

Notes: This worksheet is for planning information only and does not supersede requirements as stated in the university catalog.

Classes required for the Environmental Engineering Minor are highlighted

^{*} Refer to the catalog for Humanities & Social Sciences courses needed to meet Goal 3 and 4 requirements.

^{**} Basic sciences are defined as biological, chemical, and physical sciences (geology, atmospheric science, physics) See list on back of sheet.

^{***}Choose from: CBE 455, CHE 326, CHEM 482, GEOE GEOE 421, 475/L, IENG 331 or MEM 405.

⁺ GEOE 221/221L or GEOL 201 may be taken, but not both. GEOL 416 cannot be used as a basic science elective.

ATM	301	cs electives. Blue shading = course fulfills requirements Introduction to Atmospheric Sciences	3	PHYS 111 or 113
ATM	403/503	Biogeochemistry	3	CHEM 112, BIOL 151, PHYS 211
ATM	405/505	Air Quality (spring of even years)	3	MATH 125, one semester college chemistry
ATM	406/506	Global Environmental Change	3	CHEM 112, PHYS 211, BIOL 311 or POI
BIOL	151	General Biology I	3	CHEWITIZ, FITTO 211, BIOL 311 01 FOI
BIOL	153	General Biology II	3	BIOL 151
BIOL	311	Principles of Ecology	3	BIOL 131
BIOL	331	Microbiology	3	BIOL 151, CHEM 112
				CHEM 112
BIOL	341	Microbial Processes in Eng. and Nat. Sciences	3	
BIOL	431	Industrial Microbiology	3	BIOL 231
BIOL	371	Genetics	3	BIOL 151
GEOE	221	Geology for Engineers	3	
GEOL	201	Physical Geology	3	
CHEM	316	Fundamentals of Organic Chemistry	3	CHEM 114
CHEM	326/326L	Organic Chemistry I	3	CHEM 114
CHEM	328/328L	Organic chemistry II	3	CHEM 326
CHEM	341	Physical Chemistry for Engineers I	2	CHEM 114 and MATH 321
CHEM	342	Physical Chemistry I	3	CHEM 114 and MATH 321
CHEM	343	Physical Chemistry for Engineers II	2	PHYS 213 and CHEM 341 or CHEM 342
CHEM	344	Physical Chemistry II	3	CHEM 342 and PHYS 213
CHEM	460/560	Biochemistry	3	CHEM 328
CHEM	482/582	Environmental Chemistry	3	CHEM 316 or 328
MATH	315	Linear Algebra	3	MATH 225 or permission of instructor
MATH	353	Linear Optimization	3	MATH 225
MATH	373	Introduction to Numerical Analysis	3	MATH 321 and CSC 150/150L
MATH	381	Introduction to Probability and Statistics	3	MATH 125, MATH 225
MATH	382	Probability Theory and Statistics II	3	MATH/IENG 381
MATH	447	Design of Experiments	3	MATH 382, MATH 442 or permission of instr
	213	Physics II	3	PHYS 211
PHYS				

The BSCE curriculum includes 15 credits of Department Approved Electives for the EnvE emphasis that students may use to broaden their education in civil and environmental engineering areas, gain knowledge and skills in a specialized area or create a knowledge base tailored to their individual career goals. Department Approved Electives include the following:

- At least 6 credits of CEE 400-level coursework not applied to another CEE graduation requirement.
- Up to 6 credit hours of CEE 498 (Undergraduate Research/Scholarship), CEE 491 (Independent Study) or CP 497 (Cooperative Education); not more than 3 credits may be CEE 491 or CP 497.
- Up to 6 credit hours of 300 or 400-level courses in engineering, science, math or computer science not applied to
 another CEE graduation requirement (9 credits for environmental engineering emphasis students). Accelerated
 masters students may take 500 and 600-level courses. Complete list of basic science and department approved
 electives available at http://www.sdsmt.edu/Academics/Departments/Civil-and-Environmental-Engineering/Roadmap-To-Success/.