# **Civil Engineering**

## FIRST TERM

Credit	Class
4	MATH 0221
	Calculus I
3	CHEM 0150 (previously Chem 0111)
	General Chem Eng 1
4	PHYS 0150
	Phys for Eng 1
3	ENGR 0017
	Intro to Eng Analysis
3	ENGCMP 0005 *
	Composition 1 (or a 650 or better on reading
	writing portion of SAT)
0	ENGR 0081 Freshman Seminar 1
17	TOTAL

## THIRD TERM

Credit	Class	Pre/Co Req
4	MATH 0241	MATH 0231 Calc II
	Calculus III	(C- or better)
4	ENGR 0020 Prob & Stats for	MATH 0231 Calc II
	Engr 1	(C- or better)
3	ENGR 0132 Statics	ENGR 0150 Phys
		for Eng 1, MATH
		0231 Calc II
3	CE 1503 Intro Envir Engr	CHEM 0151
3	Science Elective	
0	CE 1085 Dept Seminar	
17	TOTAL	

#### FIFTH TERM

Credit	Class	Pre/Co Req
3	CE 1330 Intro Structural	ENGR 0142 Mech of
	Analysis	Matls
3	CE 1402 Fluid Mechanics	
3	CE 1811 Prin Soil Mech	ENGR 0142 Mech of
		Matls
3	CE 1703 Transportation	ENGR 0020
3	CE 1220 Surv. & Land Dev	CE 0110 Comp
		Methods in CE
0	CE 1085 Dept Seminar	
15	TOTAL	

#### SEVENTH TERM

Credit	Class	Pre/Co Req
3	CE 1200 Const Management	CE 1105
3	CE Design Elective	
3	CE Design Elective	
3	CE 1195 CE Prof Practice	
3	COMMRC 0052 Public	
	Speaking	
0	CE 1085 Dept Seminar	
15	TOTAL	

#### SECOND TERM

Credit	Class	Pre/Co Req
4	MATH 0231	MATH 0221 Calc I (C- or
	Calculus II	better)
3	CHEM 0151 with Lab	CHEM 0150 Gen Chem
	(prevously Chem 0115)	Eng 1
	General Chem Eng 2	
4	PHYS 0152	PHYS 0150 Phys for Eng
	Phys for Eng 2	1, MATH 0231 Calc II
3	ENGR 0018	ENGR 0018 Intro to Eng
	Intro Eng Computing	Analy, MATH 0221 Calc I
3	WOK (S&C, GH&C, A&CE)	
0	ENGR 0082 Fresh. Seminar 2	
17	TOTAL	

#### **FOURTH TERM**

Credit	Class	Pre/Co Req
3	MATH 1271	MATH 0241 Calc III
	Differential Eq's	
3	ENGR 0142	ENGR 0132 Statics,
	Mechanics of Materials	MATH 0231 Calc II
3	CE 0110 Computer Methods in	ENGR 0018, MATH 0241
	CE	
3	CE 1105 Materials of Const	ENGR 0142 Mech of
		Matls
3	ENGR 0151 Dynamics	ENGR 0132 Statics,
		MATH 0231 Calc II
3	ENGR 1103 Engr Economics	Sophomore level
0	CE 1085 Dept Seminar	
18	TOTAL	

## SIXTH TERM

Credit	Class	Pre/Co Req
3	CE Design Elective	
3	CE 1412 Hydro & Water Resources	CE 1402 Fluid Mechanics
3	CE 1610 Engr & Sust Dev.	
3	CE Design Elective	
3	ECON 0105 Intro Micro Econ	
0	CE 1085 Dept Seminar	
15	TOTAL	

#### **EIGHTH TERM**

Credit	Class	Pre/ <i>Co</i> Req	
3	WOK (S&C, GH&C, A&CE)		
3	CE 1199 Senior Design Project	CE 1195 CE Prof Practice	
3	CE Elective		
3	Engineering Elective		
3	WOK (S&C, GH&C, A&CE)		
0	CE 1085 Dept. Seminar		
15	TOTAL		

Notes: 1) italic lettering means co-req

CE Schedule\_Rev\_9\_5\_2019-jws

# **Civil Engineering**

# **CE DESIGN ELECTIVES**

CL DESIGN ELECTIVES			
Area	Course	Term	Pre/ <i>Co</i> Req
S	CE 1340 Concrete	F	CE 1330 Intro
	Design		Struc Analysis
S	CE 1341 Steel Design	S	CE 1330 Intro
			Struct Analysis
E/WR	CE 1420 Hydraulic	S	CE 1402 Fluid
	Design		Mechanics
E/WR	CE 1510 Water Supply	F	CE ??
	& Waste Water		
Т	CE 1714 Pavement	S	CE 1703
	Design &		Transportation,
	Management		CE 1811 Prin
			Soil Mech
T	CE 1730 Highway	F	CE 1703
	Surveying & Design		Transportation,
			CE 1220 Surv &
			Land Dev
G	CE 1814 Slopes,	F	CE 1811 Prin
	Seepage & Earth		Soil Mech
	Structures		
G	CE 1821 Foundation	S	CE 1811 Prin
	Engineering		Soil Mech

Students take 4 design electives in a minimum of three different areas (S = structures, E/WR =

Environmental/Water Resources, T = Transportation, G = Geotechnical

## **CE ELECTIVE**

An additional design elective from the list above, or CE 1198 Independent Study (no more than 3 credits of Independent Study may be counted as part of the curriculum requirements)

## **SCIENCE ELECTIVES**

Course	Credits
GEOL 0010 Principles of Astronomy	4
GEOL 0015 Physical Geology	4
GEOL 0024 Meteorology	4
GEOL 0083 Intro. Physical Oceanography	3
GEOL 0090 Earthquakes and Volcanos	3
GEOL 0086 Environmental Geology	3
GEOL 0087 Earth, Climate and Life	3
through Time	
GEOL 0091 Prehistoric Life	3
GEOL 0210 Earth Materials	3
BIOL 0080 Life Sciences	3
BIOL 0083 Human Ecology	3
BIOL 0110 General Biology I	3
BIOL 0950 Anatomy and Physiology 1	3

## **ENGINEERING ELECTIVES**

Course	Credits
Any CHE, EE, ENGR, or ME course for which Prerequisites are met (listed below)	3
CHE 0214 Intro to Chemical Product Design	3
EE 0031 Linear Circuits and Systems 1	3
EE 0445 Programming and Intro to Data Structures	3
ENGR 0022 Material Structure and Properties	3
ENGR 1115 Engineering Leadership	3
ME 0024 Intro to Mechanical Engineering Design	3
ME 0052 Thermo 1	3
ME 1173 Finite Element Methods (consent required)	3
MATH 1181 Linear Algebra	3
CE 1198 Independent Study (no more than 3 credits may be counted as part of the curriculum requirements)	3
Any CE Design Elective not taken elsewhere as a CE Design Elective or the CE Elective	3
CE Co-op (must earn 3 credits)	3
GEOG 1440 Geographic Information Systems (consent required)	3