

College of Engineering & Computer Science
Civil Engineering
Fall 2016

Name _____
 SUID _____

pr= prerequisite, co=corequisite

Minor/Second Major (if any): _____

CREDIT	FIRST YEAR		SECOND YEAR		JUNIOR		SENIOR		VAR
	F	S	F	S	F	S	F	S	
MATHEMATICS (15)									
MAT295 Calculus 1	(4)_____	4							
MAT296 Calculus 2 (pr: MAT 295 min C-)	(4)_____		4						
MAT397 Calculus 3 (pr: MAT 296 min C-)	(4)_____			4					
MAT485 Diff. Equations & Matrix Algebra (pr: MAT 397)	(3)_____				3				
SCIENCES (16)									
CHE106 General Chemistry I	(3)_____	3							
CHE107 General Chemistry Lab I (co: CHE 106)	(1)_____	1							
PHY211 General Physics 1 (co: PHY 221, MAT 295)	(3)_____		3						
PHY221 General Physics Lab 1 (co: PHY 211)	(1)_____		1						
PHY212 General Physics 2 (pr: PHY 211, 221, co: PHY 222, MAT 296)	(3)_____			3					
PHY222 General Physics Lab 2 (co: PHY 212)	(1)_____			1					
Select one of the following two courses:	(4)_____		4						
EAR110 Dynamic Earth (4)									
EAR203 Earth System Science (4)									
WRITING SKILLS (9)									
WRT105 Studio 1: Practices of Academic Writing	(3)_____	3							
WRT205 Studio 2: Critical Research and Writing (pr: WRT 105)	(3)_____			3					
WRT307 Adv Writing Studio: Professional Writing (pr: WRT 105, 205)	(3)_____				3				
SOCIAL SCIENCE /HUMANITIES (18) (See curriculum notes)									
SSH Elective _____	(3)_____	3							
SSH Elective _____	(3)_____		3						
SSH Elective _____	(3)_____			3					
SSH Elective _____	(3)_____		3						
SSH Elective _____	(3)_____					3* or 3			
SSH Elective _____	(3)_____							3	
ENGINEERING (19/20)									
ECS101 Intro. to Engr. & Comp. Sci.	(3)_____	3							
ECS221 Statics (pr: PHY 211, co: MAT 296)	(3)_____		3						
ECS222 Dynamics (3) (pr:ECS 221, MAT 296)	(3)_____			3					
ECS325 Mechanics of Solids (pr: ECS 221, co: MAT 397)	(4)_____			4					
CIE/ECS 326 Engineering Materials	(3)_____						3		
Select One of the Following 2 Courses:	()_____					4** or 3			
CIE442 Treatment Proc. In Envir. Engr (pr: CIE 327, CIE 341)									
CIE463 Intro to Sustainable Engr									
CIVIL ENGINEERING (44)									
CIE273 Geomatics and BIM (pr: MAT 295, co:MAT296)	(3)_____		3						
CIE274 Civil & Environmental Engr. Systems (pr: CHE 150, MAT 296)	(3)_____			3					
CIE327/MAE341 Fluid Mechanics (pr: MAT 397, ECS 221)	(4)_____				4				
CIE329 Prob, Stats and Risk for Civ & Env Engr (pr: MAT 485)	(4)_____					4			
CIE331 Analysis of Structures and Materials (pr: ECS 325)	(3)_____				3				
CIE332 Design of Concrete Structures (pr: CIE 331)	(3)_____					3			
CIE337 Intro to Geotechnical Engineering (pr: ECS 325)	(4)_____				4				
CIE338 Foundation Engineering (pr: CIE 337)	(3)_____					3			
CIE341 Intro to Environmental Engr. (pr: CIE 274)	(3)_____				3				
CIE352 Water Resources Engr. (pr: CIE 327 or MAE 341)	(4)_____					4			
CIE401 Construction Engineering & Project Management	(3)_____						3		
CIE443 Transportation Engineering	(3)_____						3		
CIE475 Capstone Design	(4)_____							4	
ELECTIVES (6)									
Free Elective _____	(3)_____							3	
Tech Elective _____	(3)_____							3	
TOTAL CREDITS	127-128	17	18	17	16	17	17-18	12	13

*If SS/H taken, then take CIE 463 Fall senior year
 **If CIE 442 taken, then take SS/H Fall senior year

See reverse side for all notes

CIVIL ENGINEERING

Curriculum Notes

2016-2017

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
- 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

* requires ECN203 as prerequisite

Group 2: Global Affairs
ECN 365 – The World Economy
GEO 103 – Environment and Society
GEO 105 – World Urban Geography
GEO 215 – Global Environmental Change
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

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

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 Physical Education and remedial courses.