

**Course Requirements and Registration Priorities
School of Engineering (Undergraduate), Spring 2019**

#	Abbr	Title	Cr(US)	Cr(ECTS)	PreRequisite	CoRequisite	AntiRequisite	1st priority registration	2nd priority registration	3rd priority registration	4th priority registration
SEDS											
Chemical and Materials Engineering											
1	ECHE 210	Foundations of Unit Operations	3	6				Registration by School Office			
2	ECHE 221	Engineering Fluid Mechanics	3	6				Registration by School Office			
3	ECHE 270	Transport Phenomena-I	3	6				Registration by School Office			
4	ECHE 323	Computational methods in Chemical Engineering-I	3	6	ECHE 333 Separation Processes-I (1271) (D and above)	ECHE 481 Chemical Reaction Engineering (1985) (D and above)		Registration by School Office			
5	ECHE 383	Separation Processes II	3	6	ECHE 126 Introduction to Chemical Engineering (33) (D and above) AND ECHE 225 Heat and Mass Transfer Operations (541) (D and above)			Registration by School Office			
6	ECHE 386	Chemical Plant Design and Optimization	3	6				Registration by School Office			
7	ECHE 387	Chemical Reaction Engineering 2	3	6				Registration by School Office			
8	ECHE 388	Process Dynamics and Control	3	6				Registration by School Office			
9	ECHE 420	Polymer Processing and Rheology	3	6				4 year UG SENG Chemical Engineering	4 year UG SENG	SEng, SHSS, SMG, SST	
10	ECHE 421	Tissue Engineering	3	6				4 year UG SENG Chemical Engineering	4 year UG SENG	SEng, SHSS, SMG, SST	
11	ECHE 479	Capstone Project II	9	18	ECHE 418 Capstone project 1 (1278) (D and above)			Registration by School Office			
12	ECHE 483	Chemistry II	3	6	ECHE 222 Chemistry I (731) (D and above)			Registration by School Office			
13	ECHE 485	Introduction to Biochemical Engineering	3	6				4 year UG SENG Chemical Engineering	4 year UG SENG	SEng, SHSS, SMG, SST	
Civil Engineering											
14	ECE 210	Soil Mechanics	3	6				Registration by School Office			

15	ECE 218	Environmental Chemistry	3	6				Registration by School Office			
16	ECE 219	Hydraulics	3	6				Registration by School Office			
17	ECE 306	Geotechnical Design	3	6	ECE 210 Soil Mechanics (862) (D and above)			Registration by School Office			
18	ECE 319	Structural Design - Steel	3	6				Registration by School Office			
19	ECE 320	Engineering Hydrology	3	6				Registration by School Office			
20	ECE 420	Modern Information Technology in Construction	3	6				4 year UG SEng Civil Engineering	4 year UG SENG	SEng, SHSS, SMG, SST	
21	ECE 422	Prestressed Concrete Design	3	6				3 year UG SEng Civil Engineering	3 year UG SENG, 4 year UG SENG	SEng, SHSS, SMG, SST	
22	ECE 423	Structure and Properties of Concrete Materials	3	6				3 year UG SEng Civil Engineering	3 year UG SENG, 4 year UG SENG	SEng, SHSS, SMG, SST	
23	ECE 427	Individual Research Projects in Civil Engineering (II)	3	6	ECE 481 Individual Research Projects in Civil Engineering (4484) (D and above)			4 year UG SEng Civil Engineering	4 year UG SENG	SEng, SHSS, SMG, SST	
24	ECE 472	Water and Wastewater Treatment Processes	3	6	ECE 218 Environmental Chemistry (3296) (D and above)			Registration by School Office			
25	ECE 473	Environmental Systems	3	6				4 year UG SEng Civil Engineering	4 year UG SENG	SEng, SHSS, SMG, SST	
26	ECE 478	Capstone Project II	9	18	ECE 401 Capstone Project 1 (1270) (D and above)			Registration by School Office			
27	ECE 479	Structural Analysis II	3	6	ECE 217 Structural Analysis I (3156) (D and above)			Registration by School Office			
Electrical and Electronic Engineering											
28	EEE 210	Software Engineering	3	6	BENG 146 Programming for Engineers (2234) (D and above)			Registration by School Office			
29	EEE 211	Computer Systems Architecture	3	6	ECHE 126 Introduction to Chemical Engineering (33) (D and above)			Registration by School Office			
30	EEE 239	Communication systems	3	6				Registration by School Office			
31	EEE 340	Data Communications	3	6				Registration by School Office			
32	EEE 341	Digital Electronic System Design	3	6				Registration by School Office			
33	EEE 343	Embedded Microcontrollers	3	6				Registration by School Office			

34	EEE 379	Power Systems Analysis	3	6				Registration by School Office			
35	EEE 381	Electrical Machines and Drives	3	6				Registration by School Office			
36	EEE 411	Special Topics in Signal Processing	3	6				4 year UG SEng Electrical and Electronic Engineering	4 year UG SENG	SEng, SHSS, SMG, SST	
37	EEE 480	Capstone Project II	9	18				Registration by School Office			
38	EEE 484	Electric Power Generation	3	6				4 year UG SEng Electrical and Electronic Engineering	4 year UG SENG	SEng, SHSS, SMG, SST	
39	EEE 485	Power System Operation and Control	3	6	EEE 379 Power Systems Analysis (1956) (D and above) OR EEE 452 Power Systems Protection (2652) (D and above)			4 year UG SEng Electrical and Electronic Engineering	4 year UG SENG	SEng, SHSS, SMG, SST	
40	EEE 486	Photonics for Engineering	3	6	EEE 342 Electromagnetics (533) (D and above)			4 year UG SEng Electrical and Electronic Engineering	4 year UG SENG	SEng, SHSS, SMG, SST	
41	EEE 489	Analog Circuit Design	3	6				Registration by School Office			
42	EEE 494	Modern Characterizations for Semiconductor Industry	3	6				4 year UG SEng Electrical and Electronic Engineering	4 year UG SENG	SEng, SHSS, SMG, SST	
43	EEE 495	Fundamentals of Biomedical Engineering and Biophysics	3	6				4 year UG SEng Electrical and Electronic Engineering	4 year UG SENG	SEng, SHSS, SMG, SST	
Mechanical Engineering											
44	EME 275	Fluid Mechanics I	3	6				Registration by School Office			
45	EME 300	Research Project	3	6				Registration by School Office			
46	EME 352	Computational Fluid Dynamics	3	6				Registration by School Office			
47	EME 357	Fluid Mechanics 2	3	6				Registration by School Office			
48	EME 377	Mechanical Systems Design	3	6	EME 361 Machine Design (1051) (D and above)			Registration by School Office			
49	EME 414	Fire Engineering	3	6	BENG 226 Engineering Thermodynamics (1553) (D and above)			4 year UG SEng Mechanical Engineering	4 year UG SENG	SEng, SHSS, SMG, SST	
50	EME 415	Flight Mechanics	3	6				4 year UG SEng Mechanical Engineering	4 year UG SENG	SEng, SHSS, SMG, SST	
51	EME 464	Materials and Manufacturing 1	3	6				Registration by School Office			
52	EME 476	Materials and Manufacturing II	3	6				Registration by School Office			

53	EME 477	Capstone Project II	9	18				Registration by School Office			
54	EME 480	Industrial Automation	3	6				Registration by School Office			
55	EME 489	Advanced Engineering Mathematics	3	6	BENG 228 Engineering Mathematics III (3154) (D and above)			4 year UG SEng Mechanical Engineering	4 year UG SENG	SEng, SHSS, SMG, SST	
Mechanical and Aerospace Engineering											
56	ENG 102	Engineering Materials I	3	6				1 year UG SEng Civil and Environmental Engineering, 1 year UG SEng Mechanical and Aerospace Engineering, 1 year UG SMG	1 year UG SHSS, 1 year UG SST, 2 year UG SENG, 3 year UG SENG, 4 year UG SENG	SEng, SHSS, SMG, SST	
57	ENG 103	Engineering Materials 2	3	6				1 year UG SEng Chemical and Materials Engineering, 1 year UG SENG Electrical and Computer Engineering, 1 year UG SMG	1 year UG SHSS, 1 year UG SST, 2 year UG SENG, 3 year UG SENG, 4 year UG SENG	SEng, SHSS, SMG, SST	
School of Engineering											
58	BENG 114	Introduction to Electrical Systems	3	6				Registration by School Office			
59	BENG 219	Control Systems	3	6				Registration by School Office			
60	BENG 226	Engineering Thermodynamics	3	6				Registration by School Office			
61	BENG 343	Interdisciplinary Design Project	3	6							