

PRE-REGISTRATION PROGRAM

Latest update by Sharon Sankar, P.Eng., P.E., Director of Admissions, Engineers Geoscientists Manitoba on March 1, 2017

All Engineering Interns (EITs) and Geoscience Interns (GITs) are required to complete the Association's Pre-Registration Program in order to be eligible for registration as Professional Engineers or Professional Geoscientists.

The Pre-Registration Program is comprised of four components:

- Acceptable engineering or geoscience work experience
- Professional Practice Examination
- Continuing education/professional development activities
- Volunteer service activities

ACCEPTABLE WORK EXPERIENCE

The Association requires all applicants for registration to have obtained at least four years' acceptable work experience. To be acceptable, the experience must be obtained: normally following academic qualification; under the guidance and supervision of a registered professional engineer or professional geoscientist who assumes full responsibility for the work. Acceptable work experience must comprise the practice of engineering or geoscience (as defined in *The Engineering and Geoscientific Professions Act*), which must include the application of theory, as well as exposure to the areas of practical experience, management, communication skills development, professionalism and ethical responsibilities, and the social implications of engineering or geoscience. While obtaining the experience, the EIT or GIT must show progression in technical capability, responsibility, maturity of judgement, and communication proficiency.

Exposure to the areas of practical experience, management, communication skills development, professionalism and ethical responsibilities and the social implications of engineering or geoscience may be obtained through on-the-job training, volunteer work, appropriate courses, participation in the activities of technical societies, and other similar activities.

Note: A complete lack of exposure to any of these areas will render the EIT/GIT unsuitable for registration.

Each EIT and GIT is required to submit and to have his or her supervisor(s) submit to the Experience Review Committee, upon the completion of every six months' equivalent full-time work experience, a Progress Report. This concise report will detail the work experience progress in the application of theory, practical experience,

management, communication skills, professional and ethical responsibilities, and the social implications of engineering or geoscience.

The EIT's/GIT's report will also include a summary of professional development activities and volunteer service activities.

Note: The Progress Report must be submitted within two months of the completion of the six months' full-time (or equivalent) work experience. If employment has changed within this six month period the Intern will be required to submit one report for each position. In other words, if an Intern had two positions – one lasting four months and one lasting two months, two reports for both positions would need to be submitted within 2 months of the completion of the total work experience. Any experience claimed eight months prior to APEGM's receiving the report(s) will be assessed as late and therefore subject to late sanctions.

IMPORTANT: Interns who are not in full-time positions or who have changed jobs or been laid off within the 6 month 'window' should also submit for any experience gained within that window. For example, if an Intern worked in an engineering position from January 1, 2005 to January 31, 2005 (1 month) , then was laid off from February 1, 2005 to April 30, 2005 (3 months), then started another engineering position on May 1, 2005 and worked past June 30, 2005 (two months) he or she should submit a progress report for January 1, 2005 to January 31, 2005 and for May 1, 2005 to June 30, 2005 and both these reports would be due by August 31, 2005 (2 months later) – although it is perfectly acceptable to submit them earlier.

The Experience Review Committee (ERC) will review the reports submitted by each EIT/GIT and supervisor. The ERC may discuss the report(s) with the EIT/GIT and/or supervisor, if appropriate, until satisfied that the work experience is acceptable and progressing satisfactorily, that the EIT/GIT is receiving sufficient continuing education and adequate exposure to professionalism, and that the EIT/GIT is participating in sufficient volunteer service activities.

PROFESSIONAL PRACTICE EXAMINATION

The Engineer's Canada (EC) Guideline on "Admission to the Practice of Engineering in Canada" requires all applicants for registration with a Canadian engineering association to complete a closed-book professional practice examination on the ethical considerations and obligations that accompany the privileges of professional status and the legal concepts relevant to professional engineers and geoscientists. EC's guideline on the professional practice examination helps ensure standardization to facilitate the inter-association mobility of registered professional engineers and geoscientists.

The Association has adopted a National Professional Practice Examination, which is administered by the Association of Professional Engineers and Geoscientists of Alberta (APEGA), and which conforms to the EC Guideline.

Successful completion of the Professional Practice Examination is mandatory for all EITs and GITs, unless they have already successfully completed a comparable examination, which conforms to the EC Guideline, for another provincial or territorial association.

The Professional Practice Examination is offered twice a year: once in April and once in October. Preparation for the examination is primarily self-study, with the study materials available from McNally Robinson bookstore in the Grant Park Mall in Winnipeg. Information about the National Professional Practice Exam is at the Association website and sign-up for the exam is through the Intern's online profile. Interns who are interested may take advantage of seminars to prepare for this exam, but self-study is also required. Go to:

<http://www.apegm.mb.ca/PPEStudyMaterials.html> for details.

CONTINUING EDUCATION/PROFESSIONAL DEVELOPMENT

The Continuing Education/Professional Development component of the Pre-Registration Program is designed to ensure that all EITs and GITs undertake continuing technical education and obtain pertinent training and knowledge in areas relevant to their work.

All EITs and GITs are expected to take courses and seminars of both technical and non-technical natures, to enhance their technical expertise and to develop a mature, well-rounded base of professional knowledge as preparation for assuming professional responsibilities in the workplace.

To qualify for registration, each EIT and GIT must engage in a cumulative total of 48 hours of professional development activities over the four years they are on the program. Ideally, these should be in a variety of subjects. Interns who have gone through the academic assessment process will be required to do 12 hours of professional development rather than 48. Normally, the professional development should comprise attendance at courses, seminars, presentations, etc. However, certain formal self-study (e.g. internet-based courses, and correspondence courses) may be considered acceptable. Non-formal study or reading cannot be acceptable for professional development credit.

The professional development should include technical subjects applicable to the EIT's/GIT's field of employment or expertise, and non-technical subjects such as those listed below. Please note that this is not an exhaustive list. It is intended only as a guideline. Other appropriate courses or activities will be approved on an individual basis.

NOTE: The professional development that Interns do is NOT the same as ProDev (CCC program) which is only done after registration.

Acceptable Professional Development Course and Seminar Topics

General Guideline: As a general rule, one Professional Development hour will be credited for every hour of participation in an activity. In order to receive credit, the EIT/GIT must specify the number of hours of participation for each activity undertaken. (Please use hours only as the unit – not weeks, credit hours, etc.).

Professional development hours must be input ONLINE at the Intern's personal profile.

Management

- Recruitment and Selection Processes
- Human Resource Planning and Management
- Strategic Planning
- Project Control
- Developing a Business Plan
- Sales and Marketing
- Continuous Service Improvement
- Decision Making and Problem Solving
- Customer Service
- Preparing Objectives and Action Plans
- Negotiation and Bargaining Skills
- Process Safety Management

Supervision

- Conflict Management
- Stress Management
- Motivating Employees
- Working with Minorities
- Harassment Issues
- Total Quality Management (TQM), self-directed work teams
- Defusing Hostilities
- Motivation and Productivity
- Career Management
- Working Within A Collective Agreement
- Performance Evaluations
- Safety in the Workplace

Communications

- Report Writing
- Public Speaking
- Critical Thinking & Critical Thinking Skills
- Running Effective Meetings
- Presentation Skills
- Computer Skills/Applications
- Toastmasters participation
- Languages

Business

- Business Finance
- Economics for Practising Engineers or Geoscientists
- Statistics

Law

- Negotiating a Contract
- Writing Specifications

Self-Development

- Junior Achievement Involvement

Other

- Environmental Factors affecting the engineering/geoscience process
- Association Professional Development (breakfast or luncheon) meetings (normally a max. 1 hour/meeting)
- Association seminars (including the NPPE seminar, but NOT the exam itself)
- Association Annual General or Chapter Meetings (number of presentation hours only – does not include time spent at lunch)
- Supplier Seminars
- Plant Tours
- Other activities could be acceptable. This list is not exhaustive.

VOLUNTEER SERVICE

The Volunteer Service component of the Pre-Registration Program is designed to ensure that all EITs and GITs:

- (a) develop an appreciation of the importance of volunteer service to, and on behalf of, the engineering and geoscientific professions.
- (b) understand the value of volunteer service to their long-term personal development; and
- (c) assist in improving the awareness of the contributions of professional engineers and geoscientists to society.

Volunteer Service hours must be input ONLINE at the Intern's personal profile.

To qualify as a professional engineer or professional geoscientist, each EIT/GIT must participate in a total of at least 48 contact hours of Volunteer Service activity over the 48 months of the program. Interns who have gone through the academic assessment process will be required to do 12 hours of volunteer service rather than 48.

Volunteer service can be EITHER professional or community service activities. See below for examples.

PROFESSIONAL SERVICE

In addition to maintaining competence, professional engineers and professional geoscientists have an obligation to contribute both to the advancement of the body of knowledge within which they practise, and to the regulation and advancement of the professions in general. They are also obliged to understand the social implications of their professions. The Professional Service component of the Pre-Registration Program is designed to instill in EITs and GITs the importance of becoming involved, on a voluntary basis, in the regulation and advancement of their professions.

The following list of Acceptable Professional Service Activities is intended only as a guideline and is not an exhaustive list. Other appropriate activities will be approved on an individual basis.

Acceptable Professional Service Activities

General Guideline: As a general rule, one Professional Service hour will be credited for every hour of participation in an activity. The EIT/GIT must specify the number of hours of participation for each activity undertaken.

The following list of Acceptable Professional Service Activities is intended only as a guideline and is not exhaustive. Other appropriate activities will be approved on an individual basis.

- Participate in organizing or making a presentation at an Association general or chapter meeting or seminar
- Serve on an Association committee
- Assist in organizing a technical society function (seminar, meeting, etc.)
- Serve on a technical society committee
- Serve on a Board or Committee in an engineering or geoscientific capacity
- Provide job shadowing for a student
- Mentor a student on a volunteer basis, outside the workplace
- Participate as a judge at a science fair
- Prepare and deliver a presentation on engineering or geoscience as a career to an elementary, junior or senior high school class, or to a youth organization (eg. 4H, guides or scouts, junior achievement, etc.)
- Participate in career days or a careers symposium by staffing a booth and/or preparing and setting up a display on engineering or geoscience
- Participate as a Production Advisor to a Junior Achievement Company
- Prepare a technical paper for a conference and/or publication
- Present a technical paper
- Referee a technical paper
- Sponsor an engineering student at the annual engineering student dinner (2 hours max./event)

COMMUNITY SERVICE

The Community Service component of the Pre-Registration Program is designed to provide an alternative to Professional Service activities. As of November 2004, at the EIT's/GIT's option, up to 100% of the Volunteer Service hours may be acquired through volunteer work on non-technical, community-based activities, if it satisfies the criteria.

The intent of the Community Service option is twofold:

- To produce well-rounded engineers and geoscientists by developing skills in such non-technical areas as management, organization, and communication outside of the workplace.
- To improve public awareness of engineering and geoscience and the APEGM through volunteer work with non-technical organizations.

The following list of Acceptable Community Service Activities is intended only as a guideline and is not exhaustive. Other appropriate activities can be approved on an individual basis.

Acceptable Community Service Activities

General Guideline: Community Service activities should enhance such professional, non-technical skills as organization, communication, public speaking, and coordination/management. The Community Service must benefit the receiving organization and must contribute to the development of the EIT/GIT. The activity should involve interaction with others, and the time spent must be volunteered. The skill(s) enhanced must be identified by the EIT/GIT during the reporting of the activity. As a general rule, one Community Service hour will be credited for every hour of participation in an activity.

- Holding a board position and actively participating in the operation of a community club, cultural group, or religious organization
- Coaching or managing a team
- Organizing a cultural event
- Participating in a community volunteer organization such as the Lion's Club or the Big Brothers/Sisters Association
- Assisting in the organization and production (sound, lights, stage etc) of a community event such as a play or concert
- Organizing and coordinating a charity event
- Giving blood (1 hour maximum per donation)

Examples of Unacceptable Community Service

Please note that activities such as the following will **not** be considered acceptable:

- Coaching, tutoring or mentoring of members of the applicant's immediate family (parents, children, siblings and first cousins.), however, doing these activities for individuals who are not immediate family is acceptable.

Note: For Pre-registration program applicants, the Experience Review Committee will consider only professional development activity and volunteer service activity obtained during the time period when the applicant is either enrolled in the Pre-registration program or, if applicable, in the Academic Assessment process.