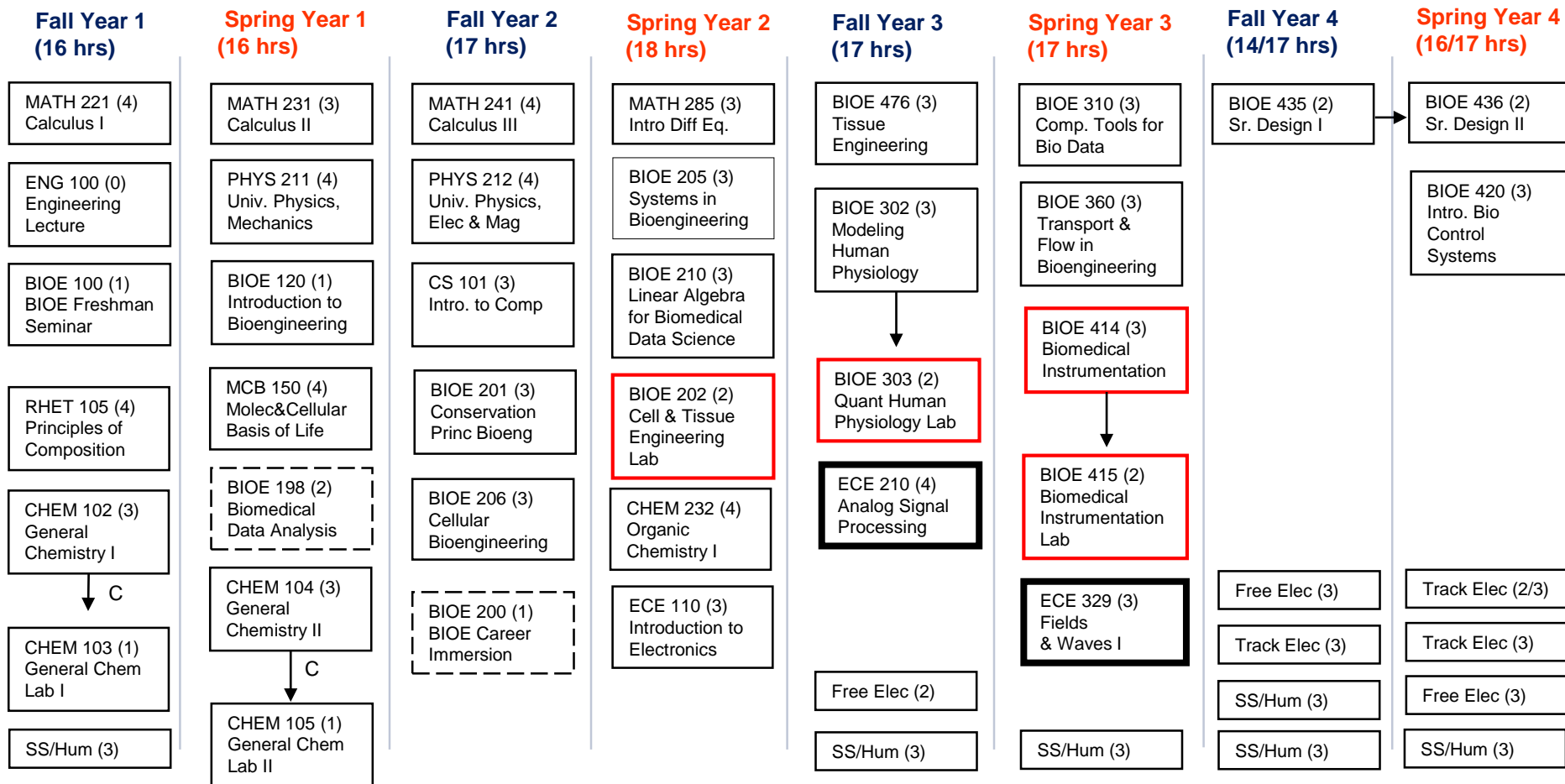


Imaging & Sensing Track Curriculum Map



** 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

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • 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 – Surgical Technologies (3 hr) • BIOE 498 WD – Preclinical Molecular Imaging (3 hr) • BIOE 498 AL – Immunoengineering (3 hr) • BIOE 498 TL – Intro to Systems Bio (3 hr) • BIOE 498 PJ – Exp. Design in Auto (3 hr) • BIOE 498 LEC – Technologies for Cancer Diagnosis & Therapy (3 hr) • BIOE 498 RI – Regulatory Safety Issues In Bioengineering (3 hr) • BIOE 498 QP – Quantitative Pharmacology (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 hrs) | <ul style="list-style-type: none"> • 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 – Fundamentals 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) • NPRE 498 PRA – Advanced Risk Analysis (3 hr) • TMGT 461 – Sections TMD/TME Tech, Eng, and Mngmt Final Project (4 hr) • NE 420/ECE 421 – Neural Interface Engineering (3 hr) |
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General Education Requirements

- ☐ 6 hours in Humanities
- ☐ 6 hours in Social/Behavioral Sciences
- ☐ 6 hours in Liberal Education
- ☐ 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)