

## Approved Technical Electives and Advanced Chemistry Courses

Those courses marked with \* can be used as advanced chemistry elective.

### Biochemistry, Microbiology and Molecular Biology

BMB 300<sup>1</sup> General Microbiology  
BMB 322\*<sup>1</sup> Biochemistry

### Chemical and Biological Engineering

CHE 410\* Advanced Materials  
CHE 420\* Colloid Technology  
CHE 430\* Introduction to Polymer Science & Technology  
CHE 454 Intro. to Digital Computer Process Control  
CHB 460\*<sup>1</sup> Biochemical Engineering  
CHE 480 Pollution Prevention in Industrial Ecology  
CHE 497 Independent Study  
BLE 497 Special Problems in Biological Engineering  
CHE 498 Special Topics in Chemical Engineering  
CHE 499 Undergraduate Thesis  
CHE 510 Introduction to Transport Phenomena  
CHE 540 Advanced Chemical Eng. Thermodynamics  
CHB 550 Comp. Simulation/Analysis of Industrial Proc.  
CHE 561 Advanced Chemical Engineering Kinetics  
CHE 575 Paper Surface Science  
CHE 580 Chemical Engineering Analysis  
CHE 585 Mathematical Methods in Chemical Eng.  
CHE 598 Special Topics in Chemical Engineering  
BLE 597 Advanced Topics in Biological Engineering

### Chemistry

CHY 431\* Structure and Mechanism in Biological Chem.  
CHY 443\* Instrumental Analysis  
CHY 461\* Advanced Inorganic Chemistry I  
CHY 475\* Physical Chemistry III  
CHY 483\* Introductory Wood Chemistry

### Civil Engineering

CIE 437\* Environmental Chemistry  
CIE 533 Environmental Aquatic Chemistry

### Electrical and Computer Engineering

ECE 464 Microelectronics Science and Engineering

### Food Science and Nutrition

FSN 330 Introduction to Food Science

### Mathematics

MAT 451 Differential Equations and Dynamical Systems  
MAT 452 Complex Analysis  
MAT 453 Partial Differential Equations I  
MAT 454 Partial Differential Equations II  
MAT 456 Network Optimization  
MAT 487 Numerical Analysis

### Pulp and Paper Technology

PPA 264 Introduction to Pulp and Paper Industry  
PPA 465 Pulp Technology  
PPA 466 Paper Technology  
PPA 473 Pulp Manufacture and Testing  
PPA 474 Paper Manufacture and Testing

<sup>1</sup> Not qualified as technical electives in BLE program since these are required courses.