

CONSTRUCTION

## Get a Master's Degree in Engineering? Umm...

**Executive Summary.** Obtaining a master's degree in engineering is a personal and professional choice. Here's a bit on why I did it and what it was like.

In the engineering world, why obtain a graduate degree? Seems that the engineering world is starting to require, certainly preferring, to see a master's degree in engineering with their employees. In some firms, the rungs of the corporate ladder are limited without this degree, and you'll remain in more of a technician status than a principal engineer.

In addition to the design firms, professional engineering boards also offer an outright benefit to the degree. Boards often offer credits against required industry service by having



this advanced degree. So, if you are planning on going the engineering route, this additional degree is worth the time and effort.

**In the construction world, why obtain a graduate degree?** There's no professional reason to do so. If it's a personal goal, go for it. Frankly, even a professional engineering license doesn't do much for the "typical" project manager except look good on a business card and allow a little bit of toe-to-toe with the engineers of record.

**What's the process like in executing the degree?** There are usually two routes: write a thesis or write a report. This, of course, also comes with classes. The major difference was the amount of homework. Homework as an undergraduate was two problems per page with some calcs. Homework in graduate school was reading technical papers and 12 pages per problem. It's just a lot more effort. A lot more time.

**My story.** In undergrad I was a "B" student. Not exactly upper echelon engineering school material. But I love engineering and I've loved my career. My choice to pursue a master's degree in engineering was 110% personal. I was working for a contractor in Texas when I gave notice and said I was going back to school. They were pissed off. I did my degree in 15 months and then moved up to Seattle with another contractor. I went the departmental report route and studied bracing of masonry walls during construction; I really wanted to study temporary

Scott Jennings, P.E., is the President of <u>SJ Construction Consulting, LLC</u> (808) 271-5150, sj@sjcivil.com. He is the former owner of a heavy/civil construction company and now provides cost estimating and training, litigation support, construction management, and efficiency advice to contractors. He is also the author of numerous construction children's books at www.amazon.com!



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structure failures in construction, but that didn't pan out. In my graduate program, I took the following courses:

- Earthquake Engineering
- Advanced Steel Design
- Advanced Reinforced Concrete Members
- Design of Wood Members and Systems
- Plastic Design in Metals
- Prestressed Concrete
- Structural Concrete Bridges
- Applied Finite Element Analysis
- Forensic Engineering: Materials and Structures
- Stability of Structures
- Corrosion Engineering

When I obtained my P.E. license in 1998 (right after my master's and at the beginning of my employ in Seattle) as an employee of a heavy/civil contractor, my boss came over patted me on the back and said "good job". That was it. No raise,



no bonus. Nothing other than a "good for you buddy, now let's get back to bidding this job".

In conclusion, I think getting your MS in Engineering is a wise choice if you're going to work for an engineering firm. If you're going the construction route, it doesn't serve a professional purpose. However, regardless of what route you take, if you want a graduate degree for personal reasons just go for it. I promise you you'll never regret having earned it and no one can ever take it away from you.

Work safe!

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