

BME Curriculum Elective Descriptions – Classes of 2019 and beyond

BME Focus courses are three courses taken to complete one of two tracks chosen by the students.

For the Medical Device Innovation and Entrepreneurship (MDIE) track:

- Focus 1: BME 2050 Medical Device Dissection (3 cr.)
- Focus 2: BME 3050 Medical Device Design I (3 cr.)
- Focus 3: BME 4050C Medical Device Design II (3 cr.)

For the Research Translation Innovation and Entrepreneurship (RTIE) track:

- Focus 1: BME 2010 Research Methods (3 cr.)
- Focus 2: BME 3010 Research Design I (3 cr.) (may be substituted for BME 4061 Biostatistics in Research if BME 3010 is not offered)
- Focus 3: BME 4010C Research Design II (3 cr.)

BME Focus courses are 3 credit hours each for a total of 9 credit hours in the BME major.

BME ELEC courses are BME courses selected by the student from the following list:

- BME 4021C Tissue Biomechanics (4 cr.)
- BME 5101 BME Survey (3 cr.)
- BME 5110 Biomedical Ultrasound (3 cr.)
- BME 5111 Magnetic Resonance Imaging (3 cr.)
- BME 5112 Biomedical Signal and Image Processing (3 cr.)
- BME 5124 Joint Biomechanics and Measurement Methods (3 cr.)
- BME 5130 Functional Tissue Engineering (3 cr.)
- BME 4061 Biostatistics in Research (3 cr.)
- BME 2010 (3 cr.) and BME 2050 (3 cr.) in cases where students chose to take both Focus 1 courses to help them select which track to complete

BME 5099 Special Topics does not fulfill this requirement. BME 1050 CAD does not count for this requirement. BME ELEC courses must be at least 3 credit hours each.

BIOL ELEC is a biology elective course that is BIOL 1081 or any higher-level biology course for a minimum 3 credit hours. The most common courses taken to fulfill this requirement are BIOL 1081 and BIOL 2002C. BIOL ELEC must be at least 3 credit hours.

TECH ELEC and **TECH-PROF ELEC** courses are technical or professional electives. Technical electives are SCIENCE, MATH, or ENGINEERING courses that are 2000-level or higher and that do not repeat a similar course in the curriculum or fulfill another degree requirement. It should be a course that is used to help prepare for a student's career, graduate or medical school. Courses required for a minor in math, a science, or engineering (e.g. Math, Chemistry, Materials Engineering, Computer Science) meet the technical elective criteria. BIOL 1082 is considered a technical elective even though it is a 1000-level course. A maximum 6 credit hours of technical electives may be used as professional electives. For example, professional electives taken from the Lindner College of Business or Communications department are subject to the 6-credit-hour maximum. ENGR 3000-level and 5000-level courses count as technical electives, and are considered ENGINEERING courses and not professional electives. TECH and TECH-PROF electives are 12 credit hours total in the BME major.