Revised 10/8/14

Civil Engineering Flow Chart (Sustainable Concentration) 2016-2017

							Semester Hours
Term 1	CHM 114 Gen Chem	FSE 100 Intro to CE	ENG 101 Fr Comp	MAT 265 Calc I	HU/SB Elective	SU 101-CEE ASU Exp	
	4	2	3	3	3	1	16
Term 2	MAT 242 Lin Alg	ENG 102 Fr Comp	MAT 266 Calc II	PHY121/122 Physics I	CEE 181 Tech/Soc/Sust		
	2	3	3	3+1	3		15
Term 3	CEE 210 Statics	MAT 267 Calc III	PHY131/132 Physics II	MAT 275 Mod Diff Q	ECN 212		
	3	3	3+1	3	3		16
Term 4	Basic Sci Elective	CEE 213 Def Solids	CEE 212 Dynamics	IEE 380 Prob/Stats	SB & C & G Elective		
	3	3	3	3	3		15
Term 5	CEE 384 Num Meth	CEE 353 CE Mat	CEE 341 Fluid Mech	CEE 361 Env Eng			
	3	4	4	4			15
Term 6	CEE 372 Trans Eng	CEE 321 Struct Analy	CEE 351 Geo Eng	MAE 240 Thermo			
	3	4	4	4			15
Term 7	CEE 300 Eng Bus	Design Elective	SOS 300 Adv Con/Apprch	Elective Energy	Design Elective		
	3	3	3	3	3		15
Term 8	Tech Elective	CEE485 Sust CE	CEE 486 Int Design	CEE 400 Erth Sys			
	3	3	4	3			13

TOTAL: 120

General Studies - 15 hours (5 classes)

HU	
HU	CEE 181
SB	ECN
SB	
UD	CEE 400
C	
G	
H	CEE 400

Course Hours	Semester Offered	Course Number	Title	Pre-Requisites
2	F, S	FSE 100	Intro to Civil Engineering	CEE student
3	F, S	CEE 181	Tech, Society & Sustain Systems	none
3	F, S, SU	CEE 210	Statics	FSE 100, MAT 266, PHY 121/122
3	F, S, SU	CEE 212	Dynamics	CEE 210, MAT 275
3	F, S, SU	CEE 213	Deformable Solids	CEE 210, MAT 275
3	F, S,SU	CEE 300	Engineering Business Practice	junior/senior standing, MAT 267
4	F, S	CEE 321	Structural Analysis & Design	CEE 212, CEE 213, pre/co-req CEE 384
4	F, S,SU	CEE 341	Fluid Mechanics	CEE 212, CEE 213, pre/co-req CEE 384
4	F, S, SU	CEE 351	Geotechnical Engineering	CEE 213
4	F, S, SU	CEE 353	Civil Engineering Materials	CEE 213
4	F, S, SU	CEE 361	Intro to Envrn Engineering	CEE 213, CHM 114 or CHM 116 (D), pre/co-req IEE 380 (D)
3	F, S, SU	CEE 372	Transportation Engineering	CEE 213, pre/co req IEE 380 (D)
3	F, S,SU	CEE 384	Numerical Methods	MAT 242, MAT 275, pre/co-req MAT 267
3	F, S,SU	CEE 400	Earth Systems Eng Mgt	CEE 300
3	F,S	CEE 485	Sustain Civil & Envrn Eng	CEE 300, MAT 242
4	F, S	CEE 486	Integrated Civil Engineering Design	last semester and department consent
3	S	CEE 494	Sustainable Energy & Materials	
3	F, S,SU	SOS 300	Adv Concepts & Integrated Apprch	
4	F, S,SU	MAE 240	Thermofluids I	CEE 212
3	F, S, SU	IEE 380	Prob Stats Eng Prob Solving	MAT 266
3	F, S, SU	MAT 242	Elementary Linear Algebra	MAT 265
3	F, S, SU	MAT 265	Calculus for Engineers I	MAT 170 or equiv
3	F, S, SU	MAT 266	Calculus for Engineers II	MAT 265
3	F, S, SU	MAT 267	Calculus for Engineers III	MAT 266
3	F, S, SU	MAT 275	Modern Differential Equations	MAT 266
3	F, S, SU	PHY 121	Univ Physics I: Mechanics	MAT 265 , pre/co-req MAT 266
1	F, S, SU	PHY 122	Univ Physics Lab I	pre/co-req PHY 121
3	F, S, SU	PHY 131	Univ Physics II: Elect & Mag	MAT 266, PHY 121, pre/co-req MAT 267
1	F,S, SU	PHY 132	Univ Physics Lab II	pre/co-req PHY 131
4	F, S, SU	CHM 114	General Chemistry	1 year high school chemistry

DESIGN ELECTIVES
CEE 412, 420, 421, 441, 452, 462, 466, 475

TECHNICAL ELECTIVES
CEE281,412,420,421,452,474,475,481,483, CON453, BIO320, BCH361, CHM302,341, PUP442,485, CON453

ENERGY ELECTIVE
SOS 494, CEE 494,MAE 494,MSE494,EGR 476

Recommended Basic Science: GLG 101
Recommended SB: GCU 141, 361, 362, 442
Recommended HU: CON 101, APH 100, PUP 200

Notes
F-Fall, **S**-Spring, **SU**-Summer
All pre-reqs require a "C" minimum, unless otherwise specified
Technical and design electives can be replaced by independent study CEE 499 or 500-level courses for seniors with a GPA of 3.0 or better and an approved petition