This course is for students who already have basic skills in shop, engineering drawing, electronics and programming. This includes having taken BMEN 2151 or similar courses in ME and EE. The Practicum includes a seminar series on medical device innovation and independent work on a medical device project (either alone or in teams of up to three students). Your project may be electromechanical in nature and/or incorporate molecular and cellular biology.

*If the school remains closed this fall you will be able to check out a handheld oscilloscope, function generator and multimeter; breadboard with built-in dual digital power supply; and project box with components and tools. How far you wish to proceed with a prototype depends on the nature of your project and if the school facilities are available for use (Anderson Labs, Student Machine Shop and Medical Devices Center.) In most instances a complete design (or series of process steps) rather than physical construction or lab verification will suffice if the school facilities are not available.

**Seminars include...**

- Physician lead discussion of design opportunities in medicine.
- Device discovery and ideation, product life cycle, and design controls.
- FDA regulations, including premarket (510k and PMA) and post-market requirements.
- Intellectual property, including patents, copyright, trade secrets and trademarks.
- Technology transfer and commercialization.
- Risk management & human factors engineering.
- Entrepreneurship in the medical device industry.

**Prerequisites...** Any CSE or other student who has technical skills in engineering drawing, shop, and electronics may take this course. While BME students are given preference, seats are likely to be available. Please email Prof. Saliterman for a permission number if you did not take BMEn 2151, or are in ME or EE.

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