

2024-2025 Bachelor of Science in Biomedical Engineering (Imaging Track)

University of Texas at Arlington – Four Year Course Sequence

First Year

Fall Semester – 17 Total Hours

| Course | Hours |
|--|-------|
| BE 1105 – Medical Applications of Engineering | 1 |
| ENGR 1101 – Entrance to ENGR for Transfers OR UNIV 1131 – Student Success | 1 |
| MATH 1426 – Calculus I | 4 |
| CHEM 1441 – General Chemistry I | 4 |
| BIOL 1441 – Biology for Science Majors I | 4 |
| BE 1325 – Intro to Bioengineering | 3 |

Spring Semester – 18 Total Hours

| Course | Hours |
|---|-------|
| PHYS 1443 – Technical Physics I | 4 |
| MATH 2425 – Calculus II | 4 |
| CHEM 1442 – General Chemistry II | 4 |
| BE 2315 – Intro to Computational Tools for BE | 3 |
| ENGL 1301 – Rhetoric & Composition | 3 |

Second Year

Fall Semester – 17 Total Hours

| Course | Hours |
|---|-------|
| PHYS 1444 – Technical Physics II | 4 |
| MATH 2326 – Calculus III | 3 |
| BE 3415 – Fundamentals of Biomolecular Engineering | 4 |
| MATH 3316 or IE 3301 – Statistical Inference or Engineering Probability | 3 |
| COMS 2302 – Professional & Technical Communication for Science and ENGR | 3 |

Spring Semester – 16 Total Hours

| Course | Hours |
|---|-------|
| EE 2440 or CSE 2440 – Circuit Analysis w/Lab | 4 |
| MATH 3319 – Differential Equations & Lin Algebra | 3 |
| BE 3320 – Measurement Lab | 3 |
| HIST 1301 – US History to 1865 (or HIST 1331) | 3 |
| BE 2310 – Engineering Appr. To Solving Clinical Challenges (Optional, counts as BE Tech Elective) | 3 |

Third Year

Fall Semester – 16 Total Hours

| Course | Hours |
|--|-------|
| BE 4382 – Lab Principles | 3 |
| BE 3380 – Human Physiology in BE | 3 |
| BE 3346 – Medical Imaging | 3 |
| BE 3317 – Linear Systems in Bioengineering | 3 |
| BE 3101 or 3191 – Seminar in BE or Directed Research in BE | 1 |
| POLS 2311 – US Government | 3 |

Spring Semester – 13 Total Hours

| Course | Hours |
|--|-------|
| BE 3344 - Bioinstrumentation | 3 |
| BE 3301 – Cell Physiology | 3 |
| BE Technical Elective | 3 |
| BE 3180 – Intro to Med Dev Regulations, Requirements & Quality Standards | 1 |
| POLS 2312 – State & Local Government | 3 |

Fourth Year

Fall Semester – 15 Total Hours

| Course | Hours |
|--|-------|
| BE 3352 – Digital Processing of Biological Signals | 3 |
| BE 4350 – Senior Design I | 3 |
| BE Technical Elective | 3 |
| PHIL 1304 – Contemporary Moral Problems | 3 |
| HIST 1302 – US History II (or HIST 1332) | 3 |

Spring Semester – 15 Total Hours

| Course | Hours |
|------------------------------------|-------|
| BE 4324 – Biomedical Optics Lab | 3 |
| BE 4355 – Senior Design II | 3 |
| BE Technical Elective | 3 |
| Creative Arts Elective | 3 |
| Social/Behavioral Science Elective | 3 |

Notes

View list of Core Curriculum requirements here: <https://catalog.uta.edu/academicregulations/degreerequirements/generalcorerequirements/>