



Roles BME students take in their organizations?

Job Title	Description
Internship for engineering students	Formal internship for all engineering disciplines. Rotation through various areas in Medtronic to gain exposure.
Project need-based internship	Different scientists/project leaders request interns to help handle needs as they arise. E.g. biostatistician analyzing expensive clinical trials, BME attempting to find correlations on what sort of studies are most likely to get published.
R&D Engineering position	Prototypical engineering position – applying concepts to create and refine devices designed for surgical implantation
Field Clinical Engineer	Run clinical field studies – work at site, program device, really are most involved in operating med device studies
Sales Representative for engineers (clinical specialist)	Work under formal sales reps, also involved in implantation of devices and programming, scrubs in OR working with doctors.

What technical skills do they look for in BME students? NOTE: Expectations diverge from what might be expected due to different field (medical science vs. direct involvement with engineering)

Job Title	Skill	Expectation Level
Field Clinical Engineer / Clinical Sales Specialist / R&D engineer who	Familiarity with relevant physiology and anatomy (e.g. cardiac, neuro)	There is little in the way of formal expectation levels. Primarily, they would expect to see a few things: 1) suggestion that candidate has these skills and can continue to develop them; 2) sense that candidate can get a useful grip of these skills and quickly become a contributing member of their team; 3) as a candidate progresses through their education, progress in these skills is desirable, i.e. she would not expect a freshman to have any knowledge of cardiac physiology, but a senior who was



interacts with medical science team (physicians and medical scientists) / interns with medical science team (continued from above)	Technical translation skills (bridging gap between engineers and scientists)	similarly lacking in such knowledge would be a weaker candidate than another senior with that knowledge. Again though, there are no formal expectation levels associated with these skills – simply put the better the skills are, the stronger the candidate is. (continued from above)
	Familiarity with clinical study design and terminology	
	Research skills: reading, writing, assessing protocols and analyzing results	
	Literature review skills	

What soft skills do they look for in BME students?

Soft Skill	Description
Communication skills	Important to be reliably reachable and communicative, and to be able to communicate clearly, concisely, and professionally (especially via email)
Succinctness	Ability to get to the point and not say more than is relevant is valued, especially in an interview setting
Writing skills	In a non-technical sense – the ability to structure and present writing in clear, accurate English which is conducive to understanding and can effectively tell a story or make a pitch
Physician interaction	Ability to manage surgeon egos (these are cardiac and neurosurgeons, after all) and work in peer-to-peer collaboration with physicians while still presenting oneself as an expert in his or her field is highly valuable in engineers who will be working in clinical settings (FSE's, CS's especially)