

**Course Requirements and Registration Priorities  
School of Engineering, Fall 2016**

#	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 126	Introduction to Chemical Engineering	3	6							
2	ECHE 222	Chemistry I	3	6							
3	ECHE 319	Chemical Engineering Thermodynamics	3	6							
4	ECHE 321	Chemistry II	3	6							
5	ECHE 331	Process Control and Optimization	3	6							
6	ECHE 333	Separation Processes-I	3	6	ECHE 319 Chemical Engineering Thermodynamics (D and above)						
7	ECHE 369	Transport Phenomena-II	3	6							
8	ECHE 418	Capstone project 1	3	6	ECHE 323 Computational methods in Chemical Engineering-I (D and above)						
9	ECHE 419	Advanced Process Simulation	3	6	ECHE 323 Computational methods in Chemical Engineering-I (D and above)	ECHE 482 Computational Methods in Chemical Engineering-II (D and above)					
10	ECHE 482	Computational Methods in Chemical Engineering-II	3	6	ECHE 319 Chemical Engineering Thermodynamics (D and above) AND ECHE 333 Separation Processes-I (D and above) AND ECHE 383 Separation Processes II (D and above) AND ECHE 481 Chemical Reaction Engineering (D and above) AND ECHE 323 Computational methods in Chemical Engineering-I (D and above)						
11	ECHE 484	Multi-Phase Flows	3	6	ECHE 319 Chemical Engineering Thermodynamics (D and above) AND ECHE 270 Transport Phenomena-I (D and above)						

12	MCHE 613	Physical Chemistry of Oil & Gas	1.5	3							
13	MCHE 614	Applied Chemical Engineering Thermodynamics	1.5	3							
14	MCHE 615	Advanced Unit Operations	1.5	3							
15	MCHE 616	Advanced Chemical Reactor Engineering	1.5	3	ECHE 481 Chemical Reaction Engineering (D and above)						
16	MCHE 618	Plant Economics and Planning	1.5	3							
17	MCHE 619	Safety Engineering and Loss Prevention	1.5	3							
<b>Civil Engineering</b>											
18	ECE 215	Surveying	3	6							
19	ECE 216	Civil Engineering CAD	3	6							
20	ECE 217	Structural Analysis I	3	6	BENG 117 Engineering Mechanics (D and above)						
21	ECE 300	Hydraulic Systems	3	6							
22	ECE 303	Construction Management and Practice	3	6	BENG 148 Engineering Practice (D and above)						
23	ECE 307	Engineering Geology and Rock Mechanics	3	6							
24	ECE 314	Structural Engineering Applications I	3	6	ECE 213 Structural Engineering Analysis (D and above) OR ECE 217 Structural Analysis I (D and above)						
25	ECE 401	Capstone Project 1	3	6							
26	ECE 404	Construction Technologies and Processes	3	6	BENG 148 Engineering Practice (D and above) AND ECE 302 Civil Engineering Materials (D and above)						
27	ECE 416	Highway Engineering	3	6	ECE 302 Civil Engineering Materials (D and above)						
28	ECE 473	Environmental Systems	3	6							
29	EMEM 502	Decision Models	1.5	3							
30	EMEM 505	Operations Management	1.5	3							
31	EMEM 507	Project Management	3	6							
32	EMEM 509	Systems Engineering	3	6							
33	EMEM 513	Entrepreneurship	2	4							

34	EMEM 519	Product Development	1.5	3							
35	EMEM 522	Quality Management	1.5	3							
36	EMEM 523	Supply Chain Management	3	6							
37	EMEM 528	Information Systems Mananagement	1.5	3							
38	EMEM 530	Technology Assessment	1.5	3							
39	EMEM 533	Engineering Management and Engineering Economy	3	6							
40	MCE 601	Sustainable Development	3	6							
41	MCE 604	Advanced Project Management	3	6							
42	MCE 606	Environmental Impacts and Assessments	3	6							
43	MSC 615	Advanced statistics and probability	3	6	BENG 228 Engineering Mathematics III (D and above)						
44	MSC 616	Research Methods	3	6							
<b>Electrical and Electronic Engineering</b>											
45	EEE 238	Digital Signal and Image Processing	3	6							
46	EEE 250	Microelectronic Devices and Circuits	3	6	BENG 114 Introduction to Electrical Systems (D and above)						
47	EEE 251	Electronic Engineering Design Principles	3	6	BENG 114 Introduction to Electrical Systems (D and above)						
48	EEE 341	Digital Electronic System Design	3	6							
49	EEE 342	Electromagnetics	3	6							
50	EEE 343	Embedded Microcontrollers	3	6							
51	EEE 345	Power Electronics	3	6							
52	EEE 382	Antennas and Propagation	3	6							
53	EEE 435	Digital Communications	3	6							
54	EEE 437	Capstone Project 1	3	6							
55	EEE 448	Power Transmission and Distribution plants	3	6							
56	EEE 450	RF and Microwave Circuit Design	3	6							
57	EEE 451	High Voltage Engineering	3	6							
58	EEE 452	Power Systems Protection	3	6							
59	MEE 600	MSc Thesis in Electrical and Electronics Engineering	15	30							
60	MEE 607	Statistical Signal Processing	3	6							
61	MEE 608	Special Topics in Circuits Theory	3	6							

**Mechanical Engineering**

62	EME 253	Computer Aided Engineering	3	6							
63	EME 254	Mechanics of Materials	3	6							
64	EME 352	Computational Fluid Dynamics	3	6							
65	EME 357	Fluid Mechanics 2	3	6							
66	EME 358	Heat Transfer	3	6							
67	EME 361	Machine Design	3	6							
68	EME 451	Capstone project 1	3	6							
69	EME 464	Materials and Manufacturing 1	3	6							
70	EME 467	Vehicle Propulsion Systems	3	6			EME 456 Feasibility Analysis of Clean Energy Technologies (C- and above)				
71	EME 485	Applied Statistics and Probability	3	6	EME 485 Applied Statistics and Probability (D and above)						
72	EME 486	Oscillations of mechanical systems	3	6							
73	MME 600	MSc Thesis in Mechanical Engineering	15	30							
74	MME 604	Engineering Mathematics	3	6							
75	MME 605	Numerical Techniques for Engineers	3	6							
76	MME 606	Advanced control systems	3	6							

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77	BENG 117	Engineering Mechanics	3	6							
78	BENG 124	Engineering Mathematics I	3	6							
79	BENG 145	Occupal & Environment Health and Safety	3	6							
80	BENG 146	Programming for Engineers	3	6							
81	BENG 201	Engineering Economy	3	6							
82	BENG 215	Sensors and Actuators	3	6							
83	BENG 221	Engineering Materials	3	6							
84	BENG 228	Engineering Mathematics III	3	6	BENG 124 Engineering Mathematics I (D and above) AND BENG 225 Engineering Mathematics II (D and above)						
85	BENG 405	Project Management	3	6							
86	DENG 782	Personal and Professional Skills Development	0	3							
87	DENG 785	PhD proposal oral defence	0	0							