

ENGINEERING TOPICS COURSE LIST FOR PSE MAJORS

A minimum of 6 credits must be selected from this list to meet the Technical Electives requirement in the PSE major. Other courses may be approved by petition. Please see advising in the Office of Student and Academic Services AND 116/130.

Computer Programming

- CSE 142 Computer Programming (5)*

Chemical Engineering

- CHEM E 326 Chemical Engineering Thermodynamics (4)*
- CHEM E 341 Energy & Environment I (3)
- CHEM E 342 Energy & Environment II (3)
- CHEM E 345 Introduction to Fuel Cells (3)
- CHEM E 355 Biological Framework for Engineers (3)
- CHEM E 455 Surface & Colloid Science (1, max. 3)
- CHEM E 462 Application of Chem Eng.Principles to Environmental Problems (3)
- CHEM E 480 Process Dynamics & Control (4)
- CHEM E 481 Process Optimizations (3)

Materials Science/Engineering

- MSE 170 Fundamentals of Materials Science (4)
- MSE 310 Intro to Materials Science & Engineering (2)
- MSE 362 Mechanical Behavior of Materials (3)
- MSE 463 Corrosion/Wear of Materials (4)
- MSE 471 Introduction to Polymer Sci & Eng. (3)
- MSE 475 Introduction to Composite Materials (4)

Civil and Environmental Engineering

- CEE 220 Introduction to Mechanics of Materials (4)
- CEE 350 Environ. Engineering Water & Air Quality (4)
- CEE 461 Biological Problems in Water Pollution (3/5)
- CEE 480 Air Quality Modeling (3)
- CEE 482 Water & Waste Water Treatment (3)
- CEE 485 Aquatic Chemistry (3)
- CEE 486 Water Quality Analysis (3)
- CEE 487 Solid Waste Disposal (3)
- CEE 488 Hazardous Waste Engineers (3)
- CEE 490 Air Pollution Control (4)
- CEE 493 Air Pollution Source Testing & Equipment (3)
- CEE 494 Air Pollution Control Equipment (3)

Various

- A A 210 Engineering Statics (4)
- E E 215 Fundamentals of Electrical Engineering (4)
- IND E 337 Intro to Manufacturing Systems (4)
- M E 230 Kinematics & Dynamics (4)
- PSE 490 Special Topics (1, max. 15)
- PSE 494-496 Senior Proposal/Project/Thesis (5-10)
- PSE 499 Undergraduate Research (1, max. 15)

* *Recommended for prospective CHEM E applicants*