

Published on UH Department of Biomedical Engineering (<http://www.bme.uh.edu>)

[Home](#) > [Undergraduate](#) > [Course Description](#)

Undergraduate Curriculum Course Description

First Year (16 + 18 credit hours)

Biological Science BIOL 1361/1161	Chemistry I CHEM 1331/1111	Composition I ENGL 1303 or ENGL 1309	Calculus I MATH 1431	Intro to BioE BIOE 1100
Chemistry II CHEM 1332/1112	Calculus II MATH 1432	Physics I PHYS 1321	Computers & Prob. Solving BIOE 1331	Biological Science BIOL 1362/1162

Second Year (16 + 15 credit hours)

Organic Chem I CHEM 3331/3221	Calculus III MATH 2433	Physics II PHYS 1322	Composition II ENGL 1304 or ENGL 1310	
Intro to Mechanics MECE 3400	Eng. Math MATH 3321	Chem. Process. CHEE 2331	Circuit Analysis ECE 2300/2100	US History HIST 1377

Please select only one of the following three options:

BIOMEDICAL ANALYSIS AND DESIGN (BIOMECHANICS) OPTION

Third Year (16 + 17 credit hours)

Visual/Perf Arts 3 hours	Quant Physiology/ Lab <u>BIOE 3340/ 3140</u>	Engr. Statistics <u>INDE 2333</u>	History <u>HIST 1378</u>	Tech. Comm. <u>ENGI 2304</u>
Bioinstrumentation <u>BIOE 4315/4115</u>	Biomedical Microdevices BIOE 4397	Biothermodynamics <u>BIOE 3341</u>	Biochemistry I <u>BCHS 3304</u>	Political Sci. <u>POLS 1336</u>

Fourth Year (15 + 15 credit hours)

Tech. Elective BIOE XXXX	Intro to Reg. Medicine and Stem Cell Engr <u>BIOE 5323</u>	Genomics and Proteomics/ Lab BIOE 4397/ 4197	Political Sci. <u>POLS 1337</u>	Adv. Biofluid Dynamics BIOE 4397
Transport Phenomena in Bio Systems BIOE 4397	Tech. Elective BIOE XXXX	Capstone Design II <u>BIOE 4336</u>	Social Science 3 hours	Humanities 3 hours

Third Year (16 + 17 credit hours)

Visual/Perf Arts 3 hours	Quant Physiology/Lab <u>BIOE 3340/ 3140</u>	Engr. Statistics <u>INDE 2333</u>	History <u>HIST 1378</u>	Tech. Comm. <u>ENGI 2304</u>
Bioinstrumentation <u>BIOE 4315/4115</u>	Tech. Elective BIOE XXXX	Biothermodynamics <u>BIOE 3341</u>	Biochemistry I <u>BCHS 3304</u>	Political Sci. <u>POLS 1336</u>

Fourth Year (16 + 15 credit hours)

Tech. Elective BIOE XXXX	Intro to Reg. Medicine and Stem Cell Engr <u>BIOE 5323</u>	Genomics and Proteomics/ Lab BIOE 4397/4197	Political Sci. <u>POLS 1337</u>	Biomolecular Engr. <u>BIOE 4366</u>
Advanced Biofluid Dynamics BIOE 4397	Transport Phen. in Bio Systems BIOE 4397	Capstone Design II <u>BIOE 4336</u>	Social Science 3 hours	Humanities 3 hours

Third Year (16 + 18 credit hours)

Analysis I <u>ECE 3337</u>	Quant Physiology/Lab <u>BIOE 3340/ 3140</u>	Engr. Statistics <u>INDE 2333</u>	Biochemistry I <u>BCHS 3304</u>	Tech. Comm. <u>ENGI 2304</u>
Bioinstrumentation <u>BIOE 4315/4115</u>	Electronics <u>ECE 3455</u>	Biothermodynamics <u>BIOE 3341</u>	Neuroscience <u>BIOL 4315</u>	Political Sci. <u>POLS 1336</u>

Fourth Year (16 + 15 credit hours)

Tech. Elective <u>BIOE XXXX</u>	Visual/Perf. Arts 3 hours	Digital Signal Processing <u>BIOE 4397</u>	Analog Electronics <u>ECE 3456</u>	History <u>HIST 1378</u>
Political Science <u>POLS 1337</u>	Tech. Elective <u>BIOE XXXX</u>	Capstone Design II <u>BIOE 4336</u>	Social Science 3 hours	Humanities 3 hours

Total Credit Hours:

- 128 hours for the **Biomedical Analysis Option**
- 129 hours for the **Biomolecular Option**
- 130 hours for the **Neural Engineering**

Note: The curriculum is subject to change, students should contact their BME undergraduate advisor for the latest updates.