

10 Things Entry-Level Engineers Should Know

Young engineering professionals can put their careers on the fast track by developing a “business plan” for their professional development.

SO, YOU'RE AN ENTRY-LEVEL ENGINEER—YOU'VE WORKED HARD TO EARN A TECHNICAL DEGREE AND NOW YOU WILL CONQUER ALL! Let's round out that degree with real-world elements for professional success.

Your career is a constant work-in-progress. To get where you want to be, you need to capitalize on learning opportunities while periodically evaluating your progress.

Our Human Resources Advisory Group at ZweigWhite works with folks who are striving to build their careers. They advocate striking a balance between communication and technical skills. Jennifer Hu, my ZweigWhite colleague, identifies four skill areas that build “training” into your day: technical, problem solving, efficiency, and client relations.

Technical Skills: Honing your technical skills spans a range of activities: design; development and review of construction documents; checking of code compliances; coordination with consultants or contractors; communication with your project manager; and perhaps even guiding a design team through the project process. If you strive to become an “expert” at your field, then technical growth also involves developing your expertise within a particular type of market (such as higher education) or project (such as laboratory buildings).

Problem Solving Skills: At some point as an entry-level engineer, you are faced with increasingly complex issues like conflicting design requirements, unsuitability of conventional materials, and difficult coordination requirements. You are responsible for communicating problems to the project manager or directly to your client. Ultimately you're on a path to anticipate problems before they arise.

Efficiency Skills: One way to work smarter is to ensure that you are crystal clear on the productivity and profitability goals for each project to which you are assigned. As your responsibilities grow, the leadership may look to you to prepare suggestions for staffing requirements and production in order to keep project performance on track.

Client Relations Skills: Perhaps the most crucial area for growth and on-the-job training is through exposure to various types of clients and their needs, temperaments, and expectations. In time, the more you are trusted internally, the more likely it is that you will have a chance to build rapport and develop relationships directly with clients.

These four on-the-job training areas require attention, a proactive desire to grow, self-monitoring, and performance evaluation. Putting your time and energy into the earlier years of your career has an incredibly positive impact on the later years of your career—that's a promise, speaking from personal experience. Yet experience comes hand-in-hand with increased expectations. Because I am a marketing consultant, I have a bias toward the value one can offer through business development (BD) and marketing contributions. I find those contributions so valuable, in fact, that I am willing to bet that solid BD and marketing contributions will catapult you to the top of your firm, faster than you may imagine. Below I have proposed ten things—grouped by importance—that every entry-level engineer should know to better his or her career from the onset.

The big ones:

1 Prepare a personal business plan. Company business plans involve a vision, the creation of goals, and identification of resources required to help meet those goals. Just like a company develops in stages, so does your career. By documenting your own personal business plan, you are creating a road map that will prepare you for challenges and enhance your experience along the way. First, take a personal inventory. What are your strengths and weaknesses—not just related to professional attributes, but also to any sorts of hobbies and outside activities that could at first seem unrelated to your professional career. Now, based upon these strengths and weaknesses, what resources do you need to further develop the strengths and overcome the weaknesses? Training? Technology? Leadership or a mentor? Exposure? Licensure? Next, envision yourself and where you'd like to be by this time next year; then, in five years. Write down your goals and share them with someone. By sharing them with another person, you will remain far more accountable to your own promises for growth.

2 Become fluent in all “languages” at your firm. Perhaps you come from a 15-person boutique or 1,000-person giant; the truth is that administrative “support” functions greatly impact the success of the firm; be it human resources, accounting, or business development and marketing.

In a larger firm, there may be an opportunity to take advantage of cross-training in these areas. One of the largest construction management firms in



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the country has an incredible cross-training program where the new technical staff will literally sit, breathe, and work within these administrative departments for a specific length of time. This creates empathy and wisdom. Other firms have lunch-and-learn opportunities that focus on both technical and non-technical areas. If those avenues for access do not exist, or if you come from a fairly small firm where people are wearing multiple hats, then why not talk directly to someone responsible for, let's say, accounting? Talk to that person about accounts payable and receivable; learn about their billing processes for various engagement types; and appreciate the importance of delivering quality work to a client, which encourages timely payments. Get accustomed to their language, priorities, challenges, and what you can do for one another to enhance your respective jobs. With serious thought, you may discover avenues for co-improvement. Remember, your firm is intertwined—it's a system.

3 Proactively offer to help with—and learn from—the business development and marketing team. I can say from 14 years of personal experience working as the director of business development in

several Chicago firms that I had my favorite technical staff. That's right, and I'm not ashamed to say so! Who were my favorites? I liked those who were sincerely interested in getting more and better business for the firm—the ones who didn't complain when I needed project information, who would rehearse for formal interview presentations, who were savvy enough to join me as technical representatives on prospect visits when the firm's partners were too busy to join me, and who pointed out news that might indicate a relevant project opportunity. I favored the ones who asked, "How can I help?" I was so proud of them for stepping into the unknown and for caring enough to understand that everyone does marketing. I was willing to spend extra time with these folks to enhance their areas of strength in BD and marketing. Maybe you aren't a public speaker or a charming networker. Maybe you aren't a writer or a new business strategist. But maybe, just maybe, you have other untapped talent that can, in fact, contribute to the BD and marketing effort.

And, seize these opportunities:

4. Join one external networking group where potential clients may be present;

serve on a committee and strive for board level.

5. Concentrate on existing client relationships and the best way to grow them further.
6. Identify role model(s) and/or mentor(s) whom you can emulate and learn from.
7. Align yourself with a peer "buddy" so you can motivate one another on the progress of your personal business plans.
8. Find a gap in your firm that no one wants to fill, and fill it yourself.
9. If there is someone to whom you'd like to become a "right-hand" person, don't be shy about sharing that goal.
10. And finally, keep yourself well-rounded in whatever way you please: as a softball player; marathon runner; gallery enthusiast; photographer—anything that will maintain the multi-faceted, talented person that you know you are.

As an entry-level engineer, technical competence is the bare minimum required to keep your job. By being mindful of built-in growth opportunities and by being assertive about rounding it all out, you will move quickly along the path you create for yourself. **MSC**