

Course Requirements and Registration Priorities
School of Engineering and Digital Sciences (PhD), 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	DCHME 700-0	Thesis Research	0	0				Chemical Engineering	Science, Engineering and Technology		
2	DCHME 755	Integrated Computational Materials Engineering	4	8				Chemical Engineering	Science, Engineering and Technology		
3	DCHME 761	Advanced Chemical Reaction Engineering	4	8				Chemical Engineering	Science, Engineering and Technology		
4	DCHME 762	Advanced Materials Processing	4	8				Chemical Engineering	Science, Engineering and Technology		
Civil and Environmental Engineering											
5	DCEE 700-0	Thesis Research	0	0				Civil Engineering			
6	DCEE 750	Finite Element Methods	4	8				1 year PhD SEDS Civil Engineering	SEDS		
7	DCEE 757	Advanced Environmental Chemistry	4	8				1 year PhD SEDS Civil Engineering	SEDS		
8	DCEE 760	Advanced Foundation Engineering	4	8				Civil Engineering			
9	DCEE 761	Advanced Soil Mechanics	4	8				1 year PhD SEDS Civil Engineering	SEDS		
10	DCEE 772	Engineering Management and Engineering Economy	4	8				Civil Engineering			
Computer Science											
11	CSCI 700-0	Thesis Research	0	0				Computer Science			
12	CSCI 701	Advanced Software Principles and Practice	4	8				Computer Science	Robotics Engineering	SSH	
13	CSCI 711	Advanced Theory of Computation	4	8				Computer Science	Robotics Engineering	SSH	
14	CSCI 735	Advanced Wireless Communication and Networks	4	8				Computer Science	Robotics Engineering	SSH	
15	CSCI 785	Advanced Computer Vision	4	8				Computer Science	Robotics Engineering	SSH	
16	CSCI 794	Advanced Deep Learning	4	8				Computer Science	Robotics Engineering	SSH	
Electrical and Computer Engineering											
17	DELCE 700-0	Thesis Research	0	0				Electrical Engineering			

18	DELCE 753	Stochastic Processes	4	8				Electrical Engineering	Science, Engineering and Technology	SEDS	
19	DELCE 760	Advanced System Modelling and Control	4	8				Electrical Engineering	Science, Engineering and Technology		
20	DELCE 761	Advanced Data Structures and Algorithms	4	8				Electrical Engineering	Science, Engineering and Technology	SEDS	
Mechanical and Aerospace Engineering											
21	DMAE 700-0	Thesis Research	0	0				Mechanical Engineering			
22	DMAE 701	Advanced Applied Mathematics	4	8				Mechanical Engineering	SEDS		
23	DMAE 751	Modern Control Engineering	4	8				Mechanical Engineering	SEDS		
24	DMAE 763	Computational Fluid Structure Interaction	4	8				Mechanical Engineering	SEDS		
25	DMAE 765	Advanced Manufacturing Processes and Strategies	4	8				Mechanical Engineering			
Robotics and Mechatronics											
26	ROBT 700-0	Thesis Research	0	0				Robotics Engineering	Science, Engineering and Technology		
27	ROBT 701	Advanced Robot Manipulation and Mobility	4	8				Robotics Engineering	Science, Engineering and Technology		
28	ROBT 703	Advanced Optimal Control and Planning	4	8				Robotics Engineering	Science, Engineering and Technology		
29	ROBT 709	Advanced Robot Dynamics and Control	4	8				Robotics Engineering	Science, Engineering and Technology		
School of Engineering											
30	DENG 700-0	Thesis Research	0	0				Science, Engineering and Technology	SEDS		

31	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 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
32	DENG 789	Doctoral Seminar I	3	6	DENG 785 PhD Proposal Oral Defence (2604) (P)			Science, Engineering and Technology		
33	DENG 790	Doctoral Seminar II	3	6	DENG 789 Doctoral Seminar I (4598) (P)			Science, Engineering and Technology		
34	DENG 791	Doctoral Seminar III	3	6	DENG 790 Doctoral Seminar II (4599) (P)			Science, Engineering and Technology		
35	DENG 792	Doctoral Seminar IV	3	6	DENG 791 Doctoral Seminar III (4600) (P)			Science, Engineering and Technology		
36	DENG 793	Doctoral Seminar V	3	6	DENG 792 Doctoral Seminar IV (4601) (P)			Science, Engineering and Technology		

37	DENG 794	Dissertation Research	12	24	DENG 785 PhD Proposal Oral Defence (2604) (P)			Science, Engineering and Technology			
38	DENG 795	Research at Host University	6	12	DENG 785 PhD Proposal Oral Defence (2604) (P)			Science, Engineering and Technology			
39	DENG 796	Thesis Completion	0	0				Science, Engineering and Technology			
40	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			
41	DENG 798	Doctoral Seminar VI	3	6	DENG 793 Doctoral Seminar V (4602) (P)			Science, Engineering and Technology			
42	DENG 799	Doctoral Seminar VII	3	6	DENG 798 Doctoral Seminar VI (4607) (P)			Science, Engineering and Technology			