Highly recommended for all emphasis areas: **Engr2100 Circuit Theory** (to prepare for BE4380)

**Bioenvironmental** Emphasis

*BE 4150*  
Soil and Water Conservation Engineering

*BE 4250*  
Irrigation and Drainage Engineering

*BE 4350*  
Watershed Modeling Using GIS

*ChE 4285*  
Pollution Prevention (online)

*ChE 4312*  
Air Pollution Control

*CvE 3050*  
Introduction to Geographic Information Systems GIS

*CvE 3200*  
Fundamentals of Environmental Engineering (4)

*CvE 3400*  
Fundamentals of Geotechnical Engineering (4)

*CvE 3702*  
Hydrology

*CvE 4230*  
Introduction to Water Quality

*CvE 4240*  
Water Quality Analysis

*CvE 4250*  
Environmental Regulatory Compliance

*Geog 4940*  
Advanced Geographic Information Systems (GIS2)

*IMSE 4001*  
Life Cycle Analysis

**Bioprocessing** Emphasis

*BE 3075*  
Introduction to Materials Engineering (Summer online)

*BE 3170*  
Biomaterials

*BE 4480*  
Physics and Chemistry of Materials

*BE/ChE 4315*  
Introduction to Bioprocess Engineering

*BE/ChE 4316*  
Biomass Refinery Operations

*ChE 3235*  
Principles of Chemical Engineering II

*ChE 4319*  
Introduction Polymer Materials

*ChE 3262*  
Chemical Engineering Thermodynamics II

*ChE 4363*  
Chemical Reaction Engineering and Technology

*IMSE 4001*  
Life Cycle Analysis

**Biomedical** Emphasis

*BE 3075*  
Introduction to Materials Engineering (Summer online)

*BE 3170*  
Biomaterials

*BE 4070*  
Bioelectricity

*BE 4001*  
Vascular Biomechanics

*BE 4170*  
Biomaterials Interfaces for Implantable Devices

*BE 4370*  
Orthopaedic Biomechanics

*BE 4420*  
Introduction to Biomedical Imaging (Summer online)

*BE 4470*  
Biomolecular Engineering & Nanobiotechnology

*BE 4480*  
Physics and Chemistry of Materials

*BE 4570*  
Fluorescent Imaging

*BE 4575*  
Computational Neuroscience (4)

*BE 4770*  
Biomedical Optics