

College of Engineering & Computer Science

Environmental Engineering

Fall 2017

Name _____

SUID _____

pr= prerequisite, co=corequisite

Minor/Second Major (if any): _____

MATHEMATICS (15)

MAT295 Calculus 1

MAT296 Calculus 2 (pr: MAT 295 min C-)

MAT397 Calculus 3 (pr: MAT 296 min C-)

MAT485 Diff. Equations & Matrix Algebra (pr: MAT 397)

SCIENCES (20)

CHE106 General Chemistry I

CHE107 General Chemistry I Lab (co: CHE 106)

CHE116 General Chemistry 2 (pr: CHE 106)

CHE117 General Chemistry Lab 2 (pr: CHE 107, co: CHE 116)

PHY211 General Physics 1 (co: PHY 221, MAT 295)

PHY221 General Physics Lab 1 (co: PHY 211)

GEO383 Geographic Information System

Select one of the following two courses:

EAR110 Dynamic Earth

EAR203 Earth System Science

WRITING SKILLS (6)

WRT105 Studio 1: Practices of Academic Writing

WRT205 Studio 2: Critical Research and Writing (pr: WRT 105)

SOCIAL SCIENCE /HUMANITIES (18)

(See curriculum notes)

SSH Elective _____

SSH Elective _____

SSH Elective _____

SSH Elective _____

SSH Elective _____

SSH Elective _____

ENGINEERING (16/17)

ECS101 Intro. to Engr. & Comp. Sci.

ECS221 Statics (pr: PHY 211, co: MAT 296)

ECS325 Mechanics of Solids (pr:ECS 221, co: MAT 397)

CIE561 Air Resources I

Select One of the Following 5 Courses:

ECS222 Dynamics (3) (pr: ECS 221, MAT 296)

CIE/ECS 326 Engineering Materials

ELE231 Elec. Engr. Fundamentals (3 or 4) (pr: MAT 295)

MAE251 Thermodynamics (4) (pr: PHY 211)

CHE346 Physical Chemistry (3) (pr: CHE 116, MAT 296, co: PHY 212)

ENVIRONMENTAL ENGINEERING (35)

CIE271 Env. Chemistry & Analysis

CIE274 Sustainability in Civil & Env Engr. Systems (pr: CHE106, MAT296)

CIE327/MAE341 Fluid Mechanics (pr: MAT 397, ECS 221)

CIE329 Prob, Stats and Risk for Civ & Env Engr (pr: MAT 485 or MAT 331)

CIE337 Intro to Geotechnical Engineering (pr: ECS 325)

CIE341 Intro Environmental Engineering (pr: CIE 274)

CIE352 Water Resources Engr. (pr: CIE 327 or MAE 341)

CIE442 Treatment Proc. In Env Engr. (pr: CIE 327 or MAE 341, CIE 341)

CIE472 Applied Env. Microbiology

CIE475 Capstone Design

ELECTIVES (18)

Prof. Elective _____

Prof. Elective _____

Prof. Elective _____

Tech Elective _____

Tech Elective _____

Free Elective _____

TOTAL CREDITS

CREDIT GRADE	FIRST-YEAR		SOPHOMORE		JUNIOR		SENIOR		VAR +/-
	F	S	F	S	F	S	F	S	
(4) _____	4								
(4) _____		4							
(4) _____			4						
(3) _____				3					
(3) _____	3								
(1) _____	1								
(3) _____		3							
(1) _____		1							
(3) _____		3							
(1) _____		1							
(4) _____						4			
(4) _____									
				4* or 4					
(3) _____	3								
(3) _____				3					
(3) _____									
(3) _____	3								
(3) _____		3							
(3) _____			3** or 3						
(3) _____		3							
(3) _____			3						
(3) _____					3				
(3) _____	3								
(3) _____			3						
(4) _____				4					
(3) _____							3		
() _____								3 or 4	
(3) _____			3						
(3) _____				3					
(4) _____					4				
(4) _____						4			
(4) _____						4			
(3) _____					3				
(4) _____						4			
(4) _____						4			
(3) _____							3		
(4) _____								4	
(3) _____									3
(3) _____									3
(3) _____									3
(3) _____								3 or 3	
(3) _____					3				
129-130	17	18	16-17	16-17	17	16	15-16	13-14	

ENVIRONMENTAL ENGINEERING

Curriculum Notes

2017-2018

SS/HUM ELECTIVES

All CIE students are required to complete at least 18 credits of SS/HUM electives. A *minimum* of one course (or 3 credits) must be chosen from each of the three groups of designated courses listed below. The remaining three SS/HUM electives (or 9 credits) can be selected from the lists below or, in addition to the lists, may be chosen from:

- any College of Arts and Sciences courses that are listed on their Humanities and Social Sciences lists in the SU Bulletin – Undergraduate Course Catalog / Liberal Arts Core
- any foreign language courses (except student's native language)
- ECS 391 – Legal Aspects of ECS
- ECS 392 – Ethical Aspects of ECS.

Group 1: Economics and Social Issues
ECN 203 – Economics Ideas and Issues
ECN 301* – Intermediate Microeconomics
ECN 302* – Intermediate Macroeconomics
ECN 365* – The World Economy
GEO 353 – Geographies of Environmental Justice
SOC 101 – Introduction to Sociology
SOC 102 – Social Problems
SOC 363 – Urban Sociology
STS/BPS 101 – Introduction to Science, Technology and Society

Group 2: Global Affairs
ECN 365 – The World Economy
GEO 103 – Environment and Society
GEO 105 – World Urban Geography
GEO 272 – World Cultures
GEO 273 – World Political Economy
MAX 123 – Critical Issues for the U.S.
MAX 132 – Global Community
PAF 351 – Global Social Problems
PSC 124 – International Relations
PSC 355 – International Political Economy

* requires ECN203 as prerequisite

Group 3: Public Policy and Policy Studies
ECN/WGS 358 – Economics of US Poverty & Discrimination
GEO 203 – Society and the Politics of Nature
GEO 314 – Hazardous Geographic Environments
GEO 356 – Environmental Ideas & Policy
PAF 101 – An Introduction to the Analysis of Public Policy
PAF 409+ – Intermediate Analysis of Public Policy
PAF 451 – Environmental Policy
PSC 302- Environmental Politics and Policy
PSC 305 – US Congressional Politics
PSC 308 – The Politics of US Public Policy
PSC 312 – Urban Government & Politics
PSC 318 – Technology, Politics & Environment

+ requires PAF101 as prerequisite

PROFESSIONAL ELECTIVES

Professional Electives are *upper-level courses* (300 and above; as well as ECS 222, ELE 231, and MAE 251 that have not been used for degree credits), generally from professional schools at SU and SUNY-ESF, and must be selected in consultation with the student's academic advisor. Many Professional Electives can be used towards completion of a minor. Approved Professional Electives are courses offered in the following schools/colleges with the indicated prefixes that meet the above stated criteria.

School/College	Course Prefix
Architecture	ARC
Arts and Sciences	AST, BCM, BIO, CHE, ECN, EAR, GEO, MAX, MAT, PAF, PHY
Engineering and Computer Science	All course prefixes
Information Studies	IST
Whitman	ACC, BUA, EEE, FIN, INB, LPP, MAR, O&M, MGT, SOM
Newhouse	COM
VPA	CRS
SUNY-ESF	All course prefixes

Technical Electives

Technical Electives **MUST** be CIE courses numbered 300 and above. They are to be selected in consultation with a student's advisor to advance the student's knowledge in a specific area of interest in civil or environmental engineering.

Free Electives

Any SU or ESF three or four credit course except Academic Excellence Workshops, Physical Education and remedial courses.