

**Course Requirements and Registration Priorities  
School of Engineering (Undergraduate), Spring 2018**

#	Abbr	Title	Cr(US)	Cr(ECTS)	PreRequisite	CoRequisite	AntiRequisite	1st priority registration	2nd priority registration	3rd priority registration	4th priority registration
<b>SEng</b>											
<b>Chemical Engineering</b>											
1	ECHE 210	Foundations of Unit Operations	3	6							
2	ECHE 221	Engineering Fluid Mechanics	3	6							
3	ECHE 270	Transport Phenomena-I	3	6							
4	ECHE 323	Computational methods in Chemical Engineering-I	3	6	ECHE 333 Separation Processes-I (D and above)	ECHE 481 Chemical Reaction Engineering (D and above)					
5	ECHE 383	Separation Processes II	3	6	ECHE 126 Introduction to Chemical Engineering (D and above) AND ECHE 225 Heat and Mass Transfer Operations (D and above)						
6	ECHE 386	Chemical Plant Design and Optimization	3	6							
7	ECHE 387	Chemical Reaction Engineering 2	3	6							
8	ECHE 388	Process Dynamics and Control	3	6							
9	ECHE 420	Polymer Processing and Rheology	3	6							
10	ECHE 421	Tissue Engineering	3	6							
11	ECHE 478	Electrochemical Engineering and Corrosion Protection	3	6	ECHE 222 Chemistry I (D and above)						
12	ECHE 479	Capstone Project II	9	18	ECHE 418 Capstone project 1 (D and above)						
13	ECHE 483	Chemistry II	3	6	ECHE 222 Chemistry I (D and above)						
<b>Civil Engineering</b>											
14	ECE 210	Soil Mechanics	3	6							
15	ECE 218	Environmental Chemistry	3	6							
16	ECE 219	Hydraulics	3	6							
17	ECE 306	Geotechnical Design	3	6	ECE 210 Soil Mechanics (D and above)						
18	ECE 319	Structural Design - Steel	3	6							
19	ECE 320	Engineering Hydrology	3	6							
20	ECE 405	Environmental Engineering	3	6	ECE 473 Environmental Systems (D and above) OR ECE 218 Environmental Chemistry (D and above)						

21	ECE 420	Modern Information Technology in Construction	3	6							
22	ECE 421	Behaviour and Design of Structural System	3	6	ECE 314 Structural Engineering Applications I (D and above) AND ECE 315 Structural Engineering Applications II (D and above)						
23	ECE 422	Prestressed Concrete Design	3	6							
24	ECE 423	Structure and Properties of Concrete Materials	3	6							
25	ECE 472	Water and Wastewater Treatment Processes	3	6	ECE 218 Environmental Chemistry (D and above)						
26	ECE 478	Capstone Project II	9	18	ECE 401 Capstone Project 1 (D and above)						
27	ECE 479	Structural Analysis II	3	6	ECE 217 Structural Analysis I (D and above)						
<b>Electrical and Electronic Engineering</b>											
28	EEE 210	Software Engineering	3	6	BENG 146 Programming for Engineers (D and above)						
29	EEE 211	Computer Systems Architecture	3	6	EEE 341 Digital Electronic System Design (D and above)						
30	EEE 239	Communication systems	3	6							
31	EEE 340	Data Communications	3	6							
32	EEE 341	Digital Electronic System Design	3	6							
33	EEE 343	Embedded Microcontrollers	3	6							
34	EEE 379	Power Systems Analysis	3	6							
35	EEE 381	Electrical Machines and Drives	3	6							
36	EEE 411	Special Topics in Signal Processing	3	6							
37	EEE 480	Capstone Project II	9	18							
38	EEE 484	Electric Power Generation	3	6							
39	EEE 485	Power System Analysis 2	3	6							
40	EEE 486	Photonics for Engineering	3	6	EEE 342 Electromagnetics (D and above)						
41	EEE 487	Intelligent Algorithms for Power Systems	3	6							
42	EEE 488	Numerical Optimization Techniques and Computer Applications	3	6							
43	EEE 489	Analog Circuit Design	3	6	EEE 379 Power Systems Analysis (D and above)						
<b>Mechanical Engineering</b>											
44	EME 275	Fluid Mechanics I	3	6							
45	EME 300	Research Project	3	6							
46	EME 352	Computational Fluid Dynamics	3	6							
47	EME 357	Fluid Mechanics 2	3	6							

48	EME 377	Mechanical Systems Design	3	6	EME 361 Machine Design (D and above)						
49	EME 414	Fire Engineering	3	6	BENG 226 Engineering Thermodynamics (D and above)						
50	EME 415	Flight Mechanics	3	6							
51	EME 464	Materials and Manufacturing 1	3	6							
52	EME 476	Materials and Manufacturing II	3	6							
53	EME 477	Capstone Project II	9	18							
54	EME 479	Particulate Technology	3	6							
55	EME 480	Industrial Automation	3	6							
56	EME 488	Structural Mechanics	3	6							
<b>School of Engineering</b>											
57	BENG 114	Introduction to Electrical Systems	3	6							
58	BENG 147	Introduction to Fluid Mechanics and Thermodynamics	3	6	BENG 124 Engineering Mathematics I (D and above)						
59	BENG 148	Engineering Practice	3	6							
60	BENG 201	Engineering Economy	3	6							
61	BENG 219	Control Systems	3	6							
62	BENG 225	Engineering Mathematics II	3	6							
63	BENG 226	Engineering Thermodynamics	3	6							