General Visitor Manual

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1.   Introduction

Thank you for agreeing to participate as a GENERAL VISITOR on an upcoming accreditation visit. You, along with the Chair of the Visiting Team, the Vice-Chair and the Program Visitor(s), provide an invaluable service to Canadian Engineering Accreditation Board.

Engineers Canada has developed this document in order to assist you in understanding the accreditation process and your role and responsibilities. Also, you are asked to complete the Accreditation Board's on-line training to gain a full appreciation of the value and purpose of accreditation and your role in it.

2.   Overview of the Accreditation Process

The Canadian Engineering Accreditation Board (CEAB) identifies to the member engineering regulators of Engineers Canada those engineering programs whose graduates are academically qualified to begin the process to be licensed as professional engineers in Canada. The process of accreditation emphasizes the quality of the students, the academic and support staff, the curriculum, and the educational facilities.

Accreditation Criteria and Procedures form the basis of evaluation of the program. Comments and concerns outside these criteria may be brought to the attention of the HEI, but they will not be part of the CEAB deliberation process.

Step 1. Initiating the Process

The accreditation process begins when the institution offering the program for which accreditation is sought makes a request to the Accreditation Board Secretariat. Note that the Accreditation Board accredits individual engineering undergraduate educational programs, not departments or engineering faculties. Requests must be received in January for decisions that will be taken in June of the following year. To be considered for accreditation, a program must have the word "engineering" as part of its name, and must have graduates.

Step 2. The Visiting Team

All visiting team members are experienced engineers, from both academic and non-academic settings. They are selected based on their experience in the profession, familiarity with the engineering regulatory process, and their ability to maintain a broad outlook and assess modern engineering curricula in terms of overall objectives.
Additionally, visiting team members
- must be registered professional engineers in Canada,
- must be proficient in the language of instruction of the institution (both oral and written),

- must have no conflicts of interest[1] with the institution being visited, and
- must be experienced in engineering.

The visiting team chair (TC) chooses a vice-chair (VC) as well as program visitors (PV) who are responsible for evaluation of the depth and breadth of particular programs. The general visitor (GV) is nominated by the regulator and takes a broader perspective. A GV may have expertise in any engineering discipline. The entire team typically visits the higher education institution (HEI) for three-and-a-half days (typically Saturday through Tuesday).

Step 3. Before the Visit

Before an accreditation visit, the Accreditation Board Secretariat asks the institution to complete a questionnaire, reporting on various aspects of the program being considered for accreditation. The questionnaire seeks information about the administration, faculty, facilities, course content and the attributes of its graduates. Copies of the completed questionnaire, along with supporting documents such as the institution calendar, are delivered to each visiting team member, including the General Visitor, eight weeks before the visit.

All visiting team members are expected to read the completed questionnaire. The Accreditation Board Secretariat provides a *Tracking of program issues: Working Document* to all team members to assist them in identifying matters that require further investigation. The Tracking of Issues Working document must be submitted to the team chair before the on-site visit.

Step 4. The Accreditation Visit

The accreditation visit usually takes place over three (3) days in October or November. A sample visit schedule is available on the Engineers Canada website. In some cases, accreditation visits may be held in January or February; this is typically for programs that have not been previously accredited, allowing the visiting team access to a greater amount of completed student work.

The purpose of the visit is to provide the visiting team with an opportunity to corroborate the information contained in the completed questionnaire and to assess qualitative factors that can affect the undergraduate educational experience. Visiting team members participate in a variety of activities. Including interviews with faculty, staff, administration, and students, tours of facilities, and examination, of course, notes, textbooks, student reports, and transcripts. As well as documentation that shows how achievement of graduate attributes is monitored and how information about the performance of graduate attributes is used to improve the program.

On the final afternoon, the visiting team meets privately to review their findings. During the team's last meeting and before the presentation of team results, each program visitor completes a rough draft of their **Report**. Copies of each draft **Report** are given to the Visiting Team Chair, for consolidation and use at the presentation of team findings to institution representatives.

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[1] Defined in Appendix 12 of the Accreditation Criteria and Procedures Report.

Step 5. Report of the Visiting Team

A **report on the accreditation visit** is prepared by the visiting team chair consisting of:

- Acknowledgements

- Overview: background information about the institution and the accreditation visit

- Summary of issues tables

- The report(s) on the program(s)

- Supplementary information.

Within two weeks of the visit, the program visitors submit the final versions of their reports to the team chair. These final reports cannot include any significant findings not previously mentioned and revealed during the exit interview.

Within four weeks of the visit, the team chair submits the **Report on the Accreditation Visit** to the Accreditation Board Secretariat.

Note that the Report contains no recommendations about the accreditation status of the program(s) visited.

The Accreditation Board Secretariat forwards a copy of the Report to the institution for review and comment. This gives the institution an opportunity to ensure accuracy and to advise on any enhancements to the program after the visit.

Step 6. Accreditation Decision

The Canadian Engineering Accreditation Board makes a decision about accreditation based on information obtained during the accreditation visit process and/or from reports submitted by the institution at the request of the Accreditation Board. Most accreditation decisions are taken in June of the year following the accreditation visit, at a regularly scheduled meeting of the Accreditation Board. Before this meeting, relevant documents are forwarded to all Accreditation Board members for review. One member of the Accreditation Board is assigned the role of lead reviewer, with responsibility for conducting an in-depth review of the program(s) and formulating a proposed motion for consideration by the Board. During the decision meeting, the visiting team chair presents the case for the program(s) under review, and the lead reviewer initiates the discussion about the program(s). After discussion, the Accreditation Board members vote on the accreditation status of the program(s).

The maximum period for which a program can be accredited is six years. Sometimes a program is accredited for a shorter period, if the Accreditation Board is concerned about particular aspects of the program or so that future accreditation activities coincide with other programs at the same institution. If the Accreditation Board judges that significant weaknesses exist in a program subject to re-accreditation, a Notice of Termination of Accreditation can be issued. If the Accreditation Board determines that an unaccredited program not fulfill the Accreditation Board published criteria, accreditation of the program can be denied.

The decision about the accreditation of the program is conveyed in writing to the Dean shortly after the meeting. A courtesy copy of the decision letter is also sent to the President of the institution.

3.   Role and Responsibilities of the General Visitor

The GV is a member of the accreditation visiting team whose primary responsibility is to evaluate the professional aspects of the engineering education programs in relation to the _CEAB Accreditation Criteria and Procedures._ The GV does not need to have knowledge of the engineering discipline to be visited, as areas requiring that specific knowledge will be covered by the PV.

A secondary purpose of the position is to provide an opportunity for the regulatory body in the jurisdiction where the HEI operates to engage in the accreditation process.

4.   Key responsibilities

The main responsibilities of the GV are to focus on the professional aspects of the educational process:
- Evaluate graduate attributes relating to communication skills, professionalism, impacts of engineering on society and the environment, ethics and equity, economics and project management (coordinating work with the PVs), and lifelong learning, with support from the VC.
- Meet with the institution's industry advisory group/stakeholders.
- Assess the exposure and culture with respect to licensing and responsibilities of engineers.
- Appraise the culture of safety at the HEI for faculty, staff, and students.
- Evaluate aspects of the engineering curriculum as determined by the TC. This may include reviewing foundational courses common to more than one engineering discipline with the VC.
- Contribute to the visiting team report to the CEAB.
- Complete and submit the General Visitor Report to the Engineering Regulators to the CEAB Secretariat, which is then submitted to the engineering regulatory body on the GV's behalf.

Two GVs may be assigned for larger visits where many engineering educational programs are evaluated. A more detailed summary of GV responsibilities is found in Table 1.

After the Accreditation Board has decided on the accreditation status of the program(s), you will receive a letter from the Accreditation Board chair thanking you for your participation in the accreditation process.

5. Required time commitment

Accreditation visits typically take place during October, November, January, or February. Time commitments may vary depending on the HEI visited, the number or programs, or the issues at an HEI. CEAB expectations of GVs are:
- take the online training module
- read the GV Manual
- review material from the HEI in preparation for pre-visit teleconferences
- attend teleconferences
- make travel arrangements
- fully participate in the visit
- contribute to the overall visiting team report to the CEAB, and
- write the GV report

A detailed timeline is given in Table 1. Visitors should note that during the visit, days are very full and timelines are tight, so other commitments will need to be set aside.

6. Support and training

Many GVs are not academics or people familiar with CEAB, but individuals who hire and work with graduates of engineering programs. To ensure smooth operation of the visit, the CEAB has developed two tools to help GVs feel comfortable in their duties:
- Guide to Engineering Accreditation. This online training module provides an overview of the accreditation process and is required reading for all visiting team members.
- General Visitor Manual. This document provides guidance on the role of the GV and can be used as a how-to manual.

Additional training will be provided during the pre-visit teleconference(s) facilitated by the visiting team chair. GVs should feel free to contact the TC or CEAB Secretariat with any questions or concerns.

For visits to HEIs in Ontario, all members of the visiting team must complete the Accessibility for Ontarians with Disabilities Act (AODA) Customer Service training program.

Expenses related to the visit, including travel, meals, and accommodation will be reimbursed or covered. The CEAB Secretariat will arrange lodging and meals during the visit. The GV will not bear costs of transportation, food, or lodging. All visiting team members are required to comply with the Engineers Canada Board, committee, and other volunteer expenses policy to be fully reimbursed for expenses.

7.   Appointment

The engineering regulatory body in the jurisdiction where the HEI operates nominates the GV, with the assistance of the Accreditation Board Secretariat (as needed), based on criteria detailed in the General Visitor Qualification Rubric (Table 2). The GV typically participates in accreditation visits to engineering education programs in their province of licensure. In some circumstances, a GV may be recruited by a regulator outside their jurisdiction. The GV must be approved by the TC and the HEI.

General Visitors may be asked by their engineering regulatory body to provide a verbal or written report on the accreditation visit. The CEAB encourages this practice to the extent that it does not compromise the confidentiality of the accreditation process. The regulatory body can be informed of the quality and conduct of the visiting team, the visit schedule, and other general information that would convey a sense of the overall experience. Information regarding the quality of each engineering program and related factors assessed during the visit must remain confidential.

8.   Application

Interested individuals are encouraged to express their interest to their provincial or territorial regulator. Related resources:
- General Visitor Manual
- Accreditation Criteria and Procedures, particularly Appendices 11 (Confidentiality) and 12 (Conflict of Interest)
- Engineers Canada Board, committee, and other volunteer expenses policy (policy 7.1)
- Code of Conduct (policy 4.3)

9.   Guidance for contributing to the Visiting Team Report

Below, we have put together some ideas to help you as you review the institution's documents and make observations during the visit.

Components linked to Engineering

Transcripts	- Does transcript information conform to regulations as stated in the institution's calendar (e.g., are failed courses cleared)? - Is there evidence of conformance with Canadian Engineering Accreditation Board's regulations regarding transfer credits?
Student Projects a) Capstone Design b) Other Projects	- Does the Capstone project represent a "significant" design experience? - Is there an opportunity for teamwork? - Is there a link between undergraduate projects and faculty research? - Does the institution make the most of the industry partnerships when identifying Capstone or other design projects?
Complementary Studies a) Engineering Economics b) Impact of Technology c) Ability to Communicate d) Central Issues	- Are these individual courses, or are the topics covered as part of other courses? - What are the opportunities for developing communication skills? - Do students receive formal instruction in oral presentation and report writing? - Are elements of the complementary studies integrated into engineering coursework (e.g., do students evaluate economics as part of design projects)? - Do instructors outside the faculty give complementary studies?
Library Facilities and Services	- Is Engineering consulted when the library makes decisions regarding acquisitions? - What type of liaison exists between Library Services and engineering? - Is instruction in using the library and its resources provided? - What is the engineering budget for acquisitions?
Workshop Facilities and Services	- Is equipment in good repair and up-to-date? - What is the access procedure for undergraduate students?
Computer Facilities and Services	- Is equipment in good repair and up-to-date? - What on-site support is available?

	- Renewal – Is there a formal plan? How often is equipment updated? - What software is available to engineering? - How is the acquisition of specialized engineering software determined?
Advisory Services to Students	- What is the scope of services? - What is the accessibility?
Senior Institution Administration	- Is engineering a priority? - How does commitment manifest itself (e.g., financially)?
Student Access to Dean's Office	- Is there formal liaison between undergraduate student body and the Dean's Office? - What issues can be brought forward? - Is there informal access, and, if so, for what are the types of issues?
Relationship with Service Depts.	- Is there collaboration between engineering and service departments? - What is the Service Department's view of engineering undergraduates?
Co-op/Internship Programs	- How are these delivered? - How is this experience integrated into the undergraduate education experience? - What is the rate of student participation?

Occupational Health and Safety Issues (OH&S)

Culture Surrounding Lab Safety	- Are undergraduates advised of safety procedures/equipment before entering/using the lab? - What safety equipment are undergraduates required to wear (e.g., glasses)? - What disciplinary action is taken if lab procedures are not followed? - How are chemicals stored, and how are they accessed? - How is laboratory activity (both course-related and research) supervised?
Institution Commitment to Safety	- How is OH&S assured across the institution?
Example Set by Staff	- Are instructors knowledgeable of OH&S Act, procedures, and so on? - Do instructors wear safety glasses, shoes, hard hats, and so on?

Emergency Equipment	- Where are eyewashes and showers located? - Are fire extinguishers readily available?
Emergency Procedures	- Are Material Safety Data Sheets new and appropriately located? - Are emergency procedures posted? - Are evacuation procedures reviewed with faculty, staff, and students?
Faculty Appreciation of OH&S Knowledge	- How is OH&S integrated into the curriculum?
Student Appreciation of OH&S Knowledge	- Are undergraduates aware of the Act? - How do the students view the Act?
Posting of OH&S Act	- Where is the Act posted? - Is it the most recent edition?
Non-Academic Workplace Health & Safety Issues	- How does the institution monitor this? - What options are available if this is found to be lacking?
Public Health & Safety in Engineering Design	- Is there evidence that undergraduates consider health and safety in their design projects? - How is public health and safety integrated within the curriculum?

Professional Licensure Issues

Students' Understanding of Licensure	- How do students describe the title "professional engineer"? - What advantages do students see in becoming licensed? - Can students articulate the responsibilities that go along with being licensed (e.g., protection of the public)?
Students' Understanding of the Licensing Body's Role	- What is the students' definition of self-regulating? - Can students articulate the functions performed by the licensing body (e.g., admissions, enforcement, and discipline)? - Can the students describe how the Canadian Engineering Accreditation Board accreditation process fits into the licensing framework?
Regularity of Student Contact with the provincial and territorial engineering regulators	- What is the relationship between the undergraduates and the provincial and territorial engineering regulators? - How is regular contact achieved?

Institution Programs and Incentives to Encourage Licensure of Non-registered Faculty Members	- Is licensure a requirement for employment? - Are annual, or other fees (e.g., exams), paid by the institution? - Is lack of licensure penalized (e.g., merit pay is withheld)? - How does the Dean support licensure?
Non-registered Faculty's Understanding of Licensure	- How do non-registered faculty view the title "professional engineer"? - What advantages do non-registered faculty see in becoming licensed?
Proportion of Registered Professional Engineers	- How close is this number to 100%? - Reasons for present proportion (e.g., new hires who have not yet applied)? - Is there Dean support for registration?
Proportion of Professors Teaching Engineering Science and Engineering Design who are Registered	- How close is this number to 100%? - Reasons for present proportion (e.g., new hires who have not yet applied)? - Dean is a policy for assigning professors who teach engineering science and engineering design?

Student Interviews

Through discussions with the undergraduate students, observations can be made about student maturity, communication skills, knowledge (of licensure, of Canadian Engineering Accreditation Board accreditation process), among others. Furthermore, you can take this opportunity to find out how the students view the engineering program, its advantages and drawbacks and the features that the students find most attractive.

Suggestions for Improvements

You are encouraged to offer suggestions for improvements that the institution may wish to consider in future revisions to its engineering unit. These suggestions should be discussed with the team chair and the program visitors, which may incorporate them into their reports. Note that any suggestions are ultimately those of the visitors and will not necessarily represent the views of the Canadian Engineering Accreditation Board or others.

Table 1. General Visitor's Primary Responsibilities. The general visitor (GV) is an integral member of the visiting team and will participate in meetings and review documents before the visit; meet students, staff, and faculty at the visit; and prepare information for the final report. Support will be provided from the team chair (TC) and vice chair (VC). The GV will collaborate with the program visitors (PV) as needed.

Activity	Timeline	Duration	Specific Tasks
Explore CEAB Criteria	Before first teleconference	1-3 hours	Review the CEAB Criteria & Procedures.
Online training and GV manual	Before first teleconference	2-6 hours	Take the online training and read the GV Manual.
Introductory Teleconference with VT	10 to 6 weeks before visit	1-3 hours	Prepare for and attend teleconference.
Make travel arrangements		30 minutes	Make travel arrangements for the visit based on schedule information from the introductory teleconference.
Review of HEI's Questionnaire response	6 to 3 weeks before the visit	up to 8 hours (dependant on HEI submission quality as well as visit size and number of GVs)	Read the HEI's Questionnaire and Exhibit 1, making notes on questions or missing information about professional aspects of the programs in the tracking document. Focus on the graduate attributes relating to communication skills, professionalism, impacts of engineering on society and the environment, ethics and equity, economics and project management, and lifelong learning. Review learning objectives of courses in which these attributes are taught. Coordinate with the TC, VC, and other GV (if applicable) about reviewing responsibilities for courses providing general foundational knowledge (primarily first year courses). Identify courses/instructors to review more closely on campus. Contact the TC with any questions.
Teleconference with VT regarding preliminary findings	5 to 2 weeks before the visit	1-3 hours	Send tracking document to chair at least 24 hours before the call. Participate in call. Identify additional information requests for the TC.

Review information from HEI	5 to 1 week before the visit	1+ hours	Review the information from the HEI. Identify additional information requests and send to TC.
Follow up teleconference as necessary	3 to 2 weeks before the visit	1 hour	Send tracking document to chair at least 24 hours before the call. Participate in call. Identify additional information requests for the TC.
Conduct on-site visit	visit	Arrive Saturday afternoon and depart Tuesday late afternoon (typical schedule – may vary depending on the visit)	Participate in team meetings. Meet with faculty, staff and students. Review course materials. Document findings in tracking document for submission to HEI. Typically, scheduled time on the visit begins at 7:45 am. Evening meetings can go late into the evening (typically schedule until 10 pm).
Write General Visitor Report	visit (or shortly after)	2-4 hours	Complete General Visitor's Report.

Table 2. General visitor qualification rubric. The general visitor (GV) is chosen based on their ability to work well with others as a team member, communicate (particularly listen to others' opinions), and their experience with engineering in the Canadian environment. These qualifications may also be evaluated by the visiting team chair during a phone interview, and the results shared with the regulating body if a candidate is deemed unacceptable. Under normal circumstances, these are the desired GV qualifications; the regulator is ultimately responsible for nominating the GV. The nominations must be approved by the HEI.

Qualification	Does not meet (unacceptable candidate)	Meets	Exceeds (preferred candidate)
Strong team player	No evidence of team member skills	Experience working on a multidisciplinary team	Evidences strong team membership (not leadership) skills, and collaborative leadership traits.
Strong communication skills (listening, oral, and written) in language of institution	Submission hard to understand, has difficulty communicating	Evidences strong listening skills	Demonstrates ability to listen to others' perspectives without imposing judgement. Exhibits strong oral and written communication skills
Strong understanding of role of the visiting team in the accreditation process		Completed or will complete the online training module	Demonstrates a strong understanding that the visiting team is the eyes and ears of the CEAB, and not a decision-making body
Licensure	Is not licensed to practise engineering in Canada	Is licensed to practise engineering in Canada	Is licensed to practise engineering in Canada
Experience with professional engineering in the Canadian environment	Has less than 5 years of engineering experience in Canada	Has 5 years of experience practising engineering in Canada	Is a senior level (either management or specialist) and has more than 5 years experience practising engineering in Canada