College of Engineering & Computer Science

Civil Engineering

Fall 2016

Name _____

SUID _____

pr= prerequisite, co=corequisite

Minor/Second Major (if any): _____

		CREDIT	FIRST YEAR		SOPHOMORE		JUNIOR		SENIOR		VAR
		GRADE	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.