

## Course Requirements and Registration Priorities (Master), Fall 2023

#	Abbr	Title	Cr(US)	Cr(ECTS)	PreRequisite	CoRequisite	AntiRequisite	1st priority registration	2nd priority registration	3rd priority registration	4th priority registration
<b>GSB</b>											
<b>GSB</b>											
1	GSBA 620	Financial Accounting	2.5	5				Registration by School admin only!			
2	GSBF 501	Team Building and Business Communications	1	2				Registration by School admin only!			
3	GSBF 511	Applied Data Analytics I	2.5	5				Registration by School admin only!			
4	GSBF 512	Principles of Finance	2.5	5				Registration by School admin only!			
5	GSBF 513	Financial Data Analytics II	2.5	5				Registration by School admin only!			
6	GSBF 515a	Investments I	2.5	5				Registration by School admin only!			
7	GSBF 523	Special Topics in Corporate Finance	2	4				Registration by School admin only!			
8	GSBF 550A	Master's Thesis	5	10				Registration by School admin only!			
9	MBA 01	Consequential Leadership	1	2				Registration by School admin only!			
10	MBA 02	Business Mathematics and Business Computer Application	1	2				Registration by School admin only!			
11	MBA 03	Financial Accounting	2	4				Registration by School admin only!			
12	MBA 04	Probability and Statistics	2	4				Registration by School admin only!			
13	MBA 05	Business Communication	2	4				Registration by School admin only!			
14	MBA 07	Managerial Effectiveness	2	4				Registration by School admin only!			
15	MBA 08	Managerial Economics	2	4				Registration by School admin only!			
16	MBA 10	Foundations of Strategy	2	4							
17	MBA 11	Managerial Accounting	2	4				Registration by School admin only!			
18	MBA 17	Negotiations	2	4				Registration by School admin only!			

19	MBA 19	Distinguished Speaker Series	0	1				Registration by School admin only!			
20	MBA 20	Practicum Project	2.5	5				Registration by School admin only!			
21	MBA 21	Principles of Finance	2	4				Registration by School admin only!			
22	MBAE 16	Project Management	2	4				Registration by School admin only!			
23	MBAE 17	China Business Environment	2	4				Registration by School admin only!			
24	MBAE 18	Consumer Behavior	2	4				Registration by School admin only!			
25	MBAE 20	Marketing Research	2	4							
26	MBAE 22	Business Law	2	4				Registration by School admin only!			
27	MSF 07	Economic Policy in Global Markets	2	4				Registration by School admin only!			
28	MSF 08	Microeconomics for Finance	2.5	5				Registration by School admin only!			
29	MSF 10	Independent Research	2	4				Registration by School admin only!			
<b>GSPP</b>											
<b>Master in Public Administration</b>											
30	MPA 602	Public Administration in Theory and Practice	4	8				1 year GSPP Public Administration			
31	MPA 603	Economic Applications for Public Managers	4	8				1 year GSPP Public Administration			
32	MPA 605	Research Methods for Public Managers	4	8				1 year GSPP Public Administration			
33	MPA 609	Human Resource Policy and Management	4	8				2 year GSPP Public Administration			
34	MPA 699	Master's Project with Overseas Component	0	0				2 year GSPP Public Administration			

35	MPE 628	Good Governance and Corruption	4	8					Applied Mathematics, Biological Sciences, Biological Sciences and Technologies, Biomedical Engineering, Business Administration, Chemical Engineering, Chemical and Materials Engineering, Chemistry, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Economics, Educational Leadership, Educational Leadership (obsolete), Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Eurasian Studies, Finance, Human Resource Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Mining Engineering, Molecular Medicine, Multilingual Education, Petroleum Engineering, Pharmacology and Toxicology, Physics, Political Science and International Relations, Public Administration, Public Health, Public Policy, Robotics, Sports Medicine and Rehabilitation
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36	MPE 646	Communications for Public Leadership	4	8				2 year GSPP Public Administration	2 year GSPP Public Policy	Applied Mathematics, Biological Sciences, Biological Sciences and Technologies, Biomedical Engineering, Business Administration, Chemical Engineering, Chemical and Materials Engineering, Chemistry, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Economics, Educational Leadership, Educational Leadership (obsolete), Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Eurasian Studies, Finance, Human Resource Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Mining Engineering, Molecular Medicine, Multilingual Education, Petroleum Engineering, Pharmacology and Toxicology, Physics, Political Science and International Relations, Public Administration, Public Health, Public Policy, Robotics, Sports Medicine and Rehabilitation
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37	MPE 671	Game Theory and Public Policy	4	8			2 year GSPP Public Administration	2 year GSPP Public Policy	Applied Mathematics, Biological Sciences, Biological Sciences and Technologies, Biomedical Engineering, Business Administration, Chemical Engineering, Chemical and Materials Engineering, Chemistry, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Economics, Educational Leadership, Educational Leadership (obsolete), Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Eurasian Studies, Finance, Human Resource Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Mining Engineering, Molecular Medicine, Multilingual Education, Petroleum Engineering, Pharmacology and Toxicology, Physics, Political Science and International Relations, Public Administration, Public Health, Public Policy, Robotics, Sports Medicine and Rehabilitation
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38	MPE 673	Development Assistance and Governance	4	8				2 year GSPP Public Administration, 2 year GSPP Public Policy	Applied Mathematics, Biological Sciences, Biological Sciences and Technologies, Biomedical Engineering, Business Administration, Chemical Engineering, Chemical and Materials Engineering, Chemistry, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Economics, Educational Leadership, Educational Leadership (obsolete), Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Eurasian Studies, Finance, Human Resource Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Mining Engineering, Molecular Medicine, Multilingual Education, Petroleum Engineering, Pharmacology and Toxicology, Physics, Political Science and International Relations, Public Administration, Public Health, Public Policy, Robotics, Sports Medicine and Rehabilitation		
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39	MPE 682	Sustainable Development and Environmental Governance	4	8				2 year GSPP Public Administration, 2 year GSPP Public Policy	Applied Mathematics, Biological Sciences, Biological Sciences and Technologies, Biomedical Engineering, Business Administration, Chemical Engineering, Chemical and Materials Engineering, Chemistry, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Economics, Educational Leadership, Educational Leadership (obsolete), Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Eurasian Studies, Finance, Human Resource Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Mining Engineering, Molecular Medicine, Multilingual Education, Petroleum Engineering, Pharmacology and Toxicology, Physics, Political Science and International Relations, Public Administration, Public Health, Public Policy, Robotics, Sports Medicine and Rehabilitation		
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40	MPE 683	Energy Systems and Climate Policy	4	8					Applied Mathematics, Biological Sciences, Biological Sciences and Technologies, Biomedical Engineering, Business Administration, Chemical Engineering, Chemical and Materials Engineering, Chemistry, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Economics, Educational Leadership, Educational Leadership (obsolete), Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Eurasian Studies, Finance, Human Resource Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Mining Engineering, Molecular Medicine, Multilingual Education, Petroleum Engineering, Pharmacology and Toxicology, Physics, Political Science and International Relations, Public Administration, Public Health, Public Policy, Robotics, Sports Medicine and Rehabilitation
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41	MPE 684	Global Energy Policy	4	8				2 year GSPP Public Administration, 2 year GSPP Public Policy	Applied Mathematics, Biological Sciences, Biological Sciences and Technologies, Biomedical Engineering, Business Administration, Chemical Engineering, Chemical and Materials Engineering, Chemistry, Civil Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Economics, Educational Leadership, Educational Leadership (obsolete), Electrical and Computer Engineering, Electrical and Electronic Engineering, Engineering Management, Eurasian Studies, Finance, Human Resource Management, Industrial and Systems Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, Mining Engineering, Molecular Medicine, Multilingual Education, Petroleum Engineering, Pharmacology and Toxicology, Physics, Political Science and International Relations, Public Administration, Public Health, Public Policy, Robotics, Sports Medicine and Rehabilitation		
<b>Master in Public Policy</b>											
42	MPP 601	Microeconomics and Public Policy	4	8				1 year GSPP Public Policy			
43	MPP 611	Statistics for Public Policy	4	8				1 year GSPP Public Policy			
44	MPP 613	Policy Research Design and Methods	4	8				1 year GSPP Public Policy			
45	MPP 621	Public Policy and Analysis	4	8				1 year GSPP Public Policy			
46	MPP 631	Politics and Public Policy	4	8				2 year GSPP Public Policy			

47	MPP 699-0	Policy Analysis Exercise with Overseas Component	0	0	MPP 613 Policy Research Design and Methods (1301) (C- and above)			2 year GSPP Public Policy			
<b>GSE</b>											
<b>MA in Multilingual Education</b>											
48	EDML 601	Introduction to Linguistics	3	6				1 year GSE MA in Multil.Education			
49	EDML 610	Foundations of Multilingual Education	3	6				1 year GSE MA in Multil.Education			
50	EDML 613	The Multilingual School	3	6				2 year GSE MA in Multil.Education			
51	EDML 614	Multilingual curriculum development and assessment	3	6				2 year GSE MA in Multil.Education			
52	EDML 620	Language and Literacy Development	3	6				2 year GSE MA in Multil.Education			
53	EDML 690	Thesis Research I	3	6				2 year GSE MA in Multil.Education			
<b>MSc Educational Leadership HE</b>											
54	EDHE 603	Thesis Seminar 3	3	6				2 year GSE Educ.Leadership			
55	EDHE 625	Fundamentals of Higher Education	3	6				1 year GSE Educ.Leadership			
56	EDHE 627	Student Experience, Learning and Success in Higher Education	3	6				2 year GSE Educ.Leadership			
57	EDHE 629	Globalization and International Higher Education	3	6				2 year GSE Educ.Leadership			
58	EDUC 510	Advanced English for Education Professionals I	3	6				1 year GSE MA in Multil.Education			
59	EDUC 512	English for Thesis Writing I	3	6				2 year GSE MA in Multil.Education			
60	EDUC 535	Academic English I	2	4				1 year GSE Educ.Leadership			
61	EDUC 571	Basic Kazakh	3	6				Education, Multilingual Education			
62	EDUC 572	Kazakh for Professional Purposes	3	6				Education, Multilingual Education			
63	EDUC 581	Basic Kazakh (MSc)	2	4				Educational Leadership			
64	EDUC 582	Kazakh for Professional Purposes (MSc)	2	4				Educational Leadership			

65	EDUC 602	Educational Context and Reform in Kazakhstan	3	6				1 year GSE MA in Multil.Education			
66	EDUC 606	Introduction to Education Research	2	4				1 year GSE Educ.Leadership			
67	EDUC 607	Research Methods 1	3	6				1 year GSE Educ.Leadership, 1 year GSE MA in Multil.Education			
68	EDUC 617	Contextualizing Education Reform in Kazakhstan and Beyond	3	6				1 year GSE Educ.Leadership			
69	EDUC 627	Psychology of Learning	3	6				2 year GSE Educ.Leadership			
<b>MSc Educational Leadership IE</b>											
70	EDIE 603	Thesis Seminar 3	3	6				2 year GSE Educ.Leadership			
71	EDIE 604	Thesis Seminar 4	0	0							
72	EDIE 605	Thesis Submission and Defense	10.5	21							
73	EDIE 625	Fundamentals of Inclusive Education	3	6				1 year GSE Educ.Leadership			
74	EDIE 631	Developing Inclusive Schools for an Inclusive Society	3	6				2 year GSE Educ.Leadership			
<b>MSc Educational Leadership SE</b>											
75	EDSE 603	Thesis Seminar 3	3	6				2 year GSE Educ.Leadership			
76	EDSE 621	Education Policy Analysis and Development	3	6				2 year GSE Educ.Leadership			
77	EDSE 625	Fundamentals of School Education	3	6				1 year GSE Educ.Leadership			
<b>SoM</b>											
<b>MMM</b>											
78	MMMM 501	Molecular Basis of Infection	3	6				1 year Gr SOM Molecular Medicine			
79	MMMM 502	Molecular Basis of Cancer	3	6				1 year Gr SOM Molecular Medicine			
80	MMMM 503	Bioethics in Research: Principles and Practice	3	6				Molecular Medicine			
81	MMMM 504	Molecular Basis of Genetic Disease	3	6				1 year Gr SOM Molecular Medicine			
82	MMMM 603	Recombinant Drugs	3	6				Molecular Medicine			

83	MMMM 605	Developmental Biology	3	6				2 year Gr SOM Molecular Medicine		
84	MMMM 610	Natural Drugs	3	6				1 year Gr SOM Pharmacology and Toxicology, 2 year Gr SOM Molecular Medicine		
<b>MPTOX</b>										
85	MPTX 501	Organ system and common diseases	3	6				1 year Gr SOM Pharmacology and Toxicology		
86	MPTX 502	Cellular Communications	3	6				1 year Gr SOM Pharmacology and Toxicology		
87	MPTX 503	Principles of Pharmacology and Toxicology	3	6		MPTX 501 Organ system and common diseases (5841) (C and above)		1 year Gr SOM Pharmacology and Toxicology		
88	MPTX 505	Drug Discovery I	3	6		MPTX 503 Principles of Pharmacology and Toxicology (5843) (C and above)		1 year Gr SOM Pharmacology and Toxicology		
89	MPTX 506	Systemic Pharmacology II	3	6		MPTX 503 Principles of Pharmacology and Toxicology (5843) (C- and above) AND MPTX 504 Systemic Pharmacology I (5844) (C- and above)		2 year Gr SOM Pharmacology and Toxicology		
90	MPTX 601	Biostatistics and Critical Appraisal	3	6		MPTX 503 Principles of Pharmacology and Toxicology (5843) (C- and above) AND MPTX 505 Drug Discovery I (5845) (C- and above)		2 year Gr SOM Molecular Medicine, 2 year Gr SOM Pharmacology and Toxicology		

91	MPTX 602	Current Topics in Pharmacology and Toxicology	3	6	MPTX 503 Principles of Pharmacology and Toxicology (5843) (C- and above) AND MPTX 505 Drug Discovery I (5845) (C- and above)	MPTX 601 Biostatistics and Critical Appraisal (6342) (C- and above)		2 year Gr SOM Pharmacology and Toxicology			
92	MPTX 603	Introduction to Research Project	6	12	MPTX 503 Principles of Pharmacology and Toxicology (5843) (C- and above) AND MPTX 505 Drug Discovery I (5845) (C- and above)	MPTX 601 Biostatistics and Critical Appraisal (6342) (C- and above)		2 year Gr SOM Pharmacology and Toxicology			
93	MPTX 604E	Scientific Writing	3	6				1 year Gr SOM Pharmacology and Toxicology, 2 year Gr SOM Molecular Medicine			
94	MPTX 605	Natural Therapeutics	3	6							
<b>MSMR</b>											
95	MSMR 501	Musculoskeletal System	3	6				Sports Medicine and Rehabilitation			
96	MSMR 503	Exercise Genetics, Physiology and Endocrinology	3	6				Sports Medicine and Rehabilitation			
97	MSMR 504	Pharmacology in Sports and Rehabilitation	3	6				Sports Medicine and Rehabilitation			
98	MSMR 505	Exercise and Biomechanics	3	6				Sports Medicine and Rehabilitation			
99	MSMR 507	Management and Rehabilitation of Injury	4	8				Sports Medicine and Rehabilitation			
100	MSMR 510	Biostatistics and Epidemiology	3	6				Sports Medicine and Rehabilitation			
101	MSMR 603	Master Research Project	8	16				Sports Medicine and Rehabilitation			
102	MSMR 701	Ethics and Professionalism	3	6				Sports Medicine and Rehabilitation			
<b>Public Health</b>											
103	PUBH 501	Principles of Public Health Problem Solving	3	6				Public Health			

104	PUBH 511	Inferential Biostatistics	3	6				Molecular Medicine, Public Health, Sports Medicine and Rehabilitation			
105	PUBH 521	Principles of Analytical Epidemiology	3	6				1 year Gr SOM Public Health, 2 year Gr SOM Molecular Medicine	1 year Gr SOM Molecular Medicine, 2 year Gr SOM Public Health, Pharmacology and Toxicology, Sports Medicine and Rehabilitation		
106	PUBH 528	Qualitative Research Methods	3	6				Public Health			
107	PUBH 552	Principles of Health Economics and Policy	3	6	PUBH 551 Health Services Management, Health Economic and Health Policy (3696) (C and above)			Public Health			
108	PUBH 561	Graduate Research Seminar I	3	6				Public Health			
109	PUBH 599	Global Nutrition and Sustainability	3	6				1 year Gr SOM Public Health, 2 year Gr SOM Molecular Medicine			
110	PUBH 601	Health Education and Promotion	3	6				Public Health			
111	PUBH 633	Methods in Public Health	3	6				Public Health			
112	PUBH 681	Master's Project Planning	3	6				Public Health			
<b>SMG</b>											
<b>Mining Engineering</b>											
113	MINE 501	Foundations of Mining	3	6				1 year Gr SMG Mining Engineering			
114	MINE 502	Geology for Mining Engineers	3	6				1 year Gr SMG Mining Engineering			
115	MINE 503	Applied Geostatistics	3	6				1 year Gr SMG Mining Engineering			
116	MINE 504	Mine Geomechanics	3	6				1 year Gr SMG Mining Engineering			
117	MINE 505	Advanced Mine Ventilation	3	6				1 year Gr SMG Mining Engineering			
118	MINE 602	Mine Maintenance and Services	3	6	MINE 502 Geology for Mining Engineers (3691) (C- and above)			2 year Gr SMG Mining Engineering			
119	MINE 605	Mechanized Excavation and Tunnelling	3	6				2 year Gr SMG Mining Engineering			

120	MINE 607	Geometallurgy	3	6				2 year Gr SMG Mining Engineering		
121	MINE 690	Thesis I	6	12				2 year Gr SMG Mining Engineering		
<b>Petroleum Engineering</b>										
122	PETE 501	Foundations of Petroleum Engineering	3	6				1 year Gr SMG Petroleum Engineering		
123	PETE 502	Petroleum Geology	3	6				1 year Gr SMG Petroleum Engineering		
124	PETE 503	Fluid Flow Through Porous Media	3	6				1 year Gr SMG Petroleum Engineering		
125	PETE 504	Advanced Formation Evaluation	3	6				1 year Gr SMG Petroleum Engineering		
126	PETE 505	Advanced Drilling Engineering	3	6				1 year Gr SMG Petroleum Engineering		
127	PETE 509	Advanced Well Testing and Evaluation	3	6				2 year Gr SMG (pending graduation), 2 year Gr SMG Petroleum Engineering		
128	PETE 600	Thesis I	6	12				2 year Gr SMG Petroleum Engineering		
129	PETE 601	Petroleum Data Analytics	3	6				2 year Gr SMG Petroleum Engineering		
130	PETE 602	Research Seminar	3	6				2 year Gr SMG Petroleum Engineering		
131	PETE 620	Thesis II	12	24				3 year Gr SMG (pending graduation)		
<b>SSH</b>										
<b>Area Studies</b>										
132	EAS 500	Introduction to Eurasia	4	8				Eurasian Studies	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM	
133	EAS 501	General Methodology	4	8				Eurasian Studies	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM	
134	EAS 503	Thesis I	7.5	15	EAS 500 Introduction to Eurasia (1632) (C- and above) AND EAS 501 General Methodology (1633) (C- and above) AND EAS 502 Disciplinary Methodology (1379) (C- and above)			Instructor's Permission Required. Registration through Add Course form only!		
135	EAS 511	Independent Study in Eurasian Studies	4	8				Eurasian Studies	GSB, GSE, GSPP, SEDS, SMG, SSH	

136	EAS 513	Critical Issues in Eurasian Studies	4	8			Eurasian Studies	GSB, GSE, GSPP, SEDS, SMG, SSH		
137	EAS 514	Topics in Eurasian Social Sciences	4	8			Eurasian Studies	GSB, GSE, GSPP, SEDS, SMG, SSH		
<b>Area Studies, Political Science and International Relations, Sociology and Anthropology</b>										
138	SOC 514/PLS 514/EAS 506	Qualitative Research Methods	4	8			Eurasian Studies	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
<b>Biological Science</b>										
139	BIOL 520	Statistical Methods in Life Sciences	3	6			Biological Sciences and Technologies	SSH	GSB, GSE, GSPP, SEDS	
140	BIOL 550	Structural and Molecular Biology in Health and Disease	3	6			Biological Sciences and Technologies	SSH	GSB, GSE, GSPP, SEDS	
141	BIOL 560	Molecular Biology of Prokaryotic Cells	3	6			Biological Sciences and Technologies	SSH	GSB, GSE, GSPP, SEDS	
142	BIOL 592	Graduate Research Seminar	3	6			Biological Sciences and Technologies	SSH	GSB, GSE, GSPP, SEDS	
143	BIOL 599	Master's Thesis Research	0	0			Biological Sciences, Biological Sciences and Technologies	SSH	GSB, GSE, GSPP, SEDS	
144	BIOL 631	Synthetic Biology	3	6			Biological Sciences and Technologies	SSH	GSB, GSE, GSPP, SEDS	
145	BIOL 632	Drug Discovery and Design	3	6			Biological Sciences and Technologies	SSH	GSB, GSE, GSPP, SEDS	
146	BIOL 634	Advanced Cancer Biology	3	6			Biological Sciences and Technologies	SSH	GSB, GSE, GSPP, SEDS	
147	BIOL 670	Gene Therapy	3	6			Biological Sciences and Technologies	SSH	GSB, GSE, GSPP, SEDS	
148	BIOL 691	Master's Thesis Research Proposal	3	6			2 year Gr SSH Biological Sciences and Technologies, Biological Sciences			
<b>Chemistry</b>										
149	CHEM 510	Principles of Physical Chemistry	3	6			Chemistry	SSH	SEDS, SMG, SoM	
150	CHEM 518	Applied Polymer Science	4	8			Chemistry	SSH	SEDS, SMG, SoM	
151	CHEM 520	Applied Analytical Chemistry	3	6			Chemistry	SSH	SEDS, SMG, SoM	
152	CHEM 522	Analytical Environmental Chemistry	3	6	CHEM 520 Applied Analytical Chemistry (5267) (C and above)		Chemistry	SSH	SEDS, SMG, SoM	



153	CHEM 530	Inorganic Structures and Reaction Mechanisms	3	6				Chemistry	SSH	SEDS, SMG, SoM	
154	CHEM 531	Nanochemistry and Functional Nanomaterials	3	6				Instructor's Permission Required. Registration through Add Course form only!			
155	CHEM 543	Structural Identification of Organic Compounds	3	6				Chemistry	SSH	SEDS, SMG, SoM	
156	CHEM 591	Scientific Methods in Chemistry	3	6				Chemistry	SSH	SEDS, SMG, SoM	
157	CHEM 691	Thesis Proposal	3	6				Chemistry	SSH	SEDS, SMG, SoM	
<b>Communication and Composition</b>											
158	WCS 501	Science Communication	3	6				SEDS, SMG, SSH, SoM			
<b>Communication and Composition, Languages, Literature and Linguistics</b>											
159	WLL 562/WCS 562	Creative Nonfiction	4	8				Eurasian Studies			
<b>Economics</b>											
160	ECON 501	Microeconomics I	4	8				Economics	GSB		
161	ECON 502	Macroeconomics I	4	8				Economics	GSB		
162	ECON 511	Statistics	4	8				Economics			
163	ECON 512	Mathematical Economics	4	8				Economics	GSB		
164	ECON 513	Econometrics II Time Series	4	8	ECON 531 Econometrics (2505) (C- and above)			Economics			
165	ECON 528	Wages and the Labor Market	4	8	ECON 521 Microeconomic Theory II (2506) (C- and above) AND ECON 531 Econometrics (2505) (C- and above)			Economics			
166	ECON 532	Applied Econometrics	4	8				Economics			
167	ECON 533	Econometrics II Panel Data	4	8	ECON 531 Econometrics (2505) (C- and above)			Economics			

168	ECON 589	Thesis I	4	8				Economics		
<b>History, Philosophy and Religious Studies</b>										
169	HST 524	Global Histories	4	8				SSH		
<b>Kazakh Language and Turkic Studies</b>										
170	TUR 575	Advanced Topics in Turkic Studies	4	8						
<b>Mathematics</b>										
171	MATH 510	Measure Theory and Applications	3	6				Applied Mathematics	SEDS, SMG, SSH, SoM	
172	MATH 517	Scientific Modeling and Simulation with Mathematics	3	6				Applied Mathematics	SEDS, SMG, SSH, SoM	
173	MATH 518	Applied Finite Element Analysis	3	6				Applied Mathematics	SEDS, SMG, SSH, SoM	
174	MATH 519	Scientific Computing	3	6				Applied Mathematics	SEDS, SMG, SSH, SoM	
175	MATH 540	Statistical Learning	3	6				Applied Mathematics	SEDS, SMG, SSH, SoM	
176	MATH 541	Data Analysis and Statistical Learning	3	6	MATH 540 Statistical Learning (2340) (B- and above)			Applied Mathematics	SEDS, SMG, SSH, SoM	
177	MATH 542	Statistical Programming	3	6				Applied Mathematics	SEDS, SMG, SSH, SoM	
178	MATH 592	Research Seminar	3	6				Applied Mathematics		
179	MATH 680	Potential Theory and Polynomial Approximation	3	6				Applied Mathematics	SEDS, SMG, SSH, SoM	
<b>Physics</b>										
180	PHYS 505	Classical Mechanics	3	6				Physics	SEDS, SMG, SSH, SoM	
181	PHYS 515	Classical Electrodynamics	3	6				Physics	SEDS, SMG, SSH, SoM	
182	PHYS 530	Solid State Physics	4	8				Physics	SEDS, SMG, SSH, SoM	
183	PHYS 550	Advanced Mathematical Physics	3	6				Physics	SEDS, SMG, SSH, SoM	
184	PHYS 563	General Relativity	3	6				Physics	SEDS, SMG, SSH, SoM	
185	PHYS 591	Research Methods	3	6				Physics	SEDS, SMG, SSH, SoM	
186	PHYS 600	Thesis Research	0	0				Physics		
<b>Political Science and International Relations</b>										

187	PLS 510	Advanced Research I	4	8				Political Science and International Relations	SEDS, SMG, SSH, SoM		
188	PLS 522	Just War Theory	4	8				Political Science and International Relations	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
189	PLS 523	Immigration Theory	4	8				Political Science and International Relations	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
190	PLS 540	Core Seminar in Comparative Politics	4	8				Political Science and International Relations			
191	PLS 541	Advanced Topics in Comparative Politics	4	8				Political Science and International Relations	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
192	PLS 550	Core Seminar in IR	4	8				Political Science and International Relations			
193	PLS 558	International Organization	4	8	PLS 550 Core Seminar in IR (1372) (C- and above)			Political Science and International Relations	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
194	PLS 581	Independent Study in Political Science	4	8				Instructor's Permission Required. Registration through Add Course form only!			
195	PLS 598	MA Thesis I	6	12				Political Science and International Relations			
<b>Sociology and Anthropology</b>											
196	ANT 521	Sport and Construction of Identity	4	8				SSH	GSB, GSE, GSPP, SEDS, SMG, SoM		
197	ANT 585	Postcolonial Theory and Its Application in Eurasia	4	8				SSH	GSB, GSE, GSPP, SEDS, SMG, SoM		
198	SOC 515	Social Problems and Issues in Eurasia	4	8				SSH	GSB, GSE, GSPP, SEDS, SMG, SoM		
<b>SEDS</b>											
<b>Chemical and Materials Engineering</b>											
199	MBME 601	Master Thesis I	12	24				2 year Gr SEDS Biomedical Engineering			
200	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	

201	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	
202	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	
203	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	
204	MCHME 601	Master Thesis I	12	24				2 year Gr SEDS Chemical and Materials Engineering			

205	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	
206	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	
207	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	

208	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	
<b>Civil Engineering</b>											
209	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
210	MSC 601	Technical Communication	3	6				SEDS, SMG			
211	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	

212	MSC 615	Advanced Statistics and Probability	3	6				1 year Gr SEDS Engineering Management			
<b>Civil and Environmental Engineering</b>											
213	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	
214	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	

215	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	
216	EMEM 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	



217	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	
218	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	

219	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	
220	EMEM 549	Capstone Project I	3	6				2 year Gr SEDS Engineering Management	1 year Gr SEDS Engineering Management		
221	MCEE 601	Master Thesis I	12	24	MCEE 600 Research Seminar (4692) (P)			2 year Gr SEDS Civil and Environmental Engineering			

222	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	
223	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	

224	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	
225	MCEE 708	Advanced Foundation Engineering	3	6				2 year Gr SEDS Civil and Environmental Engineering			
<b>Computer Science</b>											
226	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	
227	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	

228	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	
229	CSCI 535	Wireless Communication and Networks	3	6				Computer Science, Data Science			
230	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	
231	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		
232	CSCI 693	Thesis Proposal	3	6	SEDS 591 Research Methods (3184) (C- and above)			2 year Gr SEDS Computer Science			
233	DS 501	Fundamentals of Data Science	3	6				Data Science			

234	DS 502	Probability and Statistics for Data Science	3	6				Data Science	Computer Science		
235	DS 507	Database Management Systems	3	6				Data Science	Computer Science		
236	DS 551	Process and Project Management	3	6				Data Science	Computer Science		
237	DS 552	Data-Driven Innovation	3	6				Data Science	Computer Science		
238	DS 693	Thesis Proposal	3	6	SEDS 591 Research Methods (3184) (C- and above)			2 year Gr SEDS Data Science			
239	SEDS 503	Laboratory Practicum	3	6	SEDS 502 Teaching Practicum (2824) (P)			Computer Science, Data Science, Robotics			
240	SEDS 591	Research Methods	3	6				Computer Science, Data Science, Robotics			
<b>Electrical and Computer Engineering</b>											
241	MECE 601	Master Thesis I	12	24				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering		
242	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		

243	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		
244	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		
245	MECE 724	System Modelling and Control	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering		

246	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	
247	MECE 727	Biosensors	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering		
248	MECE 728	Renewable and Sustainable Energy	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering		
<b>Mechanical and Aerospace Engineering</b>											
249	MMAE 600	Research Seminar	3	6				1 year Gr SEDS Mechanical and Aerospace Engineering	2 year Gr SEDS Mechanical and Aerospace Engineering		
250	MMAE 601	Master Thesis I	12	24	MMAE 600 Research Seminar (4703) (P)			2 year Gr SEDS Mechanical and Aerospace Engineering			



251	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	
252	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	
253	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	
254	MMAE 713	Computational Fluid Structure Interaction	3	6				2 year Gr SEDS Mechanical and Aerospace Engineering			

**Robotics and Mechatronics**

255	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		
256	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		
257	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	

258	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		
259	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		
260	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		