

CURRICULUM CLASS OF 2012
Undergraduate Director: Dr. Rice
Class of 2012 Advisor: Dr. Walker

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)	**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.**