

CURRICULUM CLASS OF 2013
Undergraduate Director: Dr. Rice
Class of 2013 Advisor: Drs. Rice and Ahsan

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.

Year 1

Semester One	18 Hours	Semester Two	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)	CULT	Cultural Knowledge Elective (3)
PHYS 131	General Physics I & Lab (4)	PHYS 132	General Physics II & Lab (4)
TIDES	Tulane Inter. Exp. Sem. (1)	ENGP 141	Statics (3)
*****	*Service Learn (1) (1 st or 2 nd year)		

Year 2

Semester One	17 Hours	Semester Two	18 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)
ENGP 243	Mechanics of Materials (3)	ENGP 312	Materials Science & Engr (3)
BMEN 231	Product & Experimental Design (3)	BMEN 202	Comput. Concepts and Appl (4)

Year 3

Semester One	16 Hours	Semester Two	15 Hours
BMEN 303/313	Anatomy & Physiology I & Lab (4)	BMEN 306/316	Quantitative Physiology & Lab (4)
BMEN 344	Biofluid Mechanics (3)	BMEN 382	Math Modeling (3)
BMEN 371	BMEN Seminar (0)	CULT	Cultural Knowledge Elective (3)
BMEN 3xx	“Domain” class (3)	BMEN 490	Research & Prof. Practice (2)
CULT	Cultural Knowledge Elective(3)	BMEN 3xx	“Domain” class (3)
**PELECT	Professional Elective (3)		

Year 4

Semester One	13 Hours	Semester Two	12 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)	CULT	Cultural Knowledge Elective (3)
CULT	Cultural Knowledge Elective (3)	**PELECT	Professional Elective (3)
CULT	Cultural Knowledge Elective (3)	**PELECT	Professional Elective (3)
**PELECT	Professional Elective (3)		

127 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). **Students take 4 Professional Electives. At least one must be a BMEN 6xx graduate course as a follow-up to a BMEN 3xx domain course.**