

## CURRICULUM CLASS OF 2008

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 2008

#### Year 1

##### Semester One 17 Hours

	Course Title (Credit Hours)
MATH 121	Calculus I (4)
CHEM 107/117	General Chemistry I & Lab (4)
ENGL 101	Writing (4)
PHYS 131	General Physics I & Lab (4)
ENGR 101	Engineering Your Future (1)

##### Semester Two 18 Hours

	Course Title (Credit Hours)
MATH 122	Calculus II (4)
CHEM 108/118	General Chemistry II & Lab (4)
CPSC 101	Software Design and Programming (4)
PHYS 132	General Physics II & Lab (4)
BMEN 102	Elements of BME Design (2)

#### Year 2

##### Semester One 14 Hours

MATH 221	Calculus III (4)
CELL 101/211	General Biology I & Lab (4)
ENGR 241	Statics (3)
ENGR 201	Electric Circuits (3)

##### Semester Two 20 Hours

MATH 224	Applied Math (Diff Eqns.) (4)
BMEN 201	Exp. & Experimental Design (3)
BMEN 260	Intro Organic & Bio-Chemistries (3)
BMEN 273	Biomedical Electronics & Lab (4)
ENGR 243	Mechanics of Materials (3)
HUSL	Human/Social Sciences Elective (3)

#### Year 3

##### Semester One 16 Hours

BMEN 303/313	Anatomy & Physiology I & Lab (4)
BMEN 344	Biofluids & Biotransport (3)
BMEN 371	BMEN Seminar (0)
BMEN 398	Junior Testing Period (0)
BMEN 3xx	“Domain” class (3)
BMEN 3xx	“Domain” class (3)
HUSL	Human/Social Sciences Elective (3)

##### Semester Two 13 Hours

BMEN 306/316	Quantitative Physiology & Lab (4)
BMEN 382	Math Modeling (3)
BMEN 398	Junior Testing Period (0)
ENGR 312	Materials Science & Engr (3)
HUSL	Human/Social Sciences Elective (3)

#### Year 4

##### Semester One 16 Hours

BMEN 403	Team Design I (2)
BMEN 490	Research & Prof. Practice I (2)
BMEN 671	BMEN Seminar (0)
HUSL	Human/Social Sciences Elective (3)
HUSL	Human/Social Sciences Elective (3)
PELECTIVE	Professional Elective (3)
*PELECT/BMEN 6xx	Professional Elective or Graduate Class (3)

##### Semester Two 14 Hours

BMEN 404	Team Design II (3)
BMEN 491	Research & Prof. Practice II (2)
BMEN 672	BMEN Seminar (0)
HUSL	Human/Social Sciences Elective (3)
PELECTIVE	Professional Elective (3)
*PELECT/BMEN 6xx	Professional Elective or Graduate Class (3)

### **128 credit hours**

\*Students take 3 Professional Electives and 1 BMEN 6xx graduate course as a follow-up to a BMEN 3xx domain course.