

An internship, to develop the six common competencies of engineering!

You've started or you are getting ready to start your internship? Here is a step which could prove to become as important for your career as your engineering training! How? First of all, by taking advantage of these 36 months to get as much experience as possible working alongside a seasoned engineer. And by acquiring the six competencies of which the Ordre the ingénieurs du Québec (hereafter "the Ordre") recommends full command. Six competencies, you say?

SIX COMMON YET EVER CHANGING COMPETENCIES

You think young engineering graduates possess all the knowledge they'll need throughout their career? Nothing could be further from the truth! In a fast evolving and ever changing world, engineers must always update, improve and develop their competencies ... in short, engineers are eternal learners!

It is in this mindset that junior engineers must understand and engage in their internship, that is to say they should think of it as they start to develop their skills as future engineer. Over and above that, the internship period is when engineers have the privilege of working under the immediate direction and supervision of a seasoned engineer, an ally who can not only answer all their questions but someone who can also impart the ins and outs of their future profession.

AVOIDING BAD HABITS FROM THE OUTSET

They say that a habit, good or bad, is formed as of one's first steps in a given field and that such habit is then hard to break. The internship period represents the best opportunity one has to acquire those good habits that will stay with you throughout the course of your career. Don't know where to start?

The Ordre has defined six competencies specific to engineering and common to every area of practice. These competencies are fundamental for engineers. You can't go wrong by looking to developing these competencies as of your internship period.

SIX COMPETENCIES REQUIRED TO PRACTICE ENGINEERING

The following are the six competencies you can start working on acquiring or developing as of today, with the help of your supervising engineer:

1. Assume one's status as a professional

Being a member of a professional order entails many responsibilities, such as protecting the public, of which

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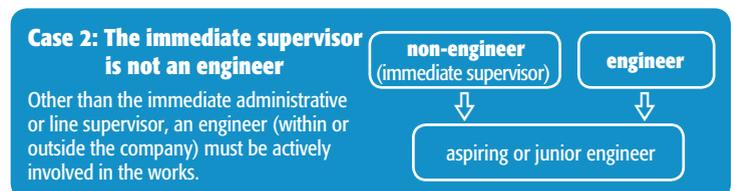
you can never lose sight regardless of your work environment, as well as respecting official rules. In that respect, your supervisor will help you be thorough and work in a responsible manner, at all times and under any circumstances.

2. Resolve problems using applied sciences and trade practices

The practice of engineering consists mostly in solving problems. In order to properly carry out your work, you must be able to define a need and its context, then elaborate appropriate solutions and implement them, all the while using applied sciences and trade practices. With your supervisor, you will learn, among other things, to consider all of the elements at play and comply with applicable standards and regulations.

3. Communicate effectively

Engineers are at the heart of the decision making process. You will have to explain, promote and convince, as a matter of practice. Consequently, you will have to learn to express yourself clearly and simply. On that point, your supervisor



can share the fruits of his or her experiences and guide you towards the right path.

4. Ensure the quality of one's work and activities

It is the engineer's responsibility to ensure that his or her work complies with the highest standards in force. Throughout each step of a given project, your supervisor will have you verify that the methods, tools and materials used correspond to the project's requirements.

5. Manage technical risks

Managing risks means thinking of everything. Because of his or her experience, your supervising engineer will help you anticipate the main consequences that could arise from a design or the use of a product.

6. Managing activities, technical teams and projects

Early on in their careers, engineers are often called upon to lead technical teams and various activities. This duty requires abilities and knowledge associated with a variety of areas such as managing projects, organizations, human resources and change. During your internship, your supervisor can involve you in situations which could be quite informative with respect to management.

As you can see, the internship period can be very beneficial to those who know how to use it to its full potential. By acquiring more in-depth and relevant experience, you will become professional and autonomous. In short, you will be ready to get your engineer's permit.

Supervisor and sponsor, two different roles

With respect to a junior engineer, engineers can play two distinct roles: supervisor and sponsor. The Ordre's sponsorship program allows junior engineers to be sponsored by an engineer to ensure a seamless integration within their professional environment.

This activity is optional and includes a series of six meetings spread out over several months. During these meetings, the sponsor (considering that he or she is not the supervising engineer) should never discuss the technical aspects of the junior engineer's work, so as to avoid committing his or her professional liability.

To know more about this program:

www.guidedufuturingenieur.oiq.qc.ca, section 5.2.