



Suggested interview questions for the Canadian Engineering Accreditation Board Onsite Visits

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Suggested Question Areas for DEAN, ASSOCIATE DEANS, DEPARTMENT CHAIRS

- General relations between Engineering Faculty and the rest (other faculties) of the institution
- Finances: Problems? Opportunities?
- Prospects for enrolments, budgets
- Commitments re budgets, personnel, space, equipment
- Faculty hiring policy –distribution among departments
- Funds for equipment acquisition, renewal
- Policy re professional registration of professors
- Relative roles of teaching and research
- Policy re evaluation of teaching
- Sabbatical policy
- Relationship with student organizations
- Relationship with other departments (humanities, science and math, computing):
 - Collaboration between relevant Faculties in developing content for courses given to engineering students?
 - Are there special sections for engineering students, or are they mixed with other students?
 - Performance of engineering students relative to the other students taking the same courses?
 - Any collaboration between Faculties' Members (e.g. research)? Curriculum.
- How is department being treated, in comparison with other departments (both engineering and other)
- General attitude of engineering students to course/program content
- Suggestions for improvements in courses (are they being received, how/by what channel are they being received, are they welcome, are they encouraged, who do they come from, what types of things do they typically involve, how are they handled)
- How is the faculty of Engineering seen by other faculties? Insular? (“it is seen as...”)
- Outline the requirements/criteria for complimentary studies
- What is the level of input from other faculties to the deliberations of the Engineering Faculty Council?
- What are the qualifications required for Adjuncts?
- How do you prevent loss of staff?
- How do you address issues of professionalism, ethics, academic integrity, and plagiarism?
- What is your vision for the unit/department? (facility, students, professors, multi-disciplinary)
- Where are the strengths and weaknesses of this unit/department?
- Quality/quantity of office support staff and technical staff
- Plans for hiring and renewal of facility, supplies, labs, equipment
- How is development of curriculum being done in later years? (evolving or static, updated and monitored?)
- How often is self-assessment of program done? Evolve, renew, refresh, cycle of research, rate of change?
- How are changes implemented? How are courses modernized? What is procedure?
- Are you following where graduates end up? (work, contribution to society?)

Suggested Question Areas for SENIOR ADMINISTRATION

- How does the institution fit into community? Association with other universities in area?
- Relations between Engineering Faculty and the rest of the institution?
- Financial:
 - Finances – problems? Opportunities?
 - Prospects for enrolments, budgets (any debt/mortgages; sources of students for expansion)
 - Commitments re space, personnel, budgets
 - What is the budget allocation process?
 - Research and teaching – how does the Engineering Faculty rate compare to other faculties?
 - Relations between Engineering and “support” departments?
 - What particular niche does the University aspire to address?
 - How well does Engineering support the University in addressing the niche?
 - What are dominant external influences on the university and where are they leading you?
 - What is the major challenge facing the University?
 - From your perspective, what special problems lie ahead for Engineering?
 - Are there any opportunities that Engineering is overlooking?
 - Does the University have an (Industrial) Advisory Board?
 - Are there any approved design and/or budget improvements for engineering on the horizon?

Vice-President (Finance and Administration)

Vice-President (Assoc.) – Operations & Physical Resources

- General financial status of the university?
- Annual Budget?
- Restricted Funds?
- % allocated to Engineering?
- Debt?
- Plan for retirement?
- Revenue Trends?
- Copy of annual report with financials?
- License/Royalty Income (Engineering)?
- Disposition?
- Student levies for equipment (or other fund raising)?
- Early retirements (financial? how managed?)
- New facilities for Engineering: (needs? Program)?
- Prime financial concern ahead?

Vice-President Academic & Provost

- From an academic perspective, how does Engineering fit at the institution?
 - impact on goals
 - attraction for students
 - intellectual output
 - how does mandate / mission fit into engineering
 -

- Does Engineering draw heavily on sister faculties or tend toward self-sufficiency?
 - collaborations
 - student mixing
- What is driving engineering enrolments? Common to whole university?
 - projections enrolments realistic?
 - proportion capital expansion?
 - projection for entrance requirements?
- What is the process for determining priorities on new hires?
- Reduced teaching loads for new hires?
- Building a volume problem for sabbatical entitlements within new hires?
- Collective Agreement – outstanding or hot issues?
- Curriculum Control
- Academic Appeal structure
- Engineering participation in research?
- What are plans for hiring / budget as it relates to engineering
- What is salary policy / regulations, etc
- Do you see any financial problems in the future?
- What is prediction for student intake (recruitment, retention)?
- Historical background of policy statements (plagiarism)
- Proportion of university budget and fundraising campaigns?
- Budget trends for faculty?

V-P (Research & External Affairs)

- How does Engineering rank comparatively in research at this institution?
- Is there an institutional research plan and where does Engineering fit?
- Within Engineering, what is the rough split between fundamental and applied research?
- Is equal credit given in promotions and tenure processes to fundamental and applied research?
- Are undergraduate students in engineering given opportunities to work in summer at research?
 - aware of research and its role in innovation
- How many technology licenses and spinouts funds (>1-2 people) issued from engineering?
- Fundamental research in research centres?
 - use of grad students in centres – development work?
- What is the flagship area in Engineering?

Graduate Studies

- Relative to the entire university, what is participation rate in graduate studies by engineering?
- To what extent are graduate students involved with the various Research Centres/Chairs and in research contracts, in Engineering?
- Proportion of graduate students (engineering) funded via NSERC and industry contracts
 - Can undergraduate engineering students take graduate level courses?
- Engineering graduate students show preference – M.Sc. Versus M.Eng. Degrees?
 - Scope of work assigned to engineering graduate students as Teaching Assistants?

Suggested Question Areas for SENIOR ENGINEERING ADMINISTRATION

- Planning for replacement of equipment?
- Improve / maintain accountability (esp. with research funds)?
- Services offered to researchers and chairs for planning and controlling budgets to allow for good management and to stay on budget?
- Help offered to produce reports to granting agencies?
- Service to dean to keep on track with budgets?
- Ensure good departmental budget (operating, support, and staff)?
- Process to negotiate new hirings and budget approval with university?
- Strategic plan?
- How are things going? What would you change?

Engineering Faculty Advisory Board Chair

- General Format of meetings
- Record of Advice followed
- Significant Issues from Board's perspective
- Suggestions for improvements
- Sense of faculty "plug-in" to the community and the profession
- Who do you report to?

Suggested Question Areas for INDIVIDUAL FACULTY MEMBERS

- Are you registered as a P.Eng.?
- If you had a wish list for changes, what would be on it?
- Where would you like to see things going?
- What do you feel are strengths of the program?
- Do exams focus on law and ethics?
- What is your opinion on space, class sizes, and lab staff?
- How is reaction from students in your classes?
- How do students feel with workload?
- What sort of project (design components integrated) / responses / engagements / exposure do you require from students
- How long have you been teaching here?
- Have you made any changes to course, notes, curriculum? (re-modeled)
- Do you feel there is room for you to improve courses? And add a personal touch?
- What sort of impact to Profs. have on curriculum? Represent industry?
- How are class sizes? Hinder teaching load?
- Appropriate TAs?
- Is admin easy to work with?
- How many courses taught per term? Affect time for research?
- How is balance between research and teaching? Able to balance/integrate?
- What courses are you currently teaching? What are favourite courses to teach?
- Rapport with other staff? Able to speak freely with chair and dean?
- Able to get the supplies/resources needed?
- What is teaching method to keep class engaged?
- Do you/how do you integrate elements from industry and the “real world”?
- Do students have access to advice (career and course choice, academic)?
- Is there sufficient resource for funding? Is this dependant on students?
- Is lab equipment current, reflects relevant/current industry needs?
- Is there a good balance between theory and design? (where is application)
- What are efforts made toward encouraging/enlarging involvement?
- What do you think attracts students to come here? What is the “edge” of this university?
- How often are self-assessments conducted? Does change result?
- Are students generally employed upon graduation?

Suggested Question Areas for LAB TECHNICIANS

- Is there enough money? (funding to support good lab)
- Are students getting enough experience?
- How old is the equipment? Is it sufficiently current?
- What is the cycle for replacement?
- Do students have an equipment fund to help?
- What are safety procedures?
- Are students properly prepared when entering labs?
 - Are there protocols (glasses, footwear, outfit)
 - Are guidelines taught and posted
 - Do they get surveillance and guidance from technical staff
 - What safety routines do the students learn in the labs?
- When are rooms accessible to students?
- Access to labs after hours? Particular permission involved?
- How many students per lab?
- Are labs for research and undergrads together? Is there enough space?
- Who supervises the labs? (techs and/or TA?)
- Are techs capable / knowledgeable enough to oversee a lab supervisor is absent?
- Do the Profs. participate in labs?
- What are your thoughts on whether students are getting proper practical experience (not all virtual / video)
- Are the students prepared to do the labs? (are they getting proper theory?)
- Would you work for these students when they graduate? Would you feel safe working for these students?
- What is the average length of employment for technical staff at the institution?
- What is the labour climate?
- What would you change about the labs?
- How often are fume hoods checked?
- Are there enough eyewash stations (test each one). How often are they tested?
- Any accidents? Average number and nature of accidents?
- Are safety posters and exit signs mounted and visible?
- What do you do with waste oil and metal chips?

Suggested Question Areas for ADMINISTRATIVE SUPPORT STAFF

- Do you feel prepared / educated to do your job?
- Do you have support and materials?
- Are you overloaded / stressed / underworked?
- Are you burdened with too many tasks? Would an additional support staff help?
- Clarify roles of people in department
- Do you think the university works well? Are there enough staff?
- Are students being well-served? Do they complain?
- What type of support do you provide to students?
- Hours of operation – do they serve the students well?
- Do the students take advantage of your resources (supplies, keys, photocopies, assignments, staplers, etc.)?
- How much do you have to work with faculty (interface time)?
- How do you find working with faculty? What are interactions like?
- What sort of support do you provide to professors?
- How is relationship between staff and Profs? What kind of support do they normally ask for?
- Do you have much interaction with faculty level admin staff?
- What student opportunities are set up (scholarships, TA positions)?
- How long are exams stored for?
- Who handles records (transcripts, files, records)?
- How do you keep them private/confidential? PIPEDA
- Is there a departmental website, who works it? (translation to electronic media)?
 - How is it kept up to date?
 - Is it policy to put course materials on site?
 - Are policies/manuals, etc. available online?
 - Does this increase workload?
- How do you communicate with central admin.?
- What system is in place for accessing student records? Is this upgraded periodically?
- Do you get training when it is needed? Is there an avenue through which to receive professional training?
- What is the process of implementing change?
- Who prepares documents for calendar changes?
- What is the most challenging aspect of your job?
- Is office space appropriate/useable?
- When is the busiest time of year?
- What is process if a student misses an exam due to medical problems?
- Who handles student appeals? What is the process?
- Are you involved with any faculty committees/ departmental meetings?
- Are you an independent department, or are there common operations between other engineering departments or the dean's office?
- How long have you worked here? How many years of combined experience?
- What is your perception of students? Are they happy/satisfied? Do they appreciate the services offered?
- Labs: who has access to entry? Is the entry logged? Equipment monitored for theft and vandalism?

Suggested Question Areas for STUDENTS

- General Experience:
 - Tell us about your educational experience
 - Do you think you're getting good education? Why?
 - Is the program excessively difficult?
 - What is the hardest course? What is the easiest course?
 - What do you like most/least about being in this faculty?
 - Does the load (credit) weighting of your courses correspond to the amount of work required?
 - What type of learning is it?
 - Ability to think/logic, or how to get employed?
 - Time management. Group and teamwork.
 - What do you like/don't like about being associated with engineering?
 - How is life outside class? How does the university treat you?
 - Are there opportunities to compete against other universities?
 - What would you improve about your program?
- Professors/Other staff:
 - Do your Profs really show enthusiasm?
 - Are you satisfied with the quality of teaching?
 - Do you feel prepared for final exams? Do they test on class-learned knowledge?
 - Do you get feedback on assignments and exams? Is it timely?
 - What do you think of faculty and staff? (Availability? Good teachers? Can present materials well? Are they too focused on research?)
 - How would you rate your lab instructors, TA's?
 - TAs. What is impression? (Can you understand them (language barrier)? Are they knowledgeable? Helpful?)
 - What about technical staff and administrative staff? (Availability / helpfulness?)
- Design Experience:
 - What do you think is the "mark" of an engineer (design)?
 - What kind of exposure to engineering design?
 - What is your impression of the design experience component of your program?
 - Are there peer review / ratings of design project?
 - Do you have formal training on how to be good team members?
 - Do you feel prepared for design projects? Do they build on knowledge?
- Laboratory Experience:
 - Is it hands on and practical?
 - Exposure to industry / working force?
 - Is it a good balance between lecture and hands on?
 - Is there adequate modernized equipment?
 - Are labs better attached to courses, or lab courses are like a review?
- Facilities:
 - Do you have adequate access to computing facilities and needs (software, terminals)?
 - Are the laboratories well equipped and maintained, up-to-date?
 - Resources – access to books and library? Online resources
- Student Input/Student Society:
 - Do you have input into the development and evaluation of the teaching program?
 - Are there formal course evaluations – do the departments take them seriously?

- How do students regard the course evaluation process? (does everyone participate (%rate))
- Do you have suggestions for change?
- How do students (formally as a group) communicate with the Faculty if there are concerns; and has there been a good record of results?
- Are students well-represented by departmental / faculty committees
- Are there student representatives at faculty / departmental meetings?
- Is the student society active?
- Student Counselling/Advising:
 - How does student counselling and advising take place?
 - Are there tutorial services available?
 - Is there a students association? Student committees?
 - Does the association discuss student issues with faculty?
 - Do you get advice/ support? What do I need to graduate?
- Complementary Studies:
 - What is your impression of your humanities courses?
 - Are the physics, chemistry, math, and economics courses relevant, interesting?
 - Do you get opportunities to develop and practice communication skills – oral and written?
 - Do you have courses to teach how to write/present reports, not just the design?
 - Are you able to do minors in other disciplines (business)
 - How much contact is there between non-engineering & engineering students? (mixed classes, or segregated/separate)
- Electives:
 - What knowledge are you given on the business side of engineering practice? (charge-out rates, billable hours, proposal writing, continuing education)
 - Do you get exposure to other engineering disciplines and other fields?
 - What do students know about faculty research programs and other engineering disciplines?
 - Is there a good choice selection for elective courses? Is there ability to focus on an area/specialization?
 - How do you get counselling for electives to choose?
- OS & H:
 - To what aspects of laboratory safety and occupational safety and health have you been exposed?
 - Is health and safety taught? When?
 - How much preparation is given to ethical issues and harassment in work term briefings?
- Professional Engineering:
 - Have you had exposure to the provincial (territorial) professional engineering association – how did you get to know about it – what do you know about it?
 - Do you believe the program is educating you to be an engineer?
 - Do you see value in becoming a professional engineer? Do you plan to become one?
 - Are you aware of the impact of your profession (safety, ethics, professional practice)?
 - How much are you exposed to activities/life of professionals?
 - How much do you understand the importance?
 - How is work learned in school related to real world?
 - Do you feel prepared? Problem-solving, judgements.
- Co-op:
 - Is the co-op program administered well? Can you find placements easily?

- Does the university help out? Guarantee placement?
- Do you find the placements help? Are they useful?

Suggested Question Areas for STUDENT SERVICES

- What services are offered? (student exchange, admissions, scholarships, peer tutoring, academic advice, how to deal with problem students, appeals)
- Responsibilities of staff?
- Appeal procedures?
- Putting students in touch with proper people/systems?
- Student service resources (counsellors, medical advice, et)?
- Who deals with students with special learning / physical conditions? Special treatment regarding examinations?
- What are policies on academic standing / transfer credits?
- How support faculty who what to pursue academic integrity (how to encourage Prof.)?
- How are written policies from calendar / department dealt with? (academic integrity)
- How are pre-requisites tracked?
- Registration issues?
- What are the controls on credits, continuing education, etc?
- Exchange regulations, bilateral agreement details. Limit to number of terms away?
- Minimum GPA to apply?
- Is industry experience encouraged? (internship, co-op)
- What resources devoted to career centre?
- Is participation encouraged in student engineering competitions?

Suggested Question Areas for OCCUPATIONAL HEALTH AND SAFETY

- Professional practice and engineering economy
- Is content discussed with CM for feedback and participation (reviewed and approved)?
- Taught by credible, experienced and expert Profs.?
- How do you keep students interested?
- Are they looking externally to compare with what is going on in industry and other institutions?
- Awareness and what's important (not prescriptive)?
- Include topic on CEAB = "professional and ethical responsibility"
- Comprehension of CM role, structure, obligation, procedures?
- CM specific responsibilities: ethics, criminal, due diligence?
- Case studies to discuss impact and examination? Approach case from different angles?
- Do case studies cover all disciplines?
- Is course evolving and changing. Keeping up with trends?
- What year is the course(s) offered
- Relevant topics:
 - Whistle blowing
 - International collaboration
 - Intellectual property (IP)
 - Impact of engineers and technology on people
 - Health and safety issues, environmental impact, responsibility of the engineers
 - Workplace responsibility and rights, teamwork, confidentiality
 - Safety of public
 - Social and environmental impact
 - Privacy
 - Discrimination (age/race/sexual)
 - Bribes, kickbacks
 - Conflict of interest
 - Criminal code and due diligence
 - Principles of fire prevention
 - Accident prevention
- How is health and safety treated?
- Overview of hazards + evaluation of hazards (what measures are used?)
- How to control – quality control hierarchy?
- Where is OH&S legislation?
- What resource materials are used (web or text)?
- How are materials tested?
- Is there a course that focuses on financial issues?
 - Engineering economics
 - Objectives: overview of all sorts of financial comprehension
 - Macro/micro. Theory of production
 - Accounting principles. Analysis/ratios
 - Techniques of project evaluation (taxes, budgets, cash flow)
 - Any project/ activity that reinforce?
 - What semester? Should be early on (1st or 2nd year)
 - Effects of inflation
 - Risk analysis (estimations, uncertainties, base techniques)
 - Equipment replacement strategies

- Usage of financial calculators

Suggested Question Areas for LIBRARY STAFF

- To what extent do engineering faculty members include library research in student course assignments?
- To what extent do engineering students receive briefings on library usage?
- What is actual usage of facilities by undergraduate engineering students?
 - Reference
 - Interlibrary loans
- What is actual usage of facilities by Engineering faculty?
- Has the Internet impacted upon any of the above?
- Student's knowledge of copyright?
- What involvement does library have with industry?
 - electronic searches
 - value adding
 - extension to private collections
- What is library doing to offset declining budgets?

Suggested Question Areas for HEADS OF OTHER RELATED DEPARTMENTS
(ex: Chemistry, Science or Mathematics)

- Do you have sections that are only for engineering students?
- What is overall impression of engineering students, as compared to science or mathematics students?
- Do engineering students come with good outlook?
- What are similarities/differences between main stream courses, and those designed for engineering students?
- Are texts used slanted more towards engineering, or same texts as other students?
- Do engineering students bring interesting change to courses where they are integrated with regular chemistry/science/math students?
- What is quality of exposure to non-engineering material?
- Do you try to bring everyone to the same level upon completion (engineering students, and other students)?
- Is there any feedback from engineering faculty (ie: knowledge isn't strong enough in students)?
- How is cooperation with engineering faculty (ie: do you follow CEAB guidelines)?
- Do you get input from engineering faculty when designing curriculum? What is content? Applied to engineering type problems?
- What is ratio of 1st year students in engineering compared to other disciplines?
- How many students per session?
- What texts are used? North American standard?
- Does text have a practical aspect to it? (rather than theoretical)
- What is weight of applied versus basic science?
- What is the pass rate?
- Is course pretty high for attrition?
- Lab space: size, equipment, ratio of students to TAs?
- Do you try to put best Profs. to teach 1st year courses?
- What are the qualifications of Profs?
- Where are TAs from (graduates, Master's, Ph.D.)? Do you employ undergrads?
- Has quality of students been going up or down?
- What do you wish to change?