ENVIRONMENTAL ENGINEERING TECHNICAL ELECTIVES

Six courses (eighteen credit hours) are provided in the Environmental Engineering curriculum that allow the student flexibility at the intermediate and advanced levels of the program. An area of concentration is first determined, defined by a set of three specific (core) technical electives as given below. The remaining three technical electives can then be chosen to further pursue this direction of study, or to provide a more diversified environmental engineering education. All technical electives must be upper level courses in engineering, the sciences, computer science, or mathematics. Students should select their area of concentration and desired technical electives with the assistance of their academic advisor. It is advisable to select these courses in the spring of the sophomore year to avoid scheduling conflicts and insure that any prerequisite courses are taken.

Concentration in environmental facilities design and construction
Core:
CIEG 301  Structural Analysis
CIEG 302  Structural Design
CIEG 320  Soil Mechanics

Additional related technical electives:
CIEG 467  Building Design
CIEG 467  Forensic Engineering
CIEG 321  Geotechnical Engineering
CIEG 467  Construction Management
MASC 302  Materials Science

Concentration in pollution transport and control processes
Core:
CHEG 332  Chemical Engineering Kinetics
CHEG 342  Heat and Mass Transfer
CHEM 443  Physical Chemistry I

Additional related technical electives:
CIEG 433  Hazardous Waste Management
CIEG 435  Industrial Waste Management
MEEG 424  Air Pollution Processes
CHEM 444  Physical Chemistry II

Additional recommended technical electives:
AGEG 628  Land Application of Wastes
BISC 371  Introduction to Microbiology*
CHEM 331  Organic Chemistry
CHEM 444  Physical Chemistry
CIEG 482  Systems Design and Operation
GEOL 421  Environmental and Applied Geology*
GEOL 446  General Geochemistry*
PLSC 608  Soil Chemistry*

*Note prerequisites

Note: This list is not exhaustive. Consult your advisor if you wish to identity additional courses that qualify as technical electives.