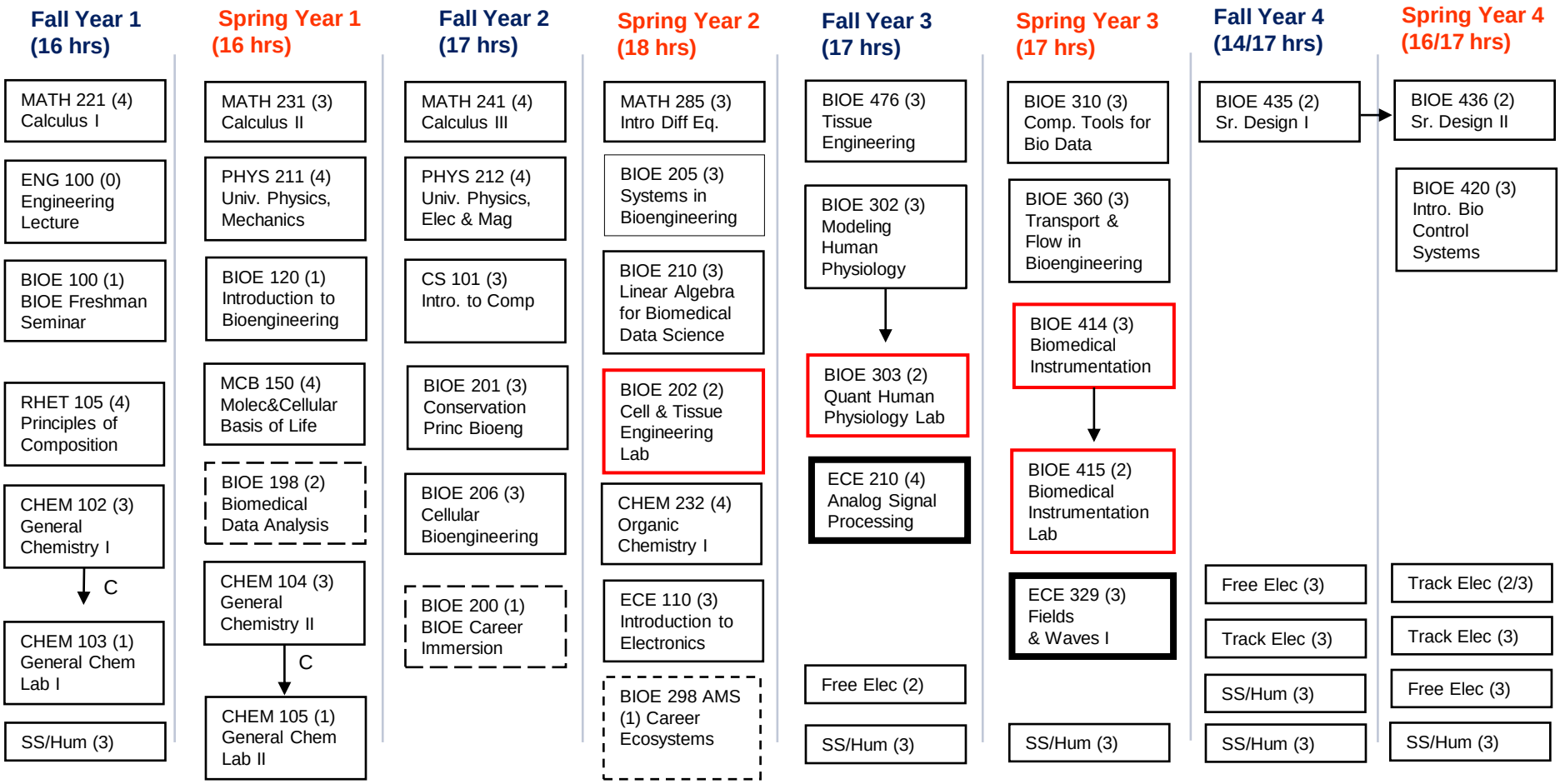
Imaging & Sensing Track
Curriculum Map



** 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 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)**
- **ECE 310 – Digital Signal Processing (3 hr)**
- **ECE 311 – Digital Signal Processing Lab (1 hr)**
- **ECE 365 – Data Science & Instrumentaion (3 hr)**
- **ECE 380 – Biomedical Imaging (3 hr)**
- **ECE 401 – Signal & Image Analysis (4 hrs)**
- **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)**

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)