

To prepare



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Spanish translation

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Not long ago, the Mechanical Engineer's student chapter of the University of Guanajuato organized a panel in which former members were invited to share how their undergraduate experiences helped to shape their professional life. During the questions and answers session one of the attending students asked the panel:

«— *What can we do today as students to gain experience as engineers? Because job postings require experience.* »

This is an old question that still haunts us. Long time ago during my college years this question arose more than once among friends. It is because it looks just as the old dilemma of the chicken and the egg.

The panel offered several pieces of advice to the audience. They can be summarized as: *companies require people that are ready to contribute to the business. Instead to worrying concentrate on your education.* Reading between lines, the answer to break the chicken-egg cycle is exactly like the boy scouts have been saying: **be prepared.**

The answer is both obvious and obscure. To a student society tells that their job is to prepare. So the student is tasked with acquiring the tools (knowledge) and the abilities to use them. Then, why is that students are often confused on how to be prepared for the job ahead? Why do students feel that «experience» is missing?

To shine a light of clarity we must address the two elements of preparation: **knowledge** and **practice**.

Let us start with the lowest hanging fruit: the **knowledge**. Schools are the institutions that society has developed to prepare its citizens. We attend school to become literate, to play music or sports, to learn or acquire abilities needed by a chosen profession. Universities develop the curricula and offer students the necessary knowledge to receive a degree. For example, the University will make sure that to become a lawyer the student knows the law and how to use it. Then, it is the student's responsibility to learn and to use that acquired knowledge. Earning a degree, acquiring all the necessary knowledge, is the first and most important step towards being prepared for that job. In other words, to being able to apply for an accounting position the applicant must have an accounting degree, without it no amount of experience will open the door.

However, everyone recognizes that the job will require much more than just the degree-specific knowledge. In college, they are known as extra-curricular, they include but are not limited to: foreign languages, business awareness, effective communication (both verbal and written), documentation and knowledge management, computer skills, team work and leading, best practices, professional habits, performance under pressure, common sense, and even studying other disciplines. Universities make the effort to provide opportunities to «round up» the student's education but since these are not really part of the degree core, **it is on the student to value and develop these skills. ALL of them.**

Albert Einstein said «genius is 1% talent and 99% hard work». It is not enough to acquire the knowledge, it is in fact more important to practice, to put it to use. Think of any Olympic medalist, whereas they may have an innate talent for the sport, they have spent years training to mastering it. To master the materials in class there are homework, testing, projects, reading, seminars, internships, dissertations, research, etc. Student involvement in these degree activities is required and is up to the student to make the most of it. But, how to master the extra-curricular skills? Some of them via more classes, but the others only thru exposure. Via a conscientious effort to try, to learn. Here is a tip on how to expose yourself: **volunteer for all those activities which do not make you comfortable.**

By definition, uncomfortable situations are those in which the required skills have not been mastered. And those are the events that will push you to develop, practice and master **special** (different) skills. Join an arts club, play team sports, volunteer in the community, volunteer on professional society, network with peers, join other students on activities relevant to your studies/career. It is during the college years that one can try, learn from mistakes, seek advice and build the habits that will define your professional style.

Mastering of these abilities will make the student a precious commodity in the market place. Consider a soldier which is not only prepared, but ready. Preparation has an implication of doing something for the future whereas readiness is the state of mind that allows you to immediately confront a problem and produce results. Thru preparation you have confronted many problems in the past so that they are no longer problems to be solved but experiences to draw from. Do you remember the time when knotting up your shoes laces was a complex problem, but you learned and practiced to the point of mastering, so this morning the shoes were tied without even thinking? **You were ready.**

Same principles apply to professional issues for which instruction, uncomfortable situations and practice will make you ready to shine. In fact, the higher level of readiness that you achieve will open more opportunities. This was brilliantly stated by doctor Louis Pasteur (1854) «Fortune favors the prepared mind». It tells us that the opportunities in life are only presented to those that are prepared. To the rest, it seems that he/she just got lucky. We know now that is not luck, is the product of work and dedication.

I will leave you know with the same question the interviewer for that dream job is going to ask you. But let me put it the same way that Mr. Malone (Sean Connery) said it in the movie *The Untouchables* (1987) «What are you prepared to do? ... and then, what are you prepared to do? ... you must be prepared to go all the way...are you ready for that? ».

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