

## Construction Engineering Flow Chart 2017-2018

	Semester Course					Semester	Course	Course	Title	Pre-Requisites	
	Hours	Hours	Hours	Hours	Hours	Offered	Number				
<b>Term 1</b>	CHM 114 Gen Chem	FSE 100 Intro to CE	ENG 101 Fr Comp	MAT 265 Calc I	HU & G Elective	ASU 101-CEE ASU Exp	2	F, S	FSE 100	Intro Civil Engineering	CNE student
							3	F, S, SU	CON 101	Construction & Culture	none
							3	F, S, SU	CNE 210	Statics	FSE 100, MAT 266, PHY 121/122
							3	F, S, SU	CNE 212	Dynamics	CNE 210, MAT 275
	4	2	3	3	3	1		3	F, S, SU	CNE 213	Deformable Solids
<b>Term 2</b>	MAT 242 Lin Alg	ENG 102 Fr Comp	MAT 266 Calc II	PHY121 & 122 Physics I	CON 101 Con & Culture		2	F, S	CNE 241	Surveying	MAT 270
							3	F, S	CNE 243	Hvy Con Equip, Meth, Materials	none
							3	F, S	CNE 271	Construction Safety	CNE student
							4	F, S	CNE 321	Structural Analysis & Design	CNE 212, CNE 213
	2	3	3	3+1	3			4	F, S, SU	CNE 351	Geotechnical Engineering
<b>Term 3</b>	CNE 210 Statics	MAT 267 Calc III	PHY131 & 132 Physics II	MAT 275 Mod Diff O	ECN 211 or 212		4	F, S, SU	CNE 353	Civil Engineering Materials	CNE 213
							4	F, S, SU	CNE 383	Construction Estimating	CNE 243
							3	F, S, SU	CNE 400	Earth Systems Eng Mgt	CNE student
	3	3	3+1	3	3		3	F, S	CNE 453	Project Management I	CNE 271, CNE 383, pre/co-req CNE 495
							3	F, S	CNE 455	Project Management II	CNE 453, pre/co-req CNE 495
<b>Term 4</b>	CNE 243 Hvy Con Equip	CNE 212 Dynamics	CNE 213 Def. Solids	Basic Science	CNE 271 Con Safety		1	SU	CNE 484	Internship	CNE 271
							4	F, S, SU	CNE 486	Integrated Civil Eng Design	last semester and department consent
							3	F, S	CNE 495	Planning & Scheduling	CNE 383, CNE 389
	3	3	3	3	3		3	F, S	CNE 496	Contract Administration	CNE 453
								<b>DESIGN ELECTIVES</b>			
<b>Term 5</b>	IEE 380 Prob/Stats	MAE 240 or EEE 202	CNE 353 CE Mat	CNE 321 Struct Analys			3	F	CEE 420	Steel Structures	CNE 321
							3	S	CEE 421	Concrete Structures	CNE 321
	3	4	4	4			3	F, S, SU	CEE 452	Foundations	CNE 351
<b>Term 6</b>	CNE 351 Geo Eng	CNE 241 Surveying	CNE 383 Con Est	CNE 400 Earth Sys			4	F, S, SU	EEE 202	Circuits I	MAT 275, PHY 131
							4	F, S, SU	MAE 240	Thermofluids I	CNE 212
							3	F, S, SU	IEE 380	Prob Stats Engr Prob Solving	MAT 266
	4	3	4	3			3	F, S, SU	MAT 242	Elementary Linear Algebra	MAT 265
<b>Summer</b>	CNE 484 Internship						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
	1						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
<b>Term 7</b>	CNE 453 Proj Mgt I	Design Elect 420/421/452	Tech Elective	CNE 495 Plan/Sched	SB & C Elective		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 257
							1	F, S, SU	PHY 132	Univ Physics Lab II	pre/co-req PHY 131
	3	3	4	3	3		4	F, S, SU	CHM 114	General Chemistry	1 year high school chemistry
<b>Term 8</b>	Design Elect 420/421/452	CNE 496 Contract Admin	CNE 455 Proj Mgt II	CNE 486 Int Design			3				
							3				
	3	3	3	4			<b>TOTAL: 120</b>				

**General Studies - 15 hours (5 classes)**

HU	
HU	CON 101
SB	ECN
SB	
UD	CNE 400
C	
G	
H	CNE 400

**Recommended Basic Science: GI G 101, CON 106**

**Technical Electives**

CON 310, CON 345, CEE 372 (4 hours)  
 CEE 281, 412, 420, 421, 423, 440, 441, 452, 462, 466, 467, 474, 475, 483 (3 hours)  
 CON 345, 405, 445, 448, 457, 494 Sustainable Construction (3 hours)  
 CON 296 Internship, CEE 494 Concrete Canoe, CEE 494 Steel Bridge (1 hour)

**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