

Course Requirements and Registration Priorities
School of Engineering and Digital Sciences, Fall 2023

#	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	CHME 200	Basic Principles and Calculations in Chemical Engineering	3	6				2 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
2	CHME 201	Chemical Engineering Thermodynamics	3	6				2 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
3	CHME 222	Inorganic and Analytical Chemistry	3	6				2 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
4	CHME 300	Heat and Mass Transfer	3	6				3 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
5	CHME 301	Applied Mathematics for Process Design	3	6				3 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
6	CHME 302	Instrumental Methods of Analysis for Engineers	3	6				3 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
7	CHME 351	Environment and Development	3	6				3 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
8	CHME 353	Electrochemical Engineering	3	6				3 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
9	CHME 400	Process Design and Simulation	3	6	CHME 300 Heat and Mass Transfer (5952) (D and above) AND CHME 304 Chemical Reaction Engineering (6168) (D and above)			4 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
10	CHME 401	Chemical Engineering Lab II	3	6				4 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
11	CHME 453	Multiphase Systems	3	6	CHME 202 Fluid Mechanics (5543) (D and above)			4 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
12	DCHME 700-0	Thesis Research	0	0				Chemical Engineering	Science, Engineering and Technology		
13	DCHME 755	Integrated Computational Materials Engineering	4	8				Chemical Engineering	Science, Engineering and Technology		

14	DCHME 761	Advanced Chemical Reaction Engineering	4	8				Chemical Engineering	Science, Engineering and Technology		
15	DCHME 762	Advanced Materials Processing	4	8				Chemical Engineering	Science, Engineering and Technology		
16	MBME 601	Master Thesis I	12	24				2 year Gr SEDS Biomedical Engineering			
17	MBME 603	Biomaterials Science & Engineering	3	6				1 year Gr SEDS Biomedical Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	SMG	
18	MBME 604	Biosensors	3	6				1 year Gr SEDS Biomedical Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	SMG	

19	MBME 610	Anatomy and Physiology for Biomedical Engineers	3	6				1 year Gr SEDS Biomedical Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	SMG	
20	MBME 710	Biophotonics	3	6				2 year Gr SEDS Biomedical Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	SMG	
21	MCHME 601	Master Thesis I	12	24				2 year Gr SEDS Chemical and Materials Engineering			
22	MCHME 603	Advanced Materials Processing	3	6				1 year Gr SEDS Chemical and Materials Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	SMG	

23	MCHME 604	Advanced Materials Characterization Methods	3	6				1 year Gr SEDS Chemical and Materials Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	SMG	
24	MCHME 605	Advanced Chemical Reaction Engineering	3	6				1 year Gr SEDS Chemical and Materials Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	SMG	
25	MCHME 714	Computational Materials Engineering	3	6				2 year Gr SEDS Chemical and Materials Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	SMG	

Civil Engineering

26	MSC 600	Research Methods and Ethics	3	6				2 year Gr SEDS Engineering Management	1 year Gr SEDS Engineering Management	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	
27	MSC 601	Technical Communication	3	6				SEDS, SMG			
28	MSC 602	Advanced Applied Mathematics	3	6				1 year Gr SEDS Electrical and Computer Engineering, 1 year Gr SEDS Mechanical and Aerospace Engineering, Biomedical Engineering, Chemical and Materials Engineering	1 year Gr SEDS Civil and Environmental Engineering, 2 year Gr SEDS Electrical and Computer Engineering		
29	MSC 615	Advanced Statistics and Probability	3	6				1 year Gr SEDS Engineering Management			
Civil and Environmental Engineering											
30	CEE 200	Structural Mechanics I	3	6				2 year UG SEDS Civil and Environmental Engineering, 2 year UG SEDS Mechanical and Aerospace Engineering	Civil and Environmental Engineering, Mechanical and Aerospace Engineering	SMG	

31	CEE 201	Environmental Chemistry	3	6				2 year UG SEDS Civil and Environmental Engineering, 2 year UG SEDS Mechanical and Aerospace Engineering	Civil and Environmental Engineering, Mechanical and Aerospace Engineering		
32	CEE 204	Civil Engineering CAD and Surveying	3	6				2 year UG SEDS Civil and Environmental Engineering, 5 year UG SEDS (pending graduation), 6 year UG SEDS, 6 year UG SEDS (pending graduation)	Civil and Environmental Engineering		
33	CEE 300	Structural Design - Concrete	3	6	CEE 203 Structural Analysis (5500) (D and above)			3 year UG SEDS Civil and Environmental Engineering, 5 year UG SEDS (pending graduation), 6 year UG SEDS, 6 year UG SEDS (pending graduation)	Civil and Environmental Engineering		
34	CEE 302	Geotechnical Engineering	3	6				3 year UG SEDS Civil and Environmental Engineering	Civil and Environmental Engineering		
35	CEE 304	Fluid Mechanics	3	6				3 year UG SEDS Civil and Environmental Engineering	Civil and Environmental Engineering		
36	CEE 306	Civil Engineering Materials	3	6	ENG 102 Engineering Materials I (4708) (D and above)			3 year UG SEDS Civil and Environmental Engineering	Civil and Environmental Engineering		
37	CEE 401	Construction Technology and Management	3	6	CEE 306 Civil Engineering Materials (5897) (D and above)			4 year UG SEDS Civil and Environmental Engineering	Civil and Environmental Engineering		
38	CEE 450	Behavior and Design of Structural System	3	6	CEE 300 Structural Design - Concrete (5895) (D and above) AND CEE 301 Structural Design - Steel (6157) (D and above)			4 year UG SEDS Civil and Environmental Engineering, 5 year UG SEDS (pending graduation), 6 year UG SEDS, 6 year UG SEDS (pending graduation)	Civil and Environmental Engineering		
39	CEE 460	Water Supply and Distribution Management	3	6	CEE 305 Hydraulics and Hydrology (6177) (D and above)			4 year UG SEDS Civil and Environmental Engineering	Civil and Environmental Engineering		

40	CEE 462	Pavement Design and Performance	3	6	CEE 306 Civil Engineering Materials (5897) (D and above) AND CEE 303 Geotechnical Design (6158) (D and above)			4 year UG SEDS Civil and Environmental Engineering	1 year UG SEDS Civil and Environmental Engineering, 2 year UG SEDS Civil and Environmental Engineering, 3 year UG SEDS Civil and Environmental Engineering, 5 year UG SEDS Civil and Environmental Engineering		
41	CEE 465	Structure and Properties of Concrete Materials	3	6	CEE 306 Civil Engineering Materials (5897) (D and above)			4 year UG SEDS Civil and Environmental Engineering, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 6 year UG SEDS, 6 year UG SEDS (pending graduation)	Civil and Environmental Engineering		
42	CEE 467	Building Information Modelling for Geotechnical Engineering	3	6	CEE 303 Geotechnical Design (6158) (D and above)			4 year UG SEDS Civil and Environmental Engineering, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 6 year UG SEDS, 6 year UG SEDS (pending graduation)			
43	DCEE 700-0	Thesis Research	0	0				Civil Engineering			
44	DCEE 750	Finite Element Methods	4	8				1 year PhD SEDS Civil Engineering	SEDS		
45	DCEE 757	Advanced Environmental Chemistry	4	8				1 year PhD SEDS Civil Engineering	SEDS		
46	DCEE 760	Advanced Foundation Engineering	4	8				Civil Engineering			
47	DCEE 761	Advanced Soil Mechanics	4	8				1 year PhD SEDS Civil Engineering	SEDS		
48	DCEE 772	Engineering Management and Engineering Economy	4	8				Civil Engineering			

49	E MEM 507	Project Management	3	6				1 year Gr SEDS Engineering Management	2 year Gr SEDS Engineering Management	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	
50	E MEM 523	Supply Chain Management	3	6				2 year Gr SEDS Engineering Management	1 year Gr SEDS Engineering Management	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	

51	EMEM 533	Engineering Management and Engineering Economy	3	6				1 year Gr SEDS Engineering Management	2 year Gr SEDS Engineering Management	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics
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52	E MEM 535	Managing Product and Service Development	3	6				2 year Gr SEDS Engineering Management	1 year Gr SEDS Engineering Management	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics
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53	EMEM 537	Engineering Decision Tools	3	6				2 year Gr SEDS Engineering Management	1 year Gr SEDS Engineering Management	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics
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54	EMEM 538	Knowledge and Innovation Management	3	6				1 year Gr SEDS Engineering Management	2 year Gr SEDS Engineering Management	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics
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55	EMEM 539	Big Data and Information Management	3	6				1 year PhD SEDS Civil Engineering, 2 year Gr SEDS Engineering Management	1 year Gr SEDS Engineering Management	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	
56	EMEM 549	Capstone Project I	3	6				2 year Gr SEDS Engineering Management	1 year Gr SEDS Engineering Management		
57	MCEE 601	Master Thesis I	12	24	MCEE 600 Research Seminar (4692) (P)			2 year Gr SEDS Civil and Environmental Engineering			

58	MCEE 603	Finite Element Methods	3	6				1 year Gr SEDS Civil and Environmental Engineering	1 year Gr SEDS Mechanical and Aerospace Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	
59	MCEE 604	Advanced Soil Mechanics	3	6				1 year Gr SEDS Civil and Environmental Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	SMG	

60	MCEE 605	Advanced Environmental Chemistry	3	6				1 year Gr SEDS Civil and Environmental Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	SMG		
61	MCEE 708	Advanced Foundation Engineering	3	6				2 year Gr SEDS Civil and Environmental Engineering				
Computer Science												
62	CSCI 111	Web Programming and Problem Solving	3	6				CSCI 101 Introduction to Computational Sciences (147) (D and above) OR CSCI 115 Programming Fundamentals (5257) (D and above) OR CSCI 151 Programming for Scientists and Engineers (192) (D and above) OR ENG 101 Programming for Engineers (4517) (D and above)	SSH			

63	CSCI 115	Programming Fundamentals	4	8			CSCI 101 Introduction to Computational Sciences (147) (D and above) OR CSCI 111 Web Programming and Problem Solving (110) (D and above) OR CSCI 151 Programming for Scientists and Engineers (192) (D and above) OR ENG 101 Programming for Engineers (4517) (D and above)	Biological Sciences, Chemistry, Mathematics, SoM	SSH		
64	CSCI 151	Programming for Scientists and Engineers	4	8			CSCI 111 Web Programming and Problem Solving (110) (D and above) OR CSCI 115 Programming Fundamentals (5257) (D and above) OR ENG 101 Programming for Engineers (4517) (B- and above)	Computer Science, Robotics Engineering, Robotics and Mechatronics	1 year UG SSH Physics, Undeclared SEDS	SEDS, SMG, SSH	
65	CSCI 231	Computer Systems and Organization	3	6	CSCI 151 Programming for Scientists and Engineers (192) (C- and above) OR ENG 100 Introduction to Engineering (4518) (B- and above)			Computer Science			
66	CSCI 235	Programming Languages	4	8	CSCI 152 Performance and Data Structures (489) (C- and above)			Computer Science			
67	CSCI 281	Human-Computer Interaction	3	6	CSCI 152 Performance and Data Structures (489) (C- and above)			Computer Science			

68	CSCI 299	Internship I	3	6				Instructor's Permission Required. Registration through Add Course form only!			
69	CSCI 325	Introduction to Parallel Systems and Graphics Processing Unit Programming	3	6	CSCI 332 Operating Systems (490) (C- and above)			Computer Science			
70	CSCI 341	Database Systems	3	6	CSCI 152 Performance and Data Structures (489) (C- and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science	1 year UG SEDS Computer Science, 2 year UG SEDS Computer Science		
71	CSCI 344	Data Mining and Decision Support	3	6	CSCI 341 Database Systems (195) (C- and above) AND MATH 273 Linear Algebra with Applications (84) (C- and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science	1 year UG SEDS Computer Science, 2 year UG SEDS Computer Science		
72	CSCI 355	Compiler Construction	3	6	CSCI 235 Programming Languages (638) (C and above) AND CSCI 272 Formal Languages (4689) (C and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science	1 year UG SEDS Computer Science, 2 year UG SEDS Computer Science		
73	CSCI 361	Software Engineering	3	6	CSCI 152 Performance and Data Structures (489) (C- and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science	1 year UG SEDS Computer Science, 2 year UG SEDS Computer Science		
74	CSCI 390	Artificial Intelligence	3	6	CSCI 152 Performance and Data Structures (489) (C- and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science	1 year UG SEDS Computer Science, 2 year UG SEDS Computer Science		
75	CSCI 399	Internship II	3	6				Instructor's Permission Required. Registration through Add Course form only!			
76	CSCI 399F	Internship II - F	6	12				Instructor's Permission Required. Registration through Add Course form only!			
77	CSCI 408	Senior Project I	3	6				4 year UG SEDS Computer Science			

78	CSCI 434	Information Security	3	6		CSCI 333 Computer Networks (1145) (D and above)		3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science	1 year UG SEDS Computer Science, 2 year UG SEDS Computer Science		
79	CSCI 437	Internet of Things: Technologies and Applications	3	6	CSCI 333 Computer Networks (1145) (C- and above) AND ROBT 206 Microcontrollers with Lab (476) (C- and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science	1 year UG SEDS Computer Science, 2 year UG SEDS Computer Science		
80	CSCI 471	Complexity and Computability	3	6	MATH 251 Discrete Mathematics (85) (C- and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science	1 year UG SEDS Computer Science, 2 year UG SEDS Computer Science		
81	CSCI 494	Deep Learning	3	6	CSCI 390 Artificial Intelligence (643) (C and above) AND MATH 273 Linear Algebra with Applications (84) (C and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science	1 year UG SEDS Computer Science, 2 year UG SEDS Computer Science		
82	CSCI 501	Software Principles and Practice	3	6				Computer Science, Robotics	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering	SSH	

83	CSCI 511	Theory of Computation	3	6				Computer Science, Data Science	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	SSH	
84	CSCI 515	Modeling and Simulation for Computer Science	3	6				Computer Science, Data Science	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	SSH	
85	CSCI 535	Wireless Communication and Networks	3	6				Computer Science, Data Science			
86	CSCI 585	Computer Vision	3	6				Computer Science, Data Science	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	SSH	

87	CSCI 594	Deep Learning	3	6				Computer Science, Data Science	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics		
88	CSCI 693	Thesis Proposal	3	6	SEDS 591 Research Methods (3184) (C- and above)			2 year Gr SEDS Computer Science			
89	CSCI 700-0	Thesis Research	0	0				Computer Science			
90	CSCI 701	Advanced Software Principles and Practice	4	8				Computer Science	Robotics Engineering	SSH	
91	CSCI 711	Advanced Theory of Computation	4	8				Computer Science	Robotics Engineering	SSH	
92	CSCI 735	Advanced Wireless Communication and Networks	4	8				Computer Science	Robotics Engineering	SSH	
93	CSCI 785	Advanced Computer Vision	4	8				Computer Science	Robotics Engineering	SSH	
94	CSCI 794	Advanced Deep Learning	4	8				Computer Science	Robotics Engineering	SSH	
95	DS 501	Fundamentals of Data Science	3	6				Data Science			
96	DS 502	Probability and Statistics for Data Science	3	6				Data Science	Computer Science		
97	DS 507	Database Management Systems	3	6				Data Science	Computer Science		
98	DS 551	Process and Project Management	3	6				Data Science	Computer Science		
99	DS 552	Data-Driven Innovation	3	6				Data Science	Computer Science		
100	DS 693	Thesis Proposal	3	6	SEDS 591 Research Methods (3184) (C- and above)			2 year Gr SEDS Data Science			
101	SEDS 503	Laboratory Practicum	3	6	SEDS 502 Teaching Practicum (2824) (P)			Computer Science, Data Science, Robotics			

102	SEDS 591	Research Methods	3	6				Computer Science, Data Science, Robotics		
Electrical and Computer Engineering										
103	DELCE 700-0	Thesis Research	0	0				Electrical Engineering		
104	DELCE 753	Stochastic Processes	4	8				Electrical Engineering	Science, Engineering and Technology	SEDS
105	DELCE 760	Advanced System Modelling and Control	4	8				Electrical Engineering	Science, Engineering and Technology	
106	DELCE 761	Advanced Data Structures and Algorithms	4	8				Electrical Engineering	Science, Engineering and Technology	SEDS
107	ELCE 200	Introduction to Electrical Circuits	3	6	MATH 162 Calculus II (170) (C- and above) AND PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above)			2 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering	
108	ELCE 203	Signals and Systems	3	6	MATH 162 Calculus II (170) (C- and above) AND PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above)			2 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering	
109	ELCE 203L	Signals and Systems Laboratory	1	2		ELCE 203 Signals and Systems (4993) (D and above)		2 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering	
110	ELCE 204	Solid State Devices	3	6	ENG 103 Engineering Materials II (4818) (C- and above)	ELCE 204L Solid State Devices Laboratory (7769) (D and above)		3 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering	
111	ELCE 205	Discrete Mathematics	3	6	MATH 162 Calculus II (170) (C- and above)			2 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering	
112	ELCE 301	Electronic Circuits	3	6	ELCE 201 Circuit Theory (5507) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering	
113	ELCE 301L	Electronic Circuits Laboratory	1	2	ELCE 201L Circuit Theory Laboratory (6179) (C- and above)	ELCE 301 Electronic Circuits (5918) (C- and above)		3 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering	

114	ELCE 304	Computer Networks	3	6	ENG 101 Programming for Engineers (4517) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
115	ELCE 304L	Computer Networks Laboratory	1	2		ELCE 304 Computer Networks (5920) (D and above)		3 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
116	ELCE 306	Linear Control Theory	3	6	ELCE 203 Signals and Systems (4993) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
117	ELCE 307	Digital Signal Processing	3	6	ELCE 203 Signals and Systems (4993) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
118	ELCE 350	Electromagnetics I	3	6	PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above) AND ENG 200 Engineering Mathematics III (Differential Equations and Linear Algebra) (5009) (C- and above) AND ELCE 200 Introduction to Electrical Circuits (4991) (C- and above)			4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
119	ELCE 452	Renewable Energy and Electric Vehicles	3	6	ELCE 200 Introduction to Electrical Circuits (4991) (C- and above)			4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
120	ELCE 455	Machine Learning with Python	3	6	ENG 101 Programming for Engineers (4517) (C- and above) OR CSCI 151 Programming for Scientists and Engineers (192) (C- and above)			4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
121	ELCE 461	Industrial Automation	3	6	ELCE 202 Digital Logic Design (4992) (C- and above)			4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		

122	ELCE 462	Wireless Networks	3	6	ENG 201 Applied Probability and Statistics (5505) (C- and above) AND (ELCE 308 Communication Systems (5922) (C- and above) OR ELCE 304 Computer Networks (5920) (C- and above))			4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
123	ELCE 463	Network Science: Methods and Applications	3	6	ENG 101 Programming for Engineers (4517) (C- and above) AND MATH 162 Calculus II (170) (C- and above) AND ENG 200 Engineering Mathematics III (Differential Equations and Linear Algebra) (5009) (C- and above)			4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
124	ELCE 465	PCB Design and Manufacturing	3	6				4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
125	ELCE 466	RF and Microwave Circuits	3	6				4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
126	MECE 601	Master Thesis I	12	24				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering		
127	MECE 603	Advanced Data Structures and Algorithms	3	6				1 year Gr SEDS Electrical and Computer Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics		

128	MECE 605	Statistics and Probability for Electrical and Computer Engineers	3	6				1 year Gr SEDS Electrical and Computer Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics		
129	MECE 606	Embedded Systems and Applications	3	6				1 year Gr SEDS Electrical and Computer Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics		
130	MECE 724	System Modelling and Control	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering		

131	MECE 726	Modern Semiconductor Devices and Systems	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	
132	MECE 727	Biosensors	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering		
133	MECE 728	Renewable and Sustainable Energy	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering		
Mechanical and Aerospace Engineering											
134	DMAE 700-0	Thesis Research	0	0				Mechanical Engineering			
135	DMAE 701	Advanced Applied Mathematics	4	8				Mechanical Engineering	SEDS		
136	DMAE 751	Modern Control Engineering	4	8				Mechanical Engineering	SEDS		
137	DMAE 763	Computational Fluid Structure Interaction	4	8				Mechanical Engineering	SEDS		
138	DMAE 765	Advanced Manufacturing Processes and Strategies	4	8				Mechanical Engineering			

139	ENG 100	Introduction to Engineering	3	6				1 year UG SEDS Chemical and Materials Engineering, 1 year UG SEDS Civil and Environmental Engineering, 1 year UG SEDS Electrical and Computer Engineering, 1 year UG SEDS Mechanical and Aerospace Engineering, Undeclared SEDS	Chemical and Materials Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Mechanical and Aerospace Engineering, SMG		
140	ENG 101	Programming for Engineers	3	6			CSCI 151 Programming for Scientists and Engineers (192) (F) OR CSCI 111 Web Programming and Problem Solving (110) (F) OR CSCI 115 Programming Fundamentals (5257) (F) OR CSCI 152 Performance and Data Structures (489) (F) OR CSCI 408 Senior Project I (1481) (F) OR CSCI 409 Senior Project II (1483) (F)	1 year UG SEDS Chemical and Materials Engineering, 1 year UG SEDS Civil and Environmental Engineering, 1 year UG SEDS Electrical and Computer Engineering, 1 year UG SEDS Mechanical and Aerospace Engineering, 1 year UG SEDS Undeclared	SEDS, SMG		
141	ENG 200	Engineering Mathematics III (Differential Equations and Linear Algebra)	3	6	MATH 162 Calculus II (170) (C and above)			2 year UG SEDS Chemical and Materials Engineering, 2 year UG SEDS Civil and Environmental Engineering, 2 year UG SEDS Electrical and Computer Engineering, 2 year UG SEDS Mechanical and Aerospace Engineering	3 year UG SEDS Chemical and Materials Engineering, 3 year UG SEDS Civil and Environmental Engineering, 3 year UG SEDS Electrical and Computer Engineering, 3 year UG SEDS Mechanical and Aerospace Engineering	Chemical and Materials Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Mechanical and Aerospace Engineering, SMG	

142	ENG 400	Capstone Project	3	6				4 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Civil and Environmental Engineering, 4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering	5 year UG SEDS Chemical and Materials Engineering, 5 year UG SEDS Civil and Environmental Engineering		
143	MAE 201	Computer Aided Design	3	6				4 year UG SEDS Mechanical and Aerospace Engineering			
144	MAE 300	Fluid Mechanics I	3	6	PHYS 161 Physics I for Scientists and Engineers with Laboratory (116) (D and above)			3 year UG SEDS Mechanical and Aerospace Engineering	Mechanical and Aerospace Engineering		
145	MAE 301	Engineering Thermodynamics	3	6				3 year UG SEDS Mechanical and Aerospace Engineering	Mechanical and Aerospace Engineering		
146	MAE 303	Control Systems	3	6				3 year UG SEDS Mechanical and Aerospace Engineering	Mechanical and Aerospace Engineering		
147	MAE 307	Engineering Dynamics II	3	6	MAE 206 Engineering Dynamics I (5535) (D and above)			3 year UG SEDS Mechanical and Aerospace Engineering	Mechanical and Aerospace Engineering		
148	MAE 400	Heat Transfer	3	6	MAE 300 Fluid Mechanics I (5926) (D and above) AND MAE 301 Engineering Thermodynamics (5927) (D and above)			4 year UG SEDS Mechanical and Aerospace Engineering	Mechanical and Aerospace Engineering		
149	MAE 401	Mechanical Systems Design	3	6	MAE 302 Machine Elements Design (5928) (D and above)			4 year UG SEDS Mechanical and Aerospace Engineering	Mechanical and Aerospace Engineering		
150	MAE 450	Additive Manufacturing	3	6	MAE 205 Material and Manufacturing I (5534) (D and above)			4 year UG SEDS Mechanical and Aerospace Engineering, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 6 year UG SEDS, 6 year UG SEDS (pending graduation)	5 year UG SEDS Mechanical and Aerospace Engineering	3 year UG SEDS Mechanical and Aerospace Engineering	
151	MAE 453	Fire Engineering	3	6	MAE 305 Fluid Mechanics II (6173) (D and above) AND MAE 301 Engineering Thermodynamics (5927) (D and above)			4 year UG SEDS Mechanical and Aerospace Engineering	Mechanical and Aerospace Engineering		

152	MAE 454	Aerodynamics	3	6	MAE 300 Fluid Mechanics I (5926) (D and above)			4 year UG SEDS Mechanical and Aerospace Engineering, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 6 year UG SEDS, 6 year UG SEDS (pending graduation)	5 year UG SEDS Mechanical and Aerospace Engineering		
153	MAE 455	Flight Performance and Mechanics	3	6	MAE 454 Aerodynamics (6576) (D and above) OR MAE 305 Fluid Mechanics II (6173) (D and above)			4 year UG SEDS Mechanical and Aerospace Engineering, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 6 year UG SEDS, 6 year UG SEDS (pending graduation)	Mechanical and Aerospace Engineering		
154	MAE 462	Multiphase Systems	3	6	MAE 300 Fluid Mechanics I (5926) (D and above) AND MAE 305 Fluid Mechanics II (6173) (D and above)			4 year UG SEDS Mechanical and Aerospace Engineering, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 6 year UG SEDS, 6 year UG SEDS (pending graduation)	Mechanical and Aerospace Engineering		
155	MMAE 600	Research Seminar	3	6				1 year Gr SEDS Mechanical and Aerospace Engineering	2 year Gr SEDS Mechanical and Aerospace Engineering		
156	MMAE 601	Master Thesis I	12	24	MMAE 600 Research Seminar (4703) (P)			2 year Gr SEDS Mechanical and Aerospace Engineering			
157	MMAE 603	Modern Control Engineering	3	6				1 year Gr SEDS Mechanical and Aerospace Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	SMG	

158	MMAE 605	Advanced Manufacturing Processes and Strategies	3	6				1 year Gr SEDS Mechanical and Aerospace Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	SMG		
159	MMAE 702	Sustainable Vehicle Transportation Systems	3	6				2 year Gr SEDS Mechanical and Aerospace Engineering	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Robotics	SMG		
160	MMAE 713	Computational Fluid Structure Interaction	3	6				2 year Gr SEDS Mechanical and Aerospace Engineering				
Robotics and Mechatronics												
161	ROBT 201	Mechanics: Statics and Dynamics	3	6	MATH 162 Calculus II (170) (C- and above) AND (PHYS 161 Physics I for Scientists and Engineers with Laboratory (116) (C- and above) OR PHYS 171 Physics I for Physics Majors with Laboratory (1401) (C- and above))			2 year UG SMG, Robotics Engineering, Robotics and Mechatronics	Biological Sciences, Chemistry, Mathematics, SoM			

162	ROBT 203	Electrical and Electronic Circuits I with Lab	4	8	MATH 162 Calculus II (170) (C- and above) AND (PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above) OR PHYS 172 Physics II for Physics Majors with Laboratory (1402) (C- and above) OR (PHYS 141 Physics I for non-majors with Lab (1437) (C- and above) AND PHYS 142 Physics II for non-majors with Lab (1438) (C- and above)))			Robotics Engineering, Robotics and Mechatronics	Biological Sciences, Chemistry, Mathematics, SoM		
163	ROBT 205	Signals and Sensing with Lab	4	8	MATH 162 Calculus II (170) (C- and above) AND (PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above) OR PHYS 172 Physics II for Physics Majors with Laboratory (1402) (C- and above))			Robotics Engineering, Robotics and Mechatronics	Biological Sciences, Chemistry, Mathematics, SoM		
164	ROBT 301	Mechanical Design I with CAD Laboratory	4	8	ROBT 201 Mechanics: Statics and Dynamics (475) (C- and above)			Robotics Engineering, Robotics and Mechatronics	Biological Sciences, Chemistry, Mathematics, SoM		
165	ROBT 303	Linear Control Theory with Lab	4	8	ROBT 202 System Dynamics and Modeling (68) (C- and above) AND MATH 274 Introduction to Differential Equations (484) (C- and above)			Robotics Engineering, Robotics and Mechatronics	Biological Sciences, Chemistry, Mathematics, SoM		
166	ROBT 308	Industrial Automation	3	6				Robotics Engineering, Robotics and Mechatronics	Physics, Undeclared SEDS		
167	ROBT 310	Image Processing	3	6	MATH 162 Calculus II (170) (C- and above) AND MATH 273 Linear Algebra with Applications (84) (C- and above)			Robotics Engineering, Robotics and Mechatronics	Physics, Undeclared SEDS		

168	ROBT 403	Robotics II: Control, Modeling and Learning with Laboratory	4	8	ROBT 303 Linear Control Theory with Lab (623) (C and above) AND ROBT 312 Robotics I: Kinematics and Dynamics (5263) (C and above)			Robotics Engineering, Robotics and Mechatronics	Physics, Undeclared SEDS		
169	ROBT 407	Statistical Methods and Machine Learning	3	6	MATH 273 Linear Algebra with Applications (84) (C and above) AND MATH 321 Probability (482) (C and above) AND CSCI 152 Performance and Data Structures (489) (C and above)			Robotics Engineering, Robotics and Mechatronics	Physics, Undeclared SEDS		
170	ROBT 414	Human-Robot Interaction	3	6	CSCI 152 Performance and Data Structures (489) (C and above)			Robotics Engineering, Robotics and Mechatronics	Physics, Undeclared SEDS		
171	ROBT 501	Robot Manipulation and Mobility	3	6				Robotics	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering		
172	ROBT 503	Dynamic Systems and Control	3	6				Robotics	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering		

173	ROBT 611	Industrial Robotics	3	6	ROBT 501 Robot Manipulation and Mobility (2263) (C- and above) AND CSCI 501 Software Principles and Practice (2408) (C- and above)			Computer Science, Robotics	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering	Applied Mathematics, Physics	
174	ROBT 613	Brain-Machine Interfaces	3	6				Robotics	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering		
175	ROBT 615	Optimal Control and Planning	3	6	ROBT 501 Robot Manipulation and Mobility (2263) (C- and above) AND ROBT 503 Dynamic Systems and Control (2264) (C- and above)			Robotics	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering		

176	ROBT 691	Thesis Proposal	6	12				Robotics	Biomedical Engineering, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering		
177	ROBT 700-0	Thesis Research	0	0				Robotics Engineering	Science, Engineering and Technology		
178	ROBT 701	Advanced Robot Manipulation and Mobility	4	8				Robotics Engineering	Science, Engineering and Technology		
179	ROBT 703	Advanced Optimal Control and Planning	4	8				Robotics Engineering	Science, Engineering and Technology		
180	ROBT 709	Advanced Robot Dynamics and Control	4	8				Robotics Engineering	Science, Engineering and Technology		
School of Engineering											
181	DENG 700-0	Thesis Research	0	0				Science, Engineering and Technology	SEDS		

182	DENG 782	Research Methods and Ethics	3	6			1 year PhD SEDS Chemical Engineering, 1 year PhD SEDS Civil Engineering, 1 year PhD SEDS Computer Science, 1 year PhD SEDS Electrical Engineering, 1 year PhD SEDS Mechanical Engineering, 1 year PhD SEDS Robotics Engineering, 1 year PhD SEDS Science, Engineering and Technology	2 year PhD SEDS Chemical Engineering, 2 year PhD SEDS Civil Engineering, 2 year PhD SEDS Computer Science, 2 year PhD SEDS Electrical Engineering, 2 year PhD SEDS Mechanical Engineering, 2 year PhD SEDS Robotics Engineering, 2 year PhD SEDS Science, Engineering and Technology	3 year PhD SEDS Chemical Engineering, 3 year PhD SEDS Civil Engineering, 3 year PhD SEDS Computer Science, 3 year PhD SEDS Electrical Engineering, 3 year PhD SEDS Mechanical Engineering, 3 year PhD SEDS Robotics Engineering, 3 year PhD SEDS Science, Engineering and Technology, 4 year PhD SEDS Chemical Engineering, 4 year PhD SEDS Civil Engineering, 4 year PhD SEDS Computer Science, 4 year PhD SEDS Electrical Engineering, 4 year PhD SEDS Mechanical Engineering, 4 year PhD SEDS Robotics Engineering, 4 year PhD SEDS Science, Engineering and Technology, 5 year PhD SEDS Science, Engineering and Technology, SMG
183	DENG 789	Doctoral Seminar I	3	6	DENG 785 PhD Proposal Oral Defence (2604) (P)		Science, Engineering and Technology		
184	DENG 790	Doctoral Seminar II	3	6	DENG 789 Doctoral Seminar I (4598) (P)		Science, Engineering and Technology		
185	DENG 791	Doctoral Seminar III	3	6	DENG 790 Doctoral Seminar II (4599) (P)		Science, Engineering and Technology		
186	DENG 792	Doctoral Seminar IV	3	6	DENG 791 Doctoral Seminar III (4600) (P)		Science, Engineering and Technology		

187	DENG 793	Doctoral Seminar V	3	6	DENG 792 Doctoral Seminar IV (4601) (P)			Science, Engineering and Technology		
188	DENG 794	Dissertation Research	12	24	DENG 785 PhD Proposal Oral Defence (2604) (P)			Science, Engineering and Technology		
189	DENG 795	Research at Host University	6	12	DENG 785 PhD Proposal Oral Defence (2604) (P)			Science, Engineering and Technology		
190	DENG 796	Thesis Completion	0	0				Science, Engineering and Technology		
191	DENG 797	Oral Defence of PhD Dissertation	0	0	DENG 785 PhD Proposal Oral Defence (2604) (P) AND DENG 789 Doctoral Seminar I (4598) (P) AND DENG 790 Doctoral Seminar II (4599) (P)			Science, Engineering and Technology		
192	DENG 798	Doctoral Seminar VI	3	6	DENG 793 Doctoral Seminar V (4602) (P)			Science, Engineering and Technology		
193	DENG 799	Doctoral Seminar VII	3	6	DENG 798 Doctoral Seminar VI (4607) (P)			Science, Engineering and Technology		