

Environmental Engineering, B.S. with Ecological Engineering minor
Paradigm

for students starting Fall 2022

FALL	Freshman			SPRING	Freshman	
MATH 121	Calculus with Analytical Geom. I	3		MATH 122	Calculus with Analytical Geom. II	3
CORE 113	First Year Seminar	3		PHYS 121/L	General Physics I	4
CHEM 121/L	General Chemistry I	4		CHEM 122/L	General Chemistry II	4
ENGR 101	Intro. to Engineering I	1		GEOL 205	Physical Geology	3
WRIT 102	Research Writing	3		ENGR 102	Intro. to Engineering II	1
FTAE 105	Franciscan Goals for Today	3		HIST xxx	History 100/200 level	3
CORE 103	Community Enrichment	0		CORE 104	Community Enrichment	0
ENVE 192	Freshman Environmental Engineering Seminar	0		ENVE 193	Freshman Environmental Engineering Seminar	0
	Total	17			Total	18
FALL	Sophomore			SPRING	Sophomore	
MATH 221	Calculus III	3		MATH 306	Diff. Eqns. I	3
ENGR 201	Engineering Statics	3		<i>Collateral set 1</i>	<i>Collateral set 1</i>	3
ENGR 210/L	Programming for Engineers	2		LIT 104	LIT 104, 201,202,207, or 270	3
PHYS 122/L	General Physics II	4		PHIL 205	Philosophy 205	3
ENVE 321/L	Field Measurements (Meas I)	3		ECON 101	ECON 101 (EPPS 1)	3
ENVE 201	ENVE Statistics Lab	1		EPPS 2	PLSC102/103, PSYC101 or SOC 1xx/2xx	3
ENVE 292	Sophomore Environmental Engineering Seminar	0		ENVE 293	Sophomore Environmental Engineering Seminar	0
	Total	16			Total	18
FALL	Junior			SPRING	Junior	
ENGR 301/L	Fluid Mechanics	4		LANG	Language 102+	3
ENGR 321	Applied Engr Thermodynamics	3		FTAE/PHIL	Additional theology / philosophy class	3
ENVE 311	Aquatic and Atm. Chem	3		ENVE 312	Transport processes	3
BIOL 203	<i>Ecology (Eco Minor, Biol Set)</i>	4		ENVE 322/L	Lab Measurements (Meas II)	3
EXAM 301	Writing Comp Exam	0		FNAR	Fine Arts	3
CHEM 221/L	Organic Chemistry I	4		EPPS 3	PLSC102/103, PSYC101 or SOC 1xx/2xx	3
ENVE 392	Junior Environmental Engineering Seminar	0		ENVE 393	Junior Environmental Engineering Seminar	0
	Total	18			Total	18
FALL	Senior			SPRING	Senior	
ENVE 413	Hydraulics and Hydrology	3		ENVE 4xx	Water/Wastewater elective	3
ENVE 411	Wastewater Treatment	3		ENVE 4xx	Pollution control elective	3
<i>Collateral set 2, Eco Minor</i>	<i>Choose second BIOL class from set.</i>	3-4		CORE 407	Keystone Seminar	3
ENVE 497	Capstone Design Proposal	1		ENVE 498	Capstone Design	3
ENVE 415	Senior Lab	3		Diversity	Diversity requirement, see General Education	3
ENGR 492	Senior Environmental Engineering Seminar	1		ENVE 493	Senior Environmental Engineering Seminar	0
<u>ENVE 424</u>	<u>Ecological Engineering (Eco Minor)</u>	3		<u>ENVE 423</u>	<u>Appropriate Technology (Eco Minor)</u>	3
	Total	17-18			Total	18
				Total =	139-140	

Note: Sequence of courses may be altered with advisor's approval.

Technical Electives

Pollution Control. ENVE 414 (Hazardous and Solid Waste Handling), ENVE 416 (Air Quality Control), ENVE 417 (Contaminant Hydrogeology)

Water & Wastewater. ENVE 418 (Stormwater Treatment), ENVE 419 (Biological Processing), ENVE 420 (Acid Mine Drainage Prevention & Treatment), ENVE 425 (Drinking Water Treatment & Distribution)

BIOL set. Take at least three credits from BIOL 203 – Ecology (4), BIOL 302 – General Microbiology (4), BIOL 322 – Field Biology (3), ENVE 350 – Environmental Biotechnology (4)

Collateral set. Take at least six credits from the following: a second class from the BIOL set, CHEM 251 – Quantitative Analysis (3), ENGR 202 – Engineering Dynamics (3), ENGR 350 – Material Science (3), ENGR 315/L – Mechanics of Materials (3), ENVE 243 - Energy Storage (3)