

CURRICULUM CLASS OF 2011

The undergraduate program in Biomedical Engineering is built upon a rigorous engineering science foundation that is, in turn, based upon a broad curriculum of natural sciences, mathematics, electives in humanities and social sciences, and design. Although students are encouraged to concentrate their professional electives in a sub-field of interest in biomedical engineering (e.g., biomechanics, bioelectronics, bioelectricity, biomaterials, or tissue engineering) or medical sciences (for pre-med students), there are no formal “tracks” within the sequence. ***The undergraduate curriculum is designed primarily to prepare our undergraduates for advanced study. More than two-thirds of our BSE graduates continue on to graduate or professional training after graduation from Tulane.*** Our philosophy of ‘rigorous breadth’ in biomedical engineering can best be characterized by the undergraduate curriculum described below.

Tulane University BMEN Undergraduate Curriculum Class of 2011

Year 1

Semester One	Semester Two
18 Hours	18 Hours
Course Title (Credit Hours)	Course Title (Credit Hours)
MATH 121 Calculus I (4)	MATH 122 Calculus II (4)
CHEM 107/117 General Chemistry I & Lab (4)	CHEM 108/118 General Chemistry II & Lab (4)
ENGL 101 Writing (4)	CULTURAL Cultural Knowledge Elective (3)
PHYS 131 General Physics I & Lab (4)	PHYS 132 General Physics II & Lab (4)
TIDES Tulane Inter. Exp. Sem. (1)	BMEN 241 Statics (3)

	*Service Learn (1) (1 st or 2 nd year)

Year 2

Semester One	Semester Two
18 Hours	18 Hours
Course Title (Credit Hours)	Course Title (Credit Hours)
MATH 221 Calculus III (4)	MATH 224 Applied Math (Diff Eqns.) (4)
CELL 101/211 General Biology I & Lab (4)	BMEN 260 Intro Organic & Bio-Chemistries (3)
ENGP 201 Electric Circuits (3)	BMEN 273 Biomedical Electronics & Lab (4)
BMEN 243 Mechanics of Materials (3)	BMEN 312 Materials Science & Engr (3)
BMEN 201 Experiments & Experimental Design (4)	BMEN 202 Comput. Concepts and Appl (4)

Year 3

Semester One	Semester Two
16 Hours	15 Hours
Course Title (Credit Hours)	Course Title (Credit Hours)
BMEN 303/313 Anatomy & Physiology I & Lab (4)	BMEN 306/316 Quantitative Physiology & Lab (4)
BMEN 344 Biofluids & Biotransport (3)	BMEN 382 Math Modeling (3)
BMEN 371 BMEN Seminar (0)	BMEN 490 Research & Prof. Practice I (2)
BMEN 3xx “Domain” class (3)	BMEN 3xx “Domain” class (3)
CULTURAL Cultural Knowledge Elective (3)	CULTURAL Cultural Knowledge Elective (3)
*PELECT/BMEN 6xx Professional Elective or Graduate Class (3)	

Year 4

Semester One	Semester Two
13 Hours	12 Hours
Course Title (Credit Hours)	Course Title (Credit Hours)
BMEN 403 Team Design I (2)	BMEN 404 Team Design II (3)
BMEN 491 Research & Prof. Practice II (2)	BMEN 672 BMEN Seminar (0)
BMEN 671 BMEN Seminar (0)	CULTURAL Cultural Knowledge Elective (3)
CULTURAL Cultural Knowledge Elective (3)	*PELECT/BMEN 6xx Professional Elective or Graduate Class (3)
CULTURAL Cultural Knowledge Elective (3)	
*PELECT/BMEN 6xx Professional Elective or Graduate Class (3)	*PELECT/BMEN 6xx Professional Elective or Graduate Class (3)

128 credit hours

***Students must take 1 one-credit Service Learning class during their first two years (noted in credits for 1st semester of Year 1), 3 Professional Electives and 1 BMEN 6xx graduate course as a follow-up to a BMEN 3xx domain course.**