



State University of New York
College of Environmental Science and Forestry

Department of Paper and Bioprocess Engineering

Master of Professional Studies Paper and Bioprocess Engineering Program

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.