Elective Courses

**Paper Science and Engineering**
- PSE 550 Fiber Processing (3)
- PSE 552 Fiber Materials Recycling and Processing (3)
- PSE 561 Engineering Thermodynamics (3)
- PSE 571 Fluid Mechanics (3)
- PSE 596 Special Topics (1 - 3)
- PSE 637 Equipment Troubleshooting and Maintenance (3)
- PSE 638 Biorenewable Fibrous and Nonfibrous Products (3)
- PSE 650 Pulping and Bleaching Processes (3)
- PSE 656 Management in the Paper Industry (3)
- PSE 665 Fiber and Paper Properties (3)
- PSE 666 Paper Pigment and Barrier Coating (3)
- PSE 667 Colloidal and Interface Science Applications in Papermaking (3)
- PSE 668 Papermaking Processes (6)
- PSE 669 Functional and Nano Additives (3)
- PSE 677 Process Control (3)

**Bioprocess Engineering**
- BPE 510 Introduction to Polymer Coatings (3)
- BPE 511 Radiation Curing Equipment, Instrumentation and Safety (3)
- BPE 535 Transport Phenomena (3)
- BPE 536 Radiation Curing of Polymer Technologies (3)
- BPE 596 Special Topics (1 - 3)
- BPE 620 Bioseparations (3)
- BPE 621 Bioreaction Engineering (3)
- BPE 635 Unit Process Operations (3)
- BPE 638 Introduction to Biorefinery Processes (3)
- BPE 640 Bioprocess Kinetics Experiments and Data Analysis (3)
- BPE 641 Biomass Energy (3)
- BPE 681 Bioprocess Plant Design (3)
Other Engineering
- GNE 661 Air Pollution Engineering (3)
- ERE 530 Numerical and Computing Methods (3)
- ERE 605 Sustainable Engineering (3)
- ERE 640 Water Pollution Engineering (3)
- CEN 5XX
- CEN 6XX
- CEN 7XX

Chemistry
- FCH 510 Environmental Chemistry I (3)
- FCH 524 Topics in Natural Products Chemistry (3)
- FCH 530 Biochemistry I (3)
- FCH 531 Biochemistry Laboratory (3)
- FCH 532 Biochemistry II (3)
- FCH 550 Polymer Science: Synthesis and Mechanisms (3)
- FCH 551 Polymer Techniques (3)
- FCH 552 Polymer Science: Properties and Technology (3)
- FCH 560 Chromatography and Related Separation Sciences (3)
- FCH 571 Wood Chemistry I: General Wood Chemistry (2)
- FCH 620 Chemical Kinetics (3)

Environmental Science
- ESC 525 Energy Systems (3)
- ESC 622 Energy Markets and Regulation (3)

Other elective courses may be taken with the approval of the major professor.