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

#	Abbr	Title	Cr(US)	Cr(ECTS)	PreRequisite	CoRequisite	AntiRequisite	1st priority registration	2nd priority registration	3rd priority registration	4th priority registration
SEng											
Chemical Engineering											
1	ECHE 126	Introduction to Chemical Engineering	3	6							
2	ECHE 222	Chemistry I	3	6							
3	ECHE 319	Chemical Engineering Thermodynamics	3	6							
4	ECHE 333	Separation Processes-I	3	6	ECHE 319 Chemical Engineering Thermodynamics (D and above)						
5	ECHE 369	Transport Phenomena-II	3	6							
6	ECHE 385	Research Practice	3	6							
7	ECHE 418	Capstone project 1	3	6	ECHE 323 Computational methods in Chemical Engineering-I (D and above)						
8	ECHE 478	Electrochemical Engineering and Corrosion Protection	3	6	ECHE 222 Chemistry I (D and above)			4 year UG SEng Chemical Engineering			
9	ECHE 481	Chemical Reaction Engineering	3	6	ECHE 126 Introduction to Chemical Engineering (D and above) AND BENG 124 Engineering Mathematics I (D and above) AND BENG 225 Engineering Mathematics II (D and above)						
10	ECHE 484	Multi-Phase Flows	3	6	ECHE 319 Chemical Engineering Thermodynamics (D and above) AND ECHE 270 Transport Phenomena-I (D and above)			4 year UG SEng Chemical Engineering			
11	ECHE 486	Chemical Process Safety	3	6							
12	ECHE 487	Soft Matter, Foods and Colloids	3	6				4 year UG SEng Chemical Engineering			
13	ECHE 488	Atmospheric Chemistry and Physics	3	6				4 year UG SEng Chemical Engineering			
Civil Engineering											
14	ECE 215	Surveying	3	6							
15	ECE 216	Civil Engineering CAD	3	6							
16	ECE 217	Structural Analysis I	3	6	BENG 117 Engineering Mechanics (D and above)						

17	ECE 302	Civil Engineering Materials	3	6	BENG 221 Engineering Materials (D and above)						
18	ECE 303	Construction Management and Practice	3	6	BENG 148 Engineering Practice (D and above)						
19	ECE 307	Engineering Geology and Rock Mechanics	3	6							
20	ECE 318	Structural Design - Concrete	3	6	ECE 479 Structural Analysis II (C- and above)						
21	ECE 401	Capstone Project 1	3	6							
22	ECE 404	Construction Technologies and Processes	3	6	BENG 148 Engineering Practice (D and above) AND ECE 302 Civil Engineering Materials (D and above)						
23	ECE 405	Environmental Engineering	3	6	ECE 473 Environmental Systems (D and above) OR ECE 218 Environmental Chemistry (D and above)						
24	ECE 416	Highway Engineering	3	6	ECE 302 Civil Engineering Materials (D and above)						
25	ECE 421	Behaviour and Design of Structural System	3	6	(ECE 318 Structural Design - Concrete (D and above) OR ECE 314 Structural Engineering Applications I (D and above)) AND (ECE 319 Structural Design – Steel (D and above) OR ECE 315 Structural Engineering Applications II (D and above))			4 year UG SEng Civil Engineering			
26	ECE 481	Individual Research Projects in Civil Engineering	3	6							
27	ECE 482	Solid and Hazardous Waste Management	3	6	ECE 405 Environmental Engineering (C- and above)			4 year UG SEng Civil Engineering			
Electrical and Electronic Engineering											
28	EEE 212	Signals and Systems	3	6	BENG 225 Engineering Mathematics II (D and above)						
29	EEE 238	Digital Signal and Image Processing	3	6							
30	EEE 250	Microelectronic Devices and Circuits	3	6	BENG 114 Introduction to Electrical Systems (D and above)						
31	EEE 251	Electronic Engineering Design Principles	3	6	BENG 114 Introduction to Electrical Systems (D and above)						
32	EEE 342	Electromagnetics	3	6							
33	EEE 345	Power Electronics	3	6							
34	EEE 382	Antennas and Propagation	3	6							
35	EEE 384	Digital Integrated Circuits Design	3	6	EEE 250 Microelectronic Devices and Circuits (C- and above)						
36	EEE 437	Capstone Project 1	3	6							

37	EEE 448	Power Transmission and Distribution plants	3	6							
38	EEE 450	RF and Microwave Circuit Design	3	6							
39	EEE 451	High Voltage Engineering	3	6							
40	EEE 452	Power Systems Protection	3	6							
41	EEE 482	Mobile Communications	3	6	EEE 239 Communication systems (C- and above)						
42	EEE 490	Introduction to Big Data	3	6							
43	EEE 491	Internet of Things	3	6	BENG 146 Programming for Engineers (C- and above) AND EEE 343 Embedded Microcontrollers (C- and above)						
44	EEE 492	Deep Learning Machines	3	6							
45	EEE 493	Industry 4.0	3	6							
Mechanical Engineering											
46	EME 253	Computer Aided Engineering	3	6							
47	EME 254	Mechanics of Materials	3	6							
48	EME 262	Machine Dynamics I	3	6							
49	EME 354	Advanced Control Systems	3	6	BENG 219 Control Systems (D and above)						
50	EME 358	Heat Transfer	3	6	BENG 226 Engineering Thermodynamics (D and above) AND EME 275 Fluid Mechanics I (D and above)						
51	EME 361	Machine Design	3	6							
52	EME 410	Aerodynamics	3	6	EME 357 Fluid Mechanics 2 (D and above)						
53	EME 412	Heating, Ventilating, and Air Conditioning	3	6							
54	EME 413	Computer Aided Geometric Design	3	6	EME 253 Computer Aided Engineering (C- and above)						
55	EME 451	Capstone project 1	3	6							
56	EME 456	Feasibility Analysis of Clean Energy Technologies	3	6							
57	EME 463	Machine Dynamics II	3	6							
58	EME 467	Vehicle Propulsion Systems	3	6			EME 456 Feasibility Analysis of Clean Energy Technologies (C- and above)				
59	EME 487	Mechatronics Systems Design	3	6	BENG 219 Control Systems (C- and above)						
Mechanical and Aerospace Engineering											

60	ENG 100	Introduction to Engineering	3	6				1 year UG SENG	1 year UG SMG, 1 year UG SST	1 year UG SHSS	
61	ENG 101	Programming for Engineers	3	6				1 year UG SENG	1 year UG SMG, 1 year UG SST	1 year UG SHSS	
School of Engineering											
62	BENG 215	Sensors and Actuators	3	6							
63	BENG 228	Engineering Mathematics III	3	6	BENG 124 Engineering Mathematics I (D and above) AND BENG 225 Engineering Mathematics II (D and above)						
64	BENG 405	Project Management	3	6							