

Engineering Students! What Happens After Graduation?

Dave Canfield, E.I., Staff Engineer, Applied Technology & Management, Inc.

Hunter Kelly, E.I., Staff Engineer, Applied Technology & Management, Inc.

Stephan J. Nix, Ph.D., Director, UNF School of Engineering

To many engineering students, graduation is an exciting, yet scary, experience of searching for jobs, interviewing, and hoping to find a good job. In many regards, searching for a job is similar to searching for a right college. Just as there are a wide variety of colleges, there are many public and private sectors in which to look for a job. Private sectors include consulting, manufacturing, and sales, among others; while the public sectors include municipal, county, state and federal governments and various non-governmental organizations. There are some important considerations for future engineers to understand before - and soon after - graduation. We'll take you through many of them.

The undergraduate engineering experience does a great job in preparing the student with the essential qualities of an engineer: good work ethic, responsibility, organization, and technical knowledge. These qualities are developed through working in project teams, meeting deadlines and schedules, attending classes, homework, and preparing for tough exams. These same traits are used following graduation to become a productive employee and a respected member of the engineering profession.

While college helps establish the building blocks for the professional world, there are many aspects of engineering for which college does not prepare you. Concepts such as "billable hours" and "utilization" are part of few, if any, undergraduate curricula. While in college, students are concerned with learning engineering concepts and getting good grades, and generally not with things such as marketing and profitability. However, the biggest difference between college and the "real world" is that in the "real world" there are no grades. You will be responsible for producing the high-

est quality work possible; a mere "passing" grade is not acceptable. If an engineer constantly produces "C" products, not only is the employer's profitability and reputation damaged, but public safety is also put at risk. Designing a "C" bridge endangers the public. An electronic device designed to "C" standards will not succeed in the marketplace.

The best way for an engineering student to bridge the gap between college and the professional world is to secure an internship or co-op position with an engineering company while still in school. These positions allow you to gain valuable "hands-on" experience, from something as simple as seeing a set of plans and specifications to gaining a firsthand understanding of how a business operates. Because of this many employers prefer new graduates with engineering-related job experiences on their resumes. Internships and co-op positions also give insights into the type of career you may want to pursue or what type of work environment is best suited to you.

New engineers should also understand the importance of obtaining the Engineering Intern (E.I.) certification. E.I. certification is the first step toward becoming a licensed Professional Engineer (P.E.) and is achieved by passing the Fundamentals of Engineering (FE) exam. Your college education will do a good job of preparing you for the exam, but in order to take the best advantage of that preparation you should take the FE exam just before leaving college (students are allowed to take the exam when close to graduation). Some engineering colleges require the student to take the FE exam before graduation, and others do not. Regardless, we recommend taking the exam before graduation while the material is still fresh. If you wait, you will probably end up spending considerable time (and likely, money) reviewing and re-

learning material you haven't actively used since leaving college! In addition to being the first step toward the P.E. license there are other, more immediate, advantages of obtaining E.I. certification including increased appeal in the job market and, probably, a higher salary. After several years of experience you can take the exam leading to designation as a Professional Engineer. In many engineering disciplines the P.E. license is important, even vital, for career advancement and we recommend that it be one of your primary goals.

Another thing to consider as you start your engineering career: a graduate degree. As technology progresses and becomes more complex, the need for advanced engineering education increases with each passing year. Many employers recognize the value of advanced studies by reimbursing employees for some or all of the tuition for a graduate degree and by increasing their salaries. The first graduate degree pursued by engineers is the Master's degree, which typically requires one to two years of study. Generally you can receive a Master's degree in a specialized technical area (typically a Master of Science or Master of Engineering) or in business and management (often a Master of Business Administration. (Some engineers go on to pursue the doctoral degree, especially those wanting to go into research and teaching.)

We hope we have given you - the aspiring engineer - some insight into what to expect after graduation. Regardless of the engineering career you pursue, be prepared for exciting challenges, personal fulfillment, and professional rewards. Good luck!

Engineering the First Coast

Celebrating Engineers Week 2007

www.nefl-eweek.org

Chairperson's Message



Engineers Make a World of Difference – what a great theme for Engineers Week 2007.

As professional engineers, we spend much of our time solving problems and changing the world around us. We design buildings to provide places of busi-

ness and residence, we create systems to improve communications, and we develop better ways to do just about everything. Engineers are at the forefront of the emphasis on the conservation of natural resources – we work to make our world more energy efficient, try to find new ways to recycle used materials, as well as strive to be better stewards of the limited resources that we have available. Engineers are the key to a client's needs, an industry's success, and the world's economic future.

Engineers Week was established in 1951 by the National Society of Professional Engineers to raise public awareness of the contributions that the engineering professions make to enhance the quality of life within our communities and around the world. It is a time for engineers to celebrate our profession, to show the public what we do, and to encourage young people to consider a career in engineering.

In Jacksonville, we celebrate Engineers Week with a calendar of events that include engineering society meetings, service projects, educational programs, and social events that raise money for student scholarships. I want to thank

the following engineering societies for their interest and support in making Engineers Week a time for each of us to acknowledge the differences that engineers make in our world.

American Concrete Institute

American Public Works Association

American Railway Engineering and Maintenance of Way Association

American Segmental Bridge Institute

American Society of Civil Engineers

American Society of Heating, Refrigerating & Air Conditioning Engineers

American Society of Mechanical Engineers

American Water Works Association

Florida Engineering Society

Florida Structural Engineers Association

Florida Water Environment Association

Institute of Transportation Engineers

National Society of Black Engineers, Jr. Community Chapter

Society of American Military Engineers

Society of Marketing Professional Services

Society of Women Engineers

University of North Florida

U.S. Army Corps of Engineers

Joe Watson

Planning Committee Chairperson

Northeast Florida Engineers Week 2007

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