

# APPROVED TECHNICAL ELECTIVES

## ENVIRONMENTAL ENGINEERING

Technical electives may be chosen from all non-required 300-500 level CE/ENVE courses with the following exceptions: senior project, co-op, graduate seminar, and thesis; and ENVE 324, 330, 534, 570/571. Technical electives cannot be used to satisfy other major, support, or general education requirements--no double-counting is allowed.

No more than 4 units of the following CE/ENVE courses (combined total) may be used to satisfy the technical elective requirements: CE/ENVE 400, CE/ENVE 500, ENVE 405, ENVE 407, ENVE 471.

**No more than four units of coursework other than CE/ENVE may be used to satisfy the ENVE Engineering technical elective degree requirement.** However, it is not required to have technical electives outside the major (all courses could be within CE/ENVE). The following courses have been approved for technical elective credit. Other courses may be approved on a case-by-case basis, but a course substitution form must be completed and signed PRIOR to enrolling in the course.

### Air Quality and Climate

GEOG 414 (4)	Global & Regional Climatology
GEOG 415 (5)	Applied Meteorology and Climatology
PHYS 313 (3)	Atmospheric Physics
ME 359 (4)	Fundamentals of HVAC Systems

### Appropriate Technology

UNIV 491 (4)	Appropriate Technology for the World's People: Development
UNIV 492 (4)	Appropriate Technology for the World's People: Design

### Biology/Biochemistry/Microbiology

ENGR 581 (4)	Biochemical Engineering I
BIO 307 (4)	World Aquaculture
BIO 328 (5)	Marine Ecology
BIO 401 (4)	Conservation Biology
MCRO 342 (4)	Sanitary Microbiology
MCRO 436 (4)	Environmental Microbiology
SS 422 (4)	Soil Microbiology and Biochemistry

### Computer Applications and Computations

GEOG/NR317(4)	Geographic Information Technology
STAT 313 (4)	Applied Experimental Design and Regression
STAT 323 (4)	Design & Analysis of Experiments

### Chemistry

CHEM 313 (5)	Survey of Biochem/Biotech
CHEM 317 (5)	Organic Chemistry II
CHEM 341 (3)	Env. Chemistry: Water Pollution
CHEM 350 (1)	Chemical Safety
SS 423 (5)	Soil and Water Chemistry

### Energy

BRAE 448 (3)	Bioconversion
ECON 432 (4)	Econ of Energy and Resources
ME 343 (3)	Heat Transfer
ME 359 (4)	Fundamentals of HVAC Systems
ME 415 (4)	Energy Conversions
PHYS 310 (3)	Physics of Energy

### Hydrology and Soils

BRAE 532 (3)	Water Wells and Pumps
ECON 435 (4)	Economics of Land and Water
SS 432 (5)	Soil Physics
SS 442 (4)	Soil Vadose/ Groundwater

### Law and Policy

CRP 342 (4)	Environmental Planning Methods
CRP/NR 404 (3)	Environmental Law
CRP/NR 408 (3)	Water Resource Law and Policy
NR 416 (4)	Environmental Impact Analysis
CM 334 (2)	Construction Law
IME 314 (3)	Engineering Economics
ECON 431 (4)	Environmental Economics