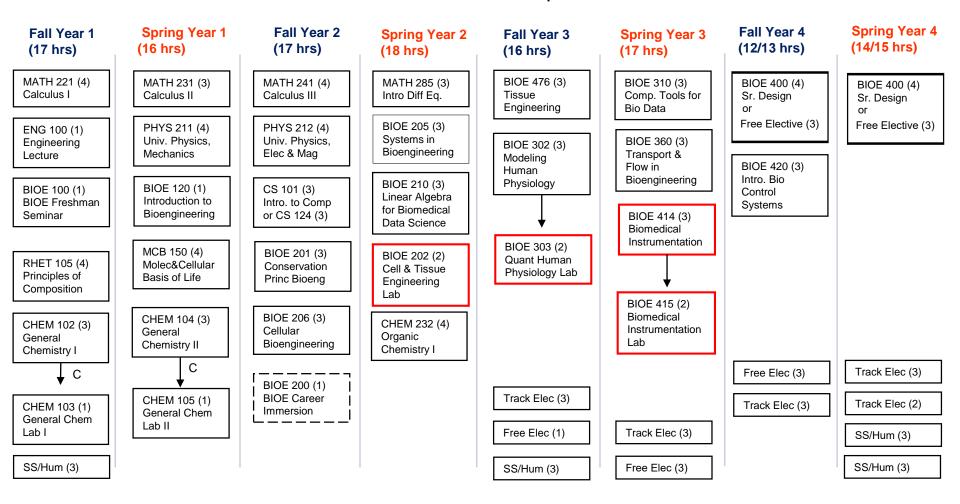
Imaging & Sensing Track Curriculum Map



^{**} Note – not taking courses as advised may result in a delayed graduation date. Students are responsible for any impact resulting from not following departmental advising.

^{**} If outlined in RED then the BIOE course is offered both Fall & Spring Semesters

^{**}Courses with dashed line borders are not currently required as part of the Core BIOE Curriculum

Imaging/Sensing Track Electives

- BIOE 424 Preclinical Molecular Imaging (3 hr)
- BIOE 450 Quantitative Pharmacology (3 hr)
- BIOE 483 Biomedical Computed Imaging Systems (3 hr)
- BIOE 484 Stat Analysis of Biomedical Images (3 hr)
- BIOE 485 Comp Math for Machine Learning/Imaging (4 hr)
- BIOE 486 Applied Deep Learning for Biomedical Imaging (3 hr)
- BIOE 498 NIE/ST1 Surgical Technologies (3 hr)
- BIOE 498 AL Immunoengineering (3 hr)
- BIOE 498 TL Intro to Systems Bio (3 hr)
- BIOE 498 LEC/TC1 Tech for Cancer Diag & Therapy (3 hr)
- BIOE 498 RI Regulatory Safety Issue in Bioengineering (3 hr)
- ECE 210 Analog Signal Processing (4 hr)
- ECE 329 Fields and Waves I (3 hr)
- ECE 310 Digital Signal Processing (3 hr)
- ECE 311 Digital Signal Processing Lab (1 hr)
- ECE 365 Data Science & Instrumentation (3 hr)
- ECE 380 Biomedical Imaging (3 hr)
- ECE 401 Signal & Image Analysis (4 hr)

- ECE 416 BioSensors (3 hr)
- ECE 417 Multimedia Signal Processing (4 hr)
- ECE 418 Image & Video Processing (4 hr)
- ECE 437 Sensors & Instrumentation (3 hr)
- ECE 460 Optical Imaging (4 hr)
- ECE 467 BioPhotonics (3 hr)
- ECE 472 Biomedical Ultrasound Imaging (3 hr)
- ECE 473 Fundamental of Engineering Acoustics (3 hr)
- ECE 480 Magnetic Resonance Imaging (3 hr)
- SE 423 Mechatronics (3 hr)
- ME 487 MEMS-NEMS Theory & Fabrication (4 hr)
- TMGT 461 TMD/TME Tech, Eng, & Mngmt Project (4 hr)
- ECE/NE 410 Neural Circuits & Systems (3 hr)
- ECE 421/NE 420 Neural Interface Engineering (3 hr)

*Note, ECE 210 & ECE 329 are no longer required track electives. However, this pathway is necessary to meet prereqs for the **bolded** ECE upper level courses so please check what course you want to take when deciding.

General Education Requirements ☐ 6 hours in Humanities ☐ 6 hours in Social/Behavioral Sciences ☐ 1 Advanced Composition Course ☐ 1 Western Comparative Cultures Course ☐ 1 Non-Western Comparative Cultures Course ☐ 1 US Minority Cultures Course ☐ Language Other Than English

PreMed Requirements
Meet with The Career Center for Premed advising
Common Courses (additional requirements may apply depending on school): MCB 450/354 (BioChem) CHEM 233 (Orgo 1 lab) Social/Behavioral Science Sequence (3 courses)
☐ Social/Behavioral Science Sequence (3