

COLLEGE OF ENGINEERING

Bachelor of Science, Biomedical Engineering

Four-Year Academic Map 2021-2022

| YEAR 1 | Semester 1 Fall | | | Semester 2 Spring | | | Total | |
|----------------|-----------------|------------------------------------|----|-------------------|-------------------------------------|---|-------|----|
| | ENGI 1100 | Introduction to Engineering | 1 | ENGI 1331 | Computing for Engineers | 3 | | |
| | BIOL 1306 | Biology for Science Majors I* | 3 | BIOL 1307 | Biology for Science Majors II | 3 | | |
| | BIOL 1106 | Biology for Science Majors I (lab) | 1 | BIOL 1107 | Biology for Science Majors II (lab) | 1 | | |
| | ENGL 1301 | First Year Writing I* | 3 | PHYS 2325 | University Physics I | 3 | | |
| | CHEM 1311 | Fundamentals of Chemistry* | 3 | CHEM 1312 | Fundamentals of Chemistry 2 | 3 | | |
| | CHEM 1111 | Fundamentals of Chemistry Lab | 1 | CHEM 1112 | Fundamentals of Chemistry Lab | 1 | | |
| | MATH 2413 | Calculus I* | 4 | MATH 2414 | Calculus II* | 4 | | |
| Semester Hours | | | 16 | Semester Hours | | | 18 | 34 |

| YEAR 2 | Semester 1 Fall | | | Semester 2 Spring | | | Total | |
|--------|-----------------|---------------------------------|---|-------------------|---------------------------------|---|-------|----|
| | BIOE 2100 | Intro to Biomedical Engineering | 1 | ECE 2201 | Circuit Analysis I | 2 | | |
| | CHEM 2323 | Organic Chemistry I | 3 | BIOE 2331 | Biomedical Processes | 3 | | |
| | CHEM 2123 | Organic Chemistry Lab I | 1 | BCHS 3304 | General Biochemistry I | 3 | | |
| | Math 2415 | Calculus III | 4 | MATH 3321 | Engineering Mathematics | 3 | | |
| | PHYS 2326 | University Physics II | 3 | CORE | Social and Behavioral Sciences* | 3 | | |
| | ENGL 1302 | First year Writing II* | 3 | CORE | Creative Arts* | 3 | | |
| | Semester Hours | | | 15 | Semester Hours | | | 17 |

| YEAR 3 | Semester 1 Fall | | | Semester 2 Spring | | | Total | |
|--------|-----------------|------------------------------------|---|-------------------|-------------------------------|---|-------|----|
| | GOVT 2306 | U.S. & TX Constitution & Politics* | 3 | BIOE 3341 | Biothermodynamics | 3 | | |
| | MECE 3400 | Intro to Mechanics | 4 | BIOE 4302 | Numerical Analysis for BIOE | 3 | | |
| | INDE 2333 | Engineering Statistics I | 3 | BIOE Elect | BIOE Technical Elective | 3 | | |
| | ENGI 2304 | Technical Communications* | 3 | BIOE 3340 | Quantitative Physiology | 3 | | |
| | HIST 1377 | The United States to 1877* | 3 | BIOE 3140 | Quantitative Physiology Lab | 1 | | |
| | | | | HIST 1378 | The United States Since 1877* | 3 | | |
| | Semester Hours | | | 16 | Semester Hours | | | 16 |

| YEAR 4 | Semester 1 Fall | | | Semester 2 Spring | | | Total | |
|--------|-----------------|---------------------------------|---|-------------------|---------------------------------------|---|-------|----|
| | BIOE 4335 | Capstone Design I | 3 | BIOE 4336 | Capstone Design II | 3 | | |
| | BIOE 4315 | Intro to Bioinstrumentation | 3 | BIOE 4350 | Genomic and Proteomic Engineering | 3 | | |
| | BIOE 4115 | Intro to Bioinstrumentation Lab | 1 | BIOE 4150 | Genomic and Proteomic Engineering Lab | 1 | | |
| | BIOE Elect | BIOE Technical Elective | 3 | BIOE Elect | BIOE Technical Elective | 3 | | |
| | BIOE Elect | BIOE Technical Elective | 3 | BIOE Elect | BIOE Technical Elective | 3 | | |
| | GOVT 2305 | U.S. Government* | 3 | CORE | Language, Philosophy & Culture* | 3 | | |
| | Semester Hours | | | 16 | Semester Hours | | | 16 |
| | | | | | | | 130 | |

*State of Texas Core Curriculum

Students should meet with their academic advisor to formulate their own plan.