Is engineering a profession?

Martin Rowe - September 01, 2006

Engineering is one of the few fields where a bachelor's degree curriculum provides much of the background needed to enter the work force. You don't always need a master's degree, although people find that employment opportunities increase if you have it. "I'm finding that a lot of the companies that contact me are looking for master's degree level people," said Professor Steve Long of UCSB. All others we interviewed concur, saying that you can't fit enough into the bachelor's degree anymore.

Even if an employer requires an ECE master's degree, you still don't need a license to be an engineer. Thus, some people argue that engineering isn't a true "profession" compared to law, medicine, or social work.

"I think we've reduced the status and stature of engineers compared to lawyers and physicians," said Moshe Kam, a professor at Drexel. "It has to do with gross deficiency in registration and in the definition of the first professional degree."

WPI professor Fred Looft questioned that philosophy, saying, "You don't need a master's degree to work in sales." He may be right, but plenty of sales and marketing people in electronics have advanced degrees. They may have entered the work force with a bachelor's degree, and then gone on to get a master's degree in engineering or business while working.

"We can control entry like the AMA does, and become a higher level, but narrower profession," said Professor John Orr of WPI. "Barriers to entry have their own distasteful aspects. Personally, I'd like to see the master's degree as the entry level to the profession, but I recognize that we're just not there yet."

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