issues (including but not limited to gender and 30 by 30 goal)

- strong discussion in favor of a direct connection between institution and regulators to meet regularly (annually) to share on key issues, not just on accreditation
- briefing from CEAB included:
 - request to authorize additional details on report on the accreditation activities to have absolute number besides percentages
 - improvement on implementation of criteria changes in the accreditation process:
 - direct communication needed from CEAB when reporting changes
 - work on Canadian engineering education challenge and the approach to those evidence-based method to enhance engineering education for sharing best practices.
- Natural Science and Engineering Research Council (NSERC)

As a result of the discussions between the P&P and the Dean's Liaison Committee (DLC) about the AU Task Force recommendations, the NCDEAS carried the following motions:

1. That the NCDEAS support a move to learning time (unanimously carried with one abstention)
2. That the CEAB move to learning time to avoid different parallel measures
3. That the CEAB reduce the number of AUs or learning time required for the degree
4. That the CEAB be asked to inform accreditation teams and the institutions themselves that an AU cushion is neither required nor encouraged
 - i. On this, there is a global sense of trepidation among the Institutions and they request that the CEAB make it explicit that additional AUs over 1950 is not required or encouraged in any way

A few other points addressed:

- a substantial report submitted to the Nomination Task Force by the NCDEAS
- the emergence of the Engiqueer Canada movement with respect to gender identity protection (Institutions and admin paperwork tend to ask for individual gender, which may make some people uncomfortable) – present in 13 different institution across Canada

Report on mental health among students:

- concerns were expressed
- not all related to workload per se, although it is felt that Institutions and the CEAB have a responsibility to tune the education experience for students to deal with these mental health issues
- report also contains comments about the workload required from students in a compressed time period.

It is also planned for the NCDEAS to work jointly with CFES on shared issues.

Action items:

1. P&P to further discuss and report to the AB the outcomes of their recent AU Task Force consultations
2. P&P to consider developing language to discourage HEIs from exceeding the expected AUs as described in the criterion
3. AB Secretariat to develop training for program visitors to communicate the same message. The training should be applied during the 2019/2020 visit cycle

3015.5 Presentation from the Canadian Federation of Engineering Students (CFES)

R. Weirzbicki provided an update on CFES activities. Topics of discussion were:

Updates on activities:

- CFES meeting at Engineers Canada in March 2018
- conference on Sustainable Engineering (new) hosted at UNBC
- outcoming activities include:
 - Sept. 2018: Presidents meeting in September 2018 at UNB (1st of 2 General assemblies)
 - Jan. 2019: CFES Congress at McGill
 - March 2019: Canadian Engineering Competition (CEC) at University of Waterloo.
- Structure and workplan:
 - action and stances on official papers:
 - stance on student mental health and workload
 - quality of engineering internship (not AB matter but came out of the survey)
 - language electives
 - engineer accreditation
 - diversity and teaching qualities.
 - academic working group to include a representative from every region to have an equal representation of their advocacy.
- Goals for future collaboration focus on:
 - researching compiling and then piloting
 - researching major concerns academic integrity and potential solutions
 - AU pilot programs and accurate measure of them and see how it can map to European ECTS

- language electives for the complementary study
- role of students during accreditation visits
- key indicative factor of internship quality
- health resources and best practice
- Long term advocacy goals: developing a more cohesive relationship between all the major stakeholders (CFES, CEAB, EC, NCDEAS)
 - Develop well-informed, actionable stances on issues impacting engineering students
 - Maintain a framework for advocating these concerns on behalf of students
 - Establish engineering students as a stakeholder on important issues, with a credible and well-coordinated voice.

3015.6 Update on the Nominations Task Force report

W. MacQuarrie provided the following insight into the Nominations Task Force report that contains comments received by AB members.

Includes desire of the AB to develop a common approach for the nomination of candidates to the AB and QB boards and ensure regulators have an appropriate say in their selection.

AB response to this report was due by April 30th, 2018 so that final report could be considered in September meeting and were reviewed at the April 2018 P&P meeting. Comments were received from AB members on 13 of the 17 recommendations and on 2 of the considerations that were contained in the report. Key points include:

- on Recommendation 8, on board size: the current number of 17 members is preferred vs. a proposed number of 15 members on the board. Discussion also included composition approvals, including the members-at-large approvals
- on Recommendation 10, on the balance between academic and non-academic members: the AB responded that a 1/3 industry -2/3 academic ratio feels more appropriate than a 50/50 ratio
- on Term limits: the AB prefers the status quo being the appointment of 3-year terms limits for members

Action item:

4. Nomination Task Force to review the AB's report and comments for presentation at the September Engineers Canada Board meeting

3015.7 Accreditation Board's participation at the 2nd Annual Atlantic Meeting on the Engineering Graduate Attributes (AMEGA 2018)

W. MacQuarrie provided an update on the May 17, 2018 meeting which was held in Charlottetown, PEI with 40 participants.

Workshops centered around:

- sharing best practices for continuous improvement
- making decisions based on indicator performance
- demonstrating GA performance at graduation
- updating program indicators.

The purpose of the Accreditation Board's attendance at the meeting was to share the following information with higher education institutions:

- CEAB accreditation process
- input and outcomes criteria – a greater focus on GA/CI process
- GA/CI processes – what is the AB looking for during accreditation visits?
- sustainable indicator selection
- Accreditation Improvement Program

AB decision to focus more on process than data results received favorable reactions.

A few points emerged from discussions on:

- clarity around what is meant by “6 year-cycle”
- confusion over compliance level measurement expectation:
 - HEIs feel that criteria require them to demonstrate at the time of graduation that students had complied with the university's requirements and that there isn't explicit requirement from HEI to show gradual progression from introductory to intermediate to advanced exposure.
 - AB needs to take a look at their documentation and be more explicit in terms of what the AB is expecting. Has been sent to P&P for consideration.

Positive feedback on the AMEGA was also provided by A.M. Laroche.

L. Villeneuve highlighted that CEAB Secretariat's support to gatherings such as the one in PEI fits in the Accreditation Improvement Program, helping programs and all participants feel more comfortable about their accreditation experience.

J. Pieper provided an update on the upcoming similar gathering on June 15th in Calgary.

J. Nicell also commented that while there is general agreement that the focus on processes rather than results is welcome on GA/CI, outcomes from such meetings was also a sense of confusion. There is a feeling that HEIs need to provide details of their processes but with no indication of what is an acceptable level of data to actually demonstrate the improvement itself. There are concerns on the lack of clarity that this shift from data to process means.

W. MacQuarrie clarified that the demonstration of these processes is not suggesting a significant additional work as most Institutions already have the required processes in place, and the AB does not require new process to be developed for the purpose of accreditation.

J. Nicell brought up that it was suggested that a sort of template be created to show Institutions what the expectations are so they can plan for it.

S. Barrington commented on the fact that a well-documented process alone where data collected is not used to implement changes towards CI, is not something the AB would want to promote. A process that engages people in continuous improvement is what the AB would need to see.

Action items:

5. AB to refer discussion to P&P on the clarification of what is expected from HEIs in terms of Graduate Attributes compliance (showing gradual progression in exposure)

6. P&P to discuss the development of a template to show Institutions what the CEAB's expectations are. Refer to the minutes from the June meeting's agenda item 3.8 section to feed discussion (As per S. Barrington further comment: template should include indication of people's engagement into the process, rather than just data collection)

7. AB Secretariat to share notes on the AMEGA presentation

3015.8 Accreditation Board's participation at the Canadian francophone Universities on accreditation of engineering programs mini symposium

S. Barrington shared a report on the gathering on May 23rd:

- 45 participants, 11 institutions
- main topic was Graduate Attribute #12 (how students are ensured to continue their education)
- Institutions reported on how they measure that GA using their own measurement platform (provides them the flexibility to select what best suits their needs and is appreciated)
- there was discussion on the necessity to go through the accreditation process (with all workload entailed):
 - Consensus on the fact that accredited programs facilitate graduate access to the profession across Canada, which is worth the time dedicated to the accreditation visit process.
- Two questions also came out:
 - on software engineering that AU might be penalizing in terms of Natural Sciences if it could be replaced with math or sciences
 - Quebec universities concerned with CEGEP equivalency that penalized Quebec vs. other provinces, and asked where AB is with that question?
 - L. Villeneuve replied that the matter is being worked on, the matter is going to P&P: recommendation on how to look at the CEGEP equivalencies to change from 225 to a different number.

Next year's conference will be hosted by McGill university.

Action item:

8. P&P to review recommendations on how to look at the CEGEP equivalencies to change from 225 to a different number

3015.9 Governance, Strategic Planning and Consultation (GSPC) project update

L. Benedicenti presented an update on the GSPC project.

Aims at establishing a new set of principles around:

- updates to the governance model
- development of a sustainable planning process
- development of process for ongoing consultation process with the regulators, the CEO group and other key stakeholders
- operationalizing the consultation and strategic planning processes with Engineers Canada staff.

Recent consultation revolved essentially around strategic plan (which was approved just recently at the Engineers Canada meeting). This is a 100% plan setting priority on everything that is going to be done and that excludes anything that is not going to be done.

In this project, those 2 key priorities were recognized:

- accreditation of engineering programs
- the Accreditation Improvement Program (AIP).

GSPC project also includes number of directors and structure of the Engineers Canada Board.

It was brought forward that the key priorities of the strategic plan see Accreditation on top of it. The stress is clearly on Accreditation as part of the Engineers Canada mandate and closely tied with the Qualifications Board.

3015.10 Accreditation Board process improvements

L. Villeneuve provided an update on the Accreditation Improvement Program (AIP).

Goals of the program are:

- automating the accreditation process
- improving communications with stakeholders
- enhancing training provided to Accreditation Board members and accreditation visits volunteers
- bringing visibility to the current tools that the Accreditation Board has to continuously improve.

Latest development of the project that draws a lot of attention has been the selection of a data management system, details of which should be provided shortly.

3016 ACCREDITATION ACTIVITIES

3016.1 Accreditation Board Fall 2018 / Winter 2019 Visits

L. Villeneuve provided a verbal report of activities to date related to the fall 2018 and winter 2019 accreditation visits. A list of visits was provided in the meeting

materials. There will be 14 visits in the 2018/2019 cycle including two new programs. A total of 68 programs will be visited.

3016.2 Member Assignments for the September 2018 Accreditation Board Meeting

W. MacQuarrie presented the members' assignments for the September 2018 meeting. No concerns were raised regarding the assignments.

3016.3 Programs under development

W. MacQuarrie presented the list of programs under development: 22 programs at 17 different institutions. No new programs were reported.

3016.4 Anticipated accreditation visits 2020-2023

L. Villeneuve presented the 2020-2023 anticipated accreditation visits schedule for information and workload planning purposes.

3017 ACCREDITATION DECISIONS - ABRIDGED

3018 POLICY ITEMS

3018.1 Policies and Procedures Committee

W. MacQuarrie, Policies and Procedures Committee vice-chair, provided a review of the list of active issues and their status from the last Policies and Procedures Committee meeting.

3018.1.1 Policies and Procedures Committee with the Deans Liaison Committee

L. Benedicenti provided an update on the meeting's topics of discussion at the April 25 & 26, 2018 meeting. Topics of discussion were:

- Current AB issues were framed, some of which will be presented to the AB for approval to make required changes to the criteria
- DLC meeting has led to some initiatives presented in the Agenda.
- It is felt by the DLC that having a single meeting in a year is not enough to address items that come up, and it was advised to hold more frequent meetings.

T. Zrymiak observed that there was no clear evidence of an AU creep.

W. MacQuarrie stressed that this was still preliminary findings and gave background information as to how the analysis was performed. More material is to be expected early summer.

J. Nicell added that increase from 1800 to 1950 AUs is evidence enough of a creep being created, and reiterated NCDEAS request to retreat back to the total 1800 AUs, highlighting that additional

150 AU adds to 5h/week increase in workload over a 4-year degree.

Action items:

9. AB to review and approve required changes to criteria as discussed at the P&P meeting with the DLC

10. P&P to review AU creep report at their July meeting

3018.1.2 Consultation on the AU Task Force report

B. Dony provided an update on the AU Task Force report.

Consultations were conducted with QB, CFES, NCDEAS, Executive Committee of EC and the regulators.

All responses received from consulted organizations will be summarized into a report. The final recommendations are due to be presented to the Engineers Canada board in September 2018.

J. Nicell reiterated feedback on behalf of the NCDEAS:

- in favor of Learning Units approach
- against having parallel systems of L.U. and AU coexisting, and suggest getting out of the AU system – and accreditation system should be adjusted
- strong interest and concern in the workload issue

Action item:

11. AU task force recommendations to be presented to the Engineers Canada Board at their September meeting

3018.1.3 Update on the visiting teams' assessment approach for Graduate Attributes / Continual Improvement

L. Benedicenti and W. MacQuarrie presented an update on the assessment of GA/CI by visiting teams. Discussion has been had and will continue to be had on how to better formalize and structure the approach of visiting teams to evaluate GA/CI.

A presentation from the Atlantic meeting about GA/CI raised consideration to refining answers to questions that institutions may have. This will be worked on over the coming months, with the September workshop being a good place to start that discussion including coming to a common understanding in terms of the type of questions that could be shared with institutions.

The template should illustrate what it means to have a process evaluation of the GA/CI, to provide some framework to Institutions with the questionnaire instead of leaving it completely open as it is now. Also, an assessment model would be developed through

consultations and piloted before any general implementation or distribution.

G. Pichler pointed at a Symposium in BC that dealt with the matter a few years ago, and where it was discussed whether there should be an individualized way of measuring GA/CI, involving a minimum path for it. After discussion, there was consensus that a proceeding with a minimum path for the GA/CI is not supported at this time, because of the workload it would entail.

J. Nicell noted that it is outside the formal classroom that students get to develop large portion of the Graduate Attributes and calls for a simplification of the evaluation process.

Process was again stressed by D. Candido who mentions that ABET for example is only asking for one set of data within the 6-year period.

Action items:

12. P&P to develop an assessment model to illustrate what it means to have process evaluation of the GA/CI and provide some framework to Institutions to be included with Questionnaire

13. AB September workshop to include discussion on:

- the key points that the assessment should address
- the possibility of requiring only one set of data within the 6-year period for GA/CI evaluation at their September workshop

3018.1.4 Proposed changes to the Interpretive Statement on Graduate Attributes

L. Benedicenti explained the intent is to clarify the Interpretive Statement on Graduate Attributes with a minor change that actually has significant effect, especially on HEIs in Quebec as it clarifies the distinction between the measurement cycle and the cycle as defined as a standard in Quebec.

Proposed changes to Appendix 9, Interpretive Statement on Graduate Attributes:

Paragraph 2, around Principles of GA

“It is recognized that the assessment of the individual attributes and associated program improvement must occur over a cycle of 6 years or less.”

3.1.5 on Assessment Results

“the Accreditation Board expects that a set of assessment results will be obtained each year, with results for all twelve attributes obtained over a cycle of 6 years or less”

Proposal is to replace the word “cycle” with “period”.

Same is to be applied for French version of this Interpretive Statement, with the word “période” instead of “cycle”.

While proposed change of replacing “cycle” with “period” was agreed to by most, some concerns were expressed on further misleading terminology contained in this Interpretive Statement on Graduate Attributes.

S. Kresta suggested for consideration at the P&P Committee for 3.1.5 that it be discussed to modify this to say the Accreditation Board expects that a “sub-set of assessment results will be obtained each year...” This is to clarify that it is not required that all 12 GA be measured every year, but that all 12 will need to be covered over the 6-year period.

MOTION:

“That the Accreditation Board unanimously tabled the proposed changes to the Accreditation Board’s Interpretive statement on graduate attributes to be further discussed by the P&P Committee.”

Action item:

14. P&P to review proposed changed to Interpretive Statement on Graduate Attributes to include further terminology adjustment as per discussion on item 6.1.4 of the CEAB June meeting

3018.1.5 Proposed change to criterion 3.4.5 and 3.4.5.2

Proposed change to criterion 3.4.5 and 3.4.5.2 was discussed and approved after consideration by the P&P Committee.

Aim is to make criterion more consistent with requirements for languages in Complementary Studies. Resulting proposal is to change the Criterion 3.4.5.2 so that it is clear that languages are included in complementary studies and are not treated separately.

Recommended changes were as follow:

1) delete Section 3.4.5.2. This section is inconsistent with other practices related to high school calculus, advanced English, and humanities courses. Furthermore, CEAB’s role is to provide high level accreditation and program guidelines, not to set admission policies.

2) having deleted, 3.4.5.2, insert languages as a recognized and important part of the humanities / Faculties of Arts in the list of complementary studies in 3.4.5.

R. Gosine favours the language update of the criterion and further suggests that law be also explicitly included in Complementary Studies. S. Kresta proposed to take this element to P&P separately from the language item.

Extensive discussion followed on what should or should not be included in a list of Complementary Studies, ultimately calling to get back to basics with the initial intent being to foster a different way of thinking than purely technical or strictly required elements of the curriculum.

Intent of this motion is to enable Universities to make their own decisions without being prescriptive.

MOTION:

“That the Accreditation Board unanimously approved the proposed changes to the Accreditation Board’s criterion 3.4.5.2 on Complementary Studies.”

Next step to this motion is to recommend a change to the Engineers Canada Board, earliest opportunity to do that would be in September 2018.

Action items:

15. AB to refer to the Engineers Canada board at their September meeting for approval of the proposed change on language requirements in complementary studies

16. P&P to consider equivalent change to add Law AB to 3.4.5.2

3018.1.6 Proposed definitions for ratings: “A” – acceptable, “M” – marginal and “U” – unacceptable

General idea is the following:

- *Acceptable* = criterion has been fully satisfied – with the possibility of raising a Concern if ground for it
- *Marginal* = show that something doesn’t always work for the criterion and would usually translate into a Weakness
- *Unacceptable* = criterion has been observed not to work, which leads to a Deficiency

Intent is to open the discussion for future consideration and exchange, possibly through a workshop.

This item is a call for feedback from experienced visitors to document these nuances and variations in ratings. Feedback is to be sent to L. Villeneuve.

The following preliminary comments and suggestions were received:

- Question the relevance of the very terms behind A, M, and U
- Review terms of rating into actionable items for HEIs to consider constructively

Action item:

17. Experienced volunteers to provide their feedback on the ratings of A, M and U with proposed definitions. Feedback should be forwarded to L. Villeneuve and ideally have a concrete example tied to it

3018.1.7 Design Definition Task Force

J. Pieper presented an update on the work of the Design Definition Task Force – which also includes E. Cheung and S. Kresta.

So far, discussions consisted of brainstorming ideas with respect to the current definition of Design and what should be the scope and parameters of defining Engineering Design for the Task Force:

- The foreseen goals for the task force should clarify the use and application of terms for reference by the institutions and when preparing for visits
- Definition should support institutions in creating better programs to benefit students

Further teleconferences of the TF will take place during the summer.

It is suggested to have portion of the September workshop dedicated to this topic (small groups for about 1h/1h30) so as to get various thoughts on definition to be aggregated to make a complete definition.

Task Force to be concluded at the February 2019 meeting with a proposed revision to the AB criterion.

Preliminary discussions have stressed the following idea that Engineering Design

- might involve a certain degree of open-endedness or complexity, of uncertainty, unknown factors coming into play as well as the idea of making decisions out of it.
- should involve a cutting edge between what exists in terms of codes and standards now and ways to turn these forward into new designs, to go beyond the existing

The following summarizes suggestions from AB Members:

- Task Force to also consider a definition of engineering design (ED) that involves the learning process of the students as an integral part of the ED the AB wants to see
- ED definition should highlight an opportunity for students to apply some of the knowledge from complementary studies as design needs to be included into larger scope (social, sustainability...)

- Process of design should go beyond applying standards. Innovation should only be considered as a bonus from the designing process from a student who is learning. Open-endedness is hardly found in first year of training
- Concern was expressed that proposed bullet points for definition are applicable to other fields and that the Task Force should make sure to grasp the features that are unique to ED so as not to create more confusion for HEI in blending adjacent subjects.

Stress is put on the learning process as much as the end result of the design process.

Action items:

18. AB members to provide feedback to J. Pieper regarding the Design workshop and definition
19. Design Definition Task Force to present aggregated feedback at the September meeting and prepare a 1 to 2 hours session on Design Definition to be included in the workshop

3018.2 International Relations

3018.2.1 Washington Accord

3018.2.1.1 International Engineering Alliance Meeting

W. MacQuarrie advised Board members that the 2018 International Engineering Alliance Meeting will be held in London, England from June 25 to 29. He and L. Villeneuve will be attending and will be providing a report to members at the Fall 2018 Accreditation Board meeting.

This meeting will be discussing applications of various agencies or countries for particular Washington Accord status, number of which are items of the current meeting.

3018.2.1.2 Application for provisional status – Myanmar Engineering Council (MEC)

W. MacQuarrie provided Board members with an update on MEC's request for provisional membership.

The final report of the Washington Review Team on the Accreditation system of the *Myanmar Engineering Council (MEC)* was reviewed by D. Candido and J. Pieper.

Their observations are:

- relatively young organisation
- accreditation associated with one level (Bachelor degree for Engineering)

- very well-developed documentation (based on that of ABET)
- description of course content
- comment: high school system ends at grade 11
- accreditation system relies mostly on GA rather than any form of AU, and at some point, MEC would be required to clarify how they intend to assess

The following motion was carried unanimously:

MOTION:

“That the Accreditation Board recommends that the Engineers Canada delegation to the Washington Accord support the application of the Myanmar Engineering Council (MEC) for provisional membership with the Washington Accord.”

3018.2.1.3 Engineers Canada mentorship of the *Colegio Federado de Ingenieros y de Arquitectos de Costa Rica (CFIA)*

W. MacQuarrie provided Board members with an update on CFIA and CACEI’s current provisional status who are working towards signatory status.

The IEA was served notice that they would be seeking signatory status in 2019. Once this notice is served, a team from Washington Accord Engineering Alliance group will be assessing that request through an on-site in the course of 2019-2020.

3018.2.1.4 Engineers Canada mentorship of *El Consejo de Acreditación de la Enseñanza de la Ingeniería (Mexico – CACEI)*

W. MacQuarrie provided update on this along with previous item, 3018.2.1.3, regarding Costa Rica.

3018.2.1.5 Application for signatory status – *Instituto de Calidad y Acreditación de Programas de Computación, Ingeniería y Tecnología (ICACIT) Peru*

W. MacQuarrie provided Board members with an update on ICACIT application for Signatory status. The report was reviewed by himself and D. Candido.

It was noted that verification team for this included Hong Kong, Japan and Australia.

The following motion was carried unanimously:

MOTION:

“That the Accreditation Board recommends that the Engineers Canada delegation to the Washington Accord support the application of the Instituto de Calidad y Acreditación de Programas de Computación, Ingeniería y Tecnología (ICACIT) for signatory membership with the Washington Accord.”

3018.2.2 Accreditation Board for Engineering and Technology: Report to CEAB on attendance as observer at the ABET Symposium

L. Benedicenti provided a verbal report on his attendance as an observer at the Accreditation Board for Engineering and Technology (ABET) on April 11-14, 2018 symposium in San Diego, California. His observations included:

- ABET accredits 4000 programs across 800 institutions (Engineers Canada accrediting 279 across 44 institutions)
- 15000 volunteers, managed by staff of 35, budget USD \$12 million
- Presentations at the symposium were made not by ABET staff but by Institutions that have been through Accreditation so as to provide their interpretation
- Topics discussed include:
 - Sustainability in engineering programs is becoming a central point throughout the United States
 - ABET plans to expand and become the primary accrediting body for STEM in general – not just engineering – all over the world
 - Diversity as well has been recognized and is finally part of the equation
- Logistic-wise:
 - Professional recording
 - Apple-like key notes
 - Very high-class material
 - Web application accessible by mobile as well where one could download presentation, see schedule, add event to calendar, upload pictures of the event they were attending
- Among the sessions that were attended, topics of interest included:
 - Competency-based assessment
 - There was an attempt by an institution to try and move the Graduate Attributes assessment into a competency based assessment that encompasses individual assessment, including a form of minimal path at the individual level

- Attempt failed but that kind of approach should be encouraged and developed into usable type of assessment.
- Accreditation of a 100% online program (Arizona)
 - ABET does not rely on quantitative evaluation which helps in evaluating online program
 - Institution invested in certified means to ensure enrolled students pass the exam
 - Specific content creation system that involved instructors and designer to
 - Social component in ensuring the learning happens

3018.3 Suggestions for improvement of future decision meetings

W. MacQuarrie highlighted improvements made on this meeting from previous suggestions, including: multiple screens for everybody to see, U-shaped tables for best interaction.

The Board was invited to provide suggestions.

- Volume of materials is still heavy and it is suggested guidance to be provided on what to focus on for best preparation
- Suggestion of using briefing notes so as the rest of the material in its entirety is only for back up and interest.

L. Villeneuve invited the attendance to provide their comments to the Secretariat.

Action item:

- 20. AB meeting attendance to provide their feedback to the Secretariat for improvement of future meetings

3019 MEMBERSHIPS

3019.1 Accreditation Board memberships for 2018-2019

W. MacQuarrie listed the member's changes with the Board, announced one new member and expressed the Board's appreciation to the departing members.

Reappointments to the Board includes:

E. Cheung, member-at-large

S. Barrington, representing OIQ for the 2nd term

Executive appointments:

L. Benedicenti, Chair

B. Dony, Vice Chair

W. MacQuarrie, Past Chair

G. Lachiver departing the Board

P. Lafleur enters the P&P committee as replacement for G. Lachiver.

B. Dony serving as vice chair leaves a seat open for the representation of PEO

Action item:

21. AB secretariat to request PEO nominee on the CEAB

3020 NEW AND FUTURE BUSINESS

3020.1 September 2018 workshop

W. MacQuarrie asked Board members for suggestions of agenda topics for the September 2018 workshop. Some of the suggestions were:

- Engineering Design discussion
- Update on the Nomination Task Force (B. Dony)
- Changes to the AB GA/CI documentation, that develop approach of focussing more on process
- Keep open topic at the start of the session for ad-hoc suggestion(s)
- AU requirement for Natural Sciences

3020.2 Comments from observers and representatives of the Engineers Canada Board

W. MacQuarrie invited the meeting observers to provide feedback on the meeting. Observers' comments were as follows:

- C. Moresoli asked for confirmation of the details of the September meeting
 - L. Villeneuve indicated it would be starting in Quebec City on the Saturday, September 15 (Workshop) and the Board Meeting to occur on the Sunday, Sept. 16.

3021 FUTURE MEETINGS

3021.1 Meeting schedule for 2018/2019

W. MacQuarrie presented the proposed dates and locations for future Accreditation Board meetings. No concerns were raised.

3022 SUMMARY OF ACTION ITEMS

A list of meeting action items will be distributed to Board members after the meeting for review and comments.

3023 MEETING EVALUATION BY ACCREDITATION BOARD MEMBERS

Members were reminded to submit their meeting evaluation forms before leaving the meeting.

L. Villeneuve announced that survey would be an online one this year and that an email would be sent out to be completed after the meeting.

3024 ADJOURNMENT

The 161st meeting of the Canadian Engineering Accreditation Board adjourned at 15:00 on Sunday, June 3, 2018.

Wayne MacQuarrie, FEC, P.Eng.
Chair



Lynn Villeneuve, LL.B.
Secretary

Action items: Canadian Engineering Accreditation Board meeting June 2-3, 2018

Agenda item	Action item	Notes
3.2 QB activities update	#1: AB members to send their comments to QB (melanie.ouellet@engineerscanada.ca) about the documentation discussed earlier on (<i>Guidelines on assessment of non-CEAB applicants for licensure</i>)	Completed
3.4 Update on the NCDEAS meeting	#2: P&P to further discuss and report to the AB the outcomes of their recent AU Task Force consultations	Completed
	#3: P&P to consider developing wording indicating that an “AU cushion” is neither required or encouraged	Results from motion carried at the NCDEAS meeting
	#4: AB Secretariat to include training for program visitors to communicate the same message (1950 is sufficient)	Timeframe for draft submission: Fall P&P meeting
3.7 Report on the 2 nd AMEGA	#5: AB members to refer discussion to P&P on the clarification of what is expected from HEIs in terms of Graduate Attributes compliance (showing gradual progression in exposure)	Completed
	#6: P&P to discuss the development of a template to show HEIs what are the CEAB’s expectations.	Consider including in September P&P agenda Refer to the minutes from the June meeting’s agenda item 3.8 section to feed discussion. As per S. Barrington further comment: template should include indication of people’s engagement into the process, rather than just data collection
	#7: AB Secretariat to share notes on the AMEGA presentation	

Action items: Canadian Engineering Accreditation Board meeting June 2-3, 2018

3.8 Accreditation Board's participation at the Canadian francophone Universities on accreditation of engineering programs mini symposium	#8: P&P to review recommendations on how to look at the CEGEP equivalencies to change from 225 to a different number	Completed
6.1.1 Update on the P&P meeting with DLC	#9: Secretariat to review AU creep report by next P&P meeting on July 17-18	Completed
6.1.2 Consultation on the AU Task Force report	#10: AU Task force to present report with all comments gathered from consultation	Completed
6.1.3 Update on the visiting teams' assessment approach for GA/CI	#11: P&P to develop an assessment model to illustrate what it means to have process evaluation of the GA/CI and provide some framework to Institutions to be included with Questionnaire	Completed
	#12: AB September workshop to include discussion on: the key points that the assessment should address the possibility of requiring only one set of data within the 6-year period for GA/CI evaluation at their September workshop	To be included to the September workshop agenda
6.1.4 Proposed changes to the Interpretive Statement on Graduate Attributes	#13: P&P to review proposed changes to Interpretative Statement on Graduate Attributes to include further terminology adjustment as per discussion on item 6.1.4 of the CEAB June meeting.	This is to clarify that it is not required that all 12 GA be measured every year, but that all 12 will need to be covered over the 6-year period This Item was deferred to next P&P meeting – to be included in the Sept P&P meeting Agenda Proposed change to replace “cycle” with “period” has already been accepted
6.1.5 Proposed changes to criteria 3.4.5 and 3.4.5.2	#14: AB to refer to the Engineers Canada board at their September meeting for approval of the proposed change on language requirements in complementary studies.	To be included in the September Meeting Agenda – see minutes from item 6.1.5 of the June minutes
	#15: P&P to consider equivalent change to include Law	To be included in P&P discussions list
6.1.6 Proposed definitions for ratings: “A” – acceptable, “M” – marginal and “U” – unacceptable	#16: Meeting participants to provide their feedback on the use of the A, M and U ratings, and provide examples when possible to the Secretariat	Completed

6.1.7 Design Definition Task Force	#17: AB members to provide feedback to J. Pieper regarding the Design workshop and definition	To be included in the September 2018 Workshop
	#18: Design Definition Task Force to prepare a one to two-hour session on Design Definition to be included in the September workshop	
6.3 Suggestions for improvement of future decision meetings	#19: AB Secretariat to reflect on creating briefing notes to provide essential content of heavy documentation for future meetings	Ongoing
7.1 Accreditation Board memberships for 2018-2019	#20: AB secretariat to seek new nominee from PEO	Lynn