BS ENVIRONMENTAL ENGINEERING

- 60 units upper division
- GWR
- 2.0 GPA
- USCP

* = Required in Support; also satisfies GE

Note: No major or support courses may be taken as credit/no credit.

MAJOR COURSES

CE 113 Computer-Aided Drafting in Civ Engr ........... 2
CT 201 or CE 204, 207 Mechanics of Materials ........ 6
CE 336 Water Resources Engineering .................. 4
CE 337 Hydraulics Laboratory ........................... 1
CE 381 Geotechnical Engineering ........................ 4
CE 434 Groundwater Hydraulics and Hydrology ....... 4
ENVE 111 Intro to Env. Engineering Profession ....... 1
ENVE 264 Environmental Fluid Mechanics ............. 4
ENVE 304 Thermodynamics of Processes ............... 3
ENVE 309 Noise and Vibration Control ................. 3
ENVE 325 Environmental Air Quality .................... 4
ENVE 331 Intro to Environmental Engineering ....... 4
ENVE 411 Air Pollution Control .......................... 3
ENVE 421 Mass Transfer Operations ...................... 4
ENVE 426 Air Quality Measurements .................... 3
ENVE 434 Water Chemistry and Water Quality
Measurements ............................................. 4
ENVE 436 Intro Hazardous Waste Management ....... 4
ENVE 438 Water & Wastewater Treatment Design .... 3
ENVE 439 Solid Waste Management ........................ 3
ENVE 450 Industrial Pollution Prevention ............... 4
ENVE 455 Environmental Health and Safety ............ 4
ENVE 466, 467 Senior Project Design Lab ................ 2,2

1,2 Technical electives ................................. 11

87

SUPPORT COURSES

3 CHEM 127 General Chemistry I (B3/B4)* ............. 4
CHEM 128 General Chemistry II .......................... 4
CHEM 129 General Chemistry III ........................ 4
CHEM 312 Survey of Organic Chemistry ............... 5
(trans equiv CHEM 212)
CSC 231 Programming for Engineering Students .... 2
ENGL 149 Technical Writing for Engineers (A3)* .... 4
MATH 141, 142 Calculus I, II (B1)* ..................... 4,4
MATH 143 Calculus III (Add'l Area B)* ................. 4
MATH 241 Calculus IV ...................................... 4
MATH 244 Linear Analysis I .............................. 4
MCRO 221 Microbiology (B2)* or
MCRO 224 General Microbiology I .................... 4
ME 211 Engineering Statics ............................... 3
ME 302 Thermodynamics I ............................... 3
PHYS 141 General Physics IA (Add'l Area B)* ...... 4
PHYS 132, 133 General Physics II, III .................. 4,4
STAT 312 Statistical Methods for Engineers (B6)* .... 4

69

GENERAL EDUCATION (GE)

72 units required, 32 of which are specified in Support.
→ See page 39 for complete GE course listing.
→ Minimum of 8 units required at the 300 level.

Area A Communication (8 units)

A1 Expository Writing ...................................... 4
A2 Oral Communication ................................. 4
A3 Reasoning, Argumentation, and Writing * 4
units in Support ........................................... 0

Area B Science and Mathematics (no add'l units required)

B1 Mathematics/Statistics * 8 in Support .......... 0
B2 Life Science * 4 units in Support ................. 0
B3 Physical Science * 4 in Support .................. 0
B4 One lab taken with either a B2 or B3 course
B5 (not required for Engineering students)
B6 Upper-division Area B * 4 in Support .......... 0
Additional Area B units* 8 in Support .......... 0

Area C Arts and Humanities (16 units)

C1 Literature .................................................. 4
C2 Philosophy ................................................. 4
C3 Fine/Performing Arts ................................. 4
C4 Upper-division elective (PHIL 340 or NR 360
recommended) ............................................ 4

Area D/E Society and the Individual (16 units)

D1 D2 D3 D4 Self Development (CSU Area E) .... 4

40

FREE ELECTIVES ............................................. 0

196

Technical Electives

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, comprehensive exam, and thesis;
and ENVE 324, ENVE 330, ENVE 570, ENVE 571. Technical
Electives cannot be used to satisfy other major, support, or general
education requirements. No double counting is allowed.

Air Quality and Climate

ERSC/GEOG 415, 415; ME 359; PHYS 313

1 To be selected in accordance with the A.B.E.T. 24-unit and Culminating
Engineering Design requirement, in consultation with your academic
advisor.

2 No more than 4 units of CE 400/ENVE 400, CE 500/ENVE 500, ENVE 405,
ENVE 407, and ENVE 471 combined can be counted towards technical
electives. Note: CE 400, ENVE 400 and CE 500/ENVE 500 require an
individual course substitution form. (7/2/15)(10/15/15)

3 CHEM 124, 125 substitute for CHEM 127, 128.

4 An additional 3 units of technical electives may substitute. (1/6/14)

5 No more than 4 units of coursework other than CE/ENVE may be used
to satisfy the ENVE Engineering technical elective degree
requirement. (7/2/15)

6 If CE 207 is taken for 2 units then one additional unit of Technical
Electives is required. (1/5/16)
Appropriate Technology
PSC/UNIV 491, 492

Biology/Biochemistry/Microbiology
BIO 401; ENGR/ENVE 581, MCRO 342, 436, MSCI 307, 328; SS 422

Computer Applications and Computations
GEOG/NR 317; STAT 313, 323

Chemistry
CHEM 313, 341, 340, 350; SS 423

Energy
BRAE 448; ECON 432; ME 350, 359, 415; PHYS 310

Hydrology and Soils
BRAE 532; ECON 435; SS 432, 442

Law and Policy
CM 334; CRP 342, CRP/NR 404; CRP/NR 408; ECON 431; IME 314; NR 416

(7/2/15)