

Environmental Engineering Paradigm

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

For students entering Fall 2019 and after

Fall				Spring			
Course No.	Name	Credits	Prerequisites	Course No.	Name	Credits	Prerequisites
Freshman							
MATH 121	Calculus I	3		MATH 122	Calculus II	3	MATH 121
CORE 113	First Year Seminar	3		PHYS 121	Physics I	4	
CHEM 121	Chemistry I	4		CHEM 122	Chemistry II	4	CHEM 121
ENGR 101	Intro. to Eng. I	1		GEOL 205	Phys. Geology	3	
WRIT102*	Research Writing	3		ENGR 102	Intro. to Eng. II	1	ENGR 101
RLST 105 *	Fran. Goals Today	3		HIST xxx	History 100/200	3	
CORE 103	CES	0		CORE 104	CES	0	
ENVE 192	Seminar	0		ENVE 193	Seminar	0	
	<i>total credits:</i>	<i>17</i>			<i>total credits:</i>	<i>18</i>	
Sophomore							
MATH 221	Calculus III	3	MATH 122	MATH 306	Diff Equations I	3	MATH 122
ENGR 201	Statics	3	PHYS 121	ENGR 202	Dynamics	3	ENGR 201
CHEM 221	Organic Chem. I	4	CHEM 122	LIT 104 **	LIT (see Gen Ed for options)	3	
PHYS 122	Physics II	4	PHYS 121	EPPS ***	EPPS	3	
ENVE 321	Env. Eng. Field Measurements	3		PHIL 205**	PHIL 205	3	
ENVE 201	Env. Eng. Statistics Lab	1		CS‡	Collateral Set	3-4	
ENVE 292	Seminar	0		ENVE 293	Seminar	0	
	<i>total credits:</i>	<i>18</i>			<i>total credits:</i>	<i>18</i>	
Junior							
ENGR 301	Fluid Mechanics	4	MATH 221, ENGR 202	ENVE 313	Modeling and Simulation of Env. Systems	3	MATH 306
ENGR 321 or PHYS 321	Thermodynamics	3	CHEM 122, PHYS 122, MATH 122	RLST/PHIL	Religion or Philosophy	3	
ENVE 311	Aquatic. and Atmospheric Chemistry	3	PHYS 321 (co-req), MATH 306	ENVE 312	Transport Processes	3	ENGR 301, MATH 306
CS‡	Collateral Set	3-4		ENVE 322	Env. Eng. Lab Measurements	3	ENVE 312, ENVE 321
LANG xxx	Language 102+	3		FNAR	Fine arts elective	3	
EXAM 301	Wr Comp Exam	0		ECON 101**	EPPS	3	
ENVE 392	Seminar	0		ENVE 393	Seminar	0	
	<i>total credits:</i>	<i>16-17</i>			<i>total credits:</i>	<i>18</i>	
Senior							
ENVE 413	Environmental Hydraulics and Hydrology	3	ENVE 312	ENVE 4xx	Water & Wastewater elective	3	ENVE 411, ENVE 413
ENVE 411	Wastewater Treatment	3	ENVE 312	ENVE 4xx	Pollution Control elective	3	ENVE 411, ENVE 413
ENVE 415	Senior Lab	3	ENVE 322	ENVE 499	Senior Project	3	ENVE 415
ENVE 498	Senior Project Proposal	1	ENVE 322	CORE 407	Keystone Sem.	3	
EPPS**	EPPS	3		DIV REQ	Diversity Req: see list	3	
ENVE 492	Senior Seminar	1		ENVE 493	Seminar	0	
	<i>total credits:</i>	<i>14</i>			<i>total credits:</i>	<i>15</i>	

Total Credits: 134-135 (41-42 Basic Math/Sci., 51 Engineering Topics, 42 Gen Ed)

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)

‡CS : Collateral Set: Must take two of: BIOL 203 (Ecology: 4), CHEM 251 (Quantitative Analysis: Spring, 3), BIOL 302 (Microbiology: Spring, 4), or ENVE 350 (Environmental Biotechnology: Spring, 4)

* Must be taken in freshman year ** Must be taken in freshman or sophomore year.

*** EPPS – Econ101, PLSC102/103, PSYC101 or SOC 1xx/2xx