

Course Requirements and Registration Priorities Spring 2023

#	Abbr	Title	Cr(US)	Cr(ECTS)	PreRequisite	CoRequisite	AntiRequisite	1st priority registration	2nd priority registration	3rd priority registration	4th priority registration
CPS											
GSPP											
1	ZEST 061	Basic Economics and Statistics	0	0							
NUFYP											
2	FEAP 020	Foundation English for Academic Purposes 2	0	0							
3	FLDP 095	Leadership 2	0	0							
4	FMAT 041	Foundation Mathematics 2	0	0							
NUZYP											
5	ZCOM 041	Academic Communications for Graduate Studies II	0	0							
6	ZLIN 062	Linear Algebra for Graduate Studies	0	0							
7	ZRDG 031	Academic Reading for Graduate Studies II	0	0							
8	ZWRT 021	Academic Writing for Graduate Studies II	0	0							
GSB											
GSB											
9	BUS 101	Core Course in Business	3	6				2 year UG SOM Medical Sciences, 3 year UG SOM, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)	3 year UG SEDS, 3 year UG SMG, 3 year UG SSH	2 year UG SEDS, 2 year UG SMG, 2 year UG SSH	
10	BUS 420	Business Law	3	6	BUS 101 Core Course in Business (5889) (C- and above)			4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH	2 year UG SEDS, 2 year UG SMG, 2 year UG SSH	
11	FIN 201	Principles of Finance	3	6	BUS 101 Core Course in Business (5889) (B- and above)			4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH	2 year UG SEDS, 2 year UG SMG, 2 year UG SSH	
12	GSBF 513	Financial Data Analytics II	2.5	5				For GSB programs only! Registration by School admin.			
13	GSBF 514	Corporate Finance	2.5	5							
14	GSBF 515b	Investments II	2.5	5	GSBF 515a Investments I (4106) (C- and above)						
15	GSBF 520	Empirical Asset Pricing	2	4				For GSB programs only! Registration by School admin.			
16	MBA 08	Managerial Economics	2	4				For GSB programs only! Registration by School admin.			
17	MBA 09	Marketing Management	2	4				For GSB programs only! Registration by School admin.			
18	MBA 10	Foundations of Strategy	2	4				For GSB programs only! Registration by School admin.			
19	MBA 12	Operations Management	2	4				For GSB programs only! Registration by School admin.			
20	MBA 15	Corporate Finance	2	4				For GSB programs only! Registration by School admin.			
21	MBA 16	Entrepreneurship	2	4				For GSB programs only! Registration by School admin.			
22	MSF 01	Financial Modeling	2.5	5				For GSB programs only! Registration by School admin.			

23	MSF 11	FinTech	2.5	5				For GSB programs only! Registration by School admin.			
GSPP											
Master in Public Administration											
24	MPA 608	Strategic Management and Leadership	4	8				1 year GSPP Public Administration			
25	MPA 610	Program Evaluation	4	8	MPA 602 Public Administration in Theory and Practice (2077) (C- and above) AND MPA 603 Economic Applications for Public Managers (2074) (C- and above) AND MPA 605 Research Methods for Public Managers (2108) (C- and above)			1 year GSPP Public Administration			
26	MPA 699	Master's Project with Overseas Component	0	0				1 year GSPP Public Administration			
27	MPE 600	Internship in Public Policy	4	8	(MPP 601 Microeconomics and Public Policy (1449) (C- and above) AND MPP 602 Macroeconomics and Public Policy (1023) (C- and above) AND MPP 611 Statistics for Public Policy (1450) (C- and above) AND MPP 621 Public Policy and Analysis (1451) (C- and above) AND MPP 641 Public Management and Leadership (1907) (C- and above) AND MPP 603 Data Analytics in Public Policy (6618) (C- and above)) OR (MPA 602 Public Administration in Theory and Practice (2077) (C- and above) AND MPA 603 Economic Applications for Public Managers (2074) (C- and above) AND MPA 605 Research Methods for Public Managers (2108) (C- and above) AND MPA 608 Strategic Management and Leadership (2491) (C- and above) AND MPA 610 Program Evaluation (6617) (C- and above))			2 year GSPP Public Policy			
28	MPE 610	National Identity and Public Policy	4	8				Public Administration	Public Policy	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM	
29	MPE 611	Benefit Cost Analysis	4	8				Public Administration, Public Policy	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
30	MPE 638	Contemporary Security Challenges in Central Asia and Beyond	4	8				Public Administration	Public Policy	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM	
31	MPE 641	Globalisation and Public Policy	4	8			MPE 640 International Political Economy (1307) (C- and above) OR DPE 623 International Political Economy (6338) (C- and above)	Public Administration, Public Policy	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
32	MPE 670	Behavioural Insights and Public Policy	4	8				Public Administration, Public Policy	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
33	MPE 672	The Third Sector: civil society, nonprofit organizations, and voluntary action	4	8				Public Administration, Public Policy	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
34	MPE 673	Development Assistance and Governance	4	8				Public Administration, Public Policy	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
35	MPE 681	Natural Resource Management and Policy	4	8				Public Administration, Public Policy	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
Master in Public Policy											
36	MPP 602	Macroeconomics and Public Policy	4	8				1 year GSPP Public Policy			
37	MPP 603	Data Analytics in Public Policy	4	8	MPP 611 Statistics for Public Policy (1450) (C- and above) AND MPP 601 Microeconomics and Public Policy (1449) (C- and above) AND MPP 621 Public Policy and Analysis (1451) (C- and above) AND MPP 613 Policy Research Design and Methods (1301) (C- and above)			1 year GSPP Public Policy			
38	MPP 641	Public Management and Leadership	4	8				1 year GSPP Public Policy			

39	MPP 699	Policy Analysis Exercise with Overseas Component	8	16	MPP 601 Microeconomics and Public Policy (1449) (C- and above) AND MPP 611 Statistics for Public Policy (1450) (C- and above) AND MPP 613 Policy Research Design and Methods (1301) (C- and above) AND MPP 621 Public Policy and Analysis (1451) (C- and above)			2 year GSPP Public Policy		
40	MPP 699-0	Policy Analysis Exercise with Overseas Component	0	0	MPP 613 Policy Research Design and Methods (1301) (C- and above)			1 year GSPP Public Policy		
PhD in Public Policy										
41	DPP 600	Developing Dissertation Research	0	0				Public Policy		
42	DPP 602	Macroeconomics in Public Sector	4	8				1 year GSPP PhD Public Policy		
43	DPP 613	Research Design (qualitative and quantitative)	4	8				1 year GSPP PhD Public Policy		
44	DPP 615	Law, Governance and Public Policy	4	8				1 year GSPP PhD Public Policy		
45	DPP 631	Politics of Public Policy	4	8				1 year GSPP PhD Public Policy		
46	DPP 689	PhD Qualifying Examinations	0	0				2 year GSPP PhD Public Policy		
47	DPP 689-1	PhD Qualifying Examination: Field Exam	0	0						
48	DPP 690	Thesis Preparation and Writing	66	132	DPP 689 PhD Qualifying Examinations (4830) (P) AND DPP 699 Thesis Design and Written Proposal (4831) (B- and above)			4 year GSPP PhD Public Policy		
49	DPP 690-0	Thesis Preparation and Writing	0	0				3 year GSPP PhD Public Policy, 4 year GSPP PhD Public Policy		
50	DPP 699	Thesis Design and Written Proposal	6	12				2 year GSPP PhD Public Policy		
GSE										
MA in Multilingual Education										
51	EDML 612	Multilingual Society	3	6				1 year GSE MA in Multil.Education		
52	EDML 620	Language and Literacy Development	3	6				2 year GSE MA in Multil.Education		
53	EDML 691	Thesis Research II	6	12				2 year GSE MA in Multil.Education		
MSc Educational Leadership HE										
54	EDHE 604	Thesis Seminar 4	0	0				2 year GSE Educ.Leadership		
55	EDHE 605	Thesis Submission and Defense	10.5	21				2 year GSE Educ.Leadership		
56	EDHE 626	Organization and Governance in Higher Education	3	6				1 year GSE Educ.Leadership		
57	EDHE 628	Higher Education Policy Analysis and Development	3	6				1 year GSE Educ.Leadership		
58	EDUC 507	Academic English III	1.5	3				Registration available only for MSc Yr2 student Albina Kassenova		
59	EDUC 508	Academic English IV	1.5	3				Registration available only for MSc Yr2 students Ilyas Sarsenbayev and Bakhtiyor Ermetov		
60	EDUC 511	Advanced English for Education Professionals II	3	6				1 year GSE MA in Multil.Education		
61	EDUC 513	English for Thesis Writing II	3	6				2 year GSE MA in Multil.Education		
62	EDUC 531	Academic English 2	2	4				1 year GSE Educ.Leadership		
63	EDUC 571	Basic Kazakh	3	6				Education, Multilingual Education		
64	EDUC 581	Basic Kazakh (MSc)	2	4				Educational Leadership		
65	EDUC 585	Education in Kazakhstan for International Students	3	6				Only for GSE international students. Registration by School admin through Add Course form only.		
66	EDUC 591	Academic English Writing for Doctoral Students II	3	6				2 year GSE PhD Education		
67	EDUC 592	Academic English Writing for Doctoral Students III	3	6				4 year GSE PhD Education		

68	EDUC 600	Research Methods II	3	6			1 year GSE MA in Multil.Education			
69	EDUC 608	Research Methods 2	3	6			1 year GSE Educ.Leadership			
70	EDUC 618	Educational Leadership	3	6			1 year GSE Educ.Leadership			
71	EDUC 704	Advanced Methods of Education Research	3	6			1 year GSE PhD Education			
72	EDUC 705	Advanced Methods of Education Research: Qualitative Methods	3	6			1 year GSE PhD Education			
73	EDUC 711	Globalisation and Education	3	6			1 year GSE PhD Education			
74	EDUC 720	Philosophy of Education	3	6			1 year GSE PhD Education			
75	EDUC 728	Exploring the Research Topic 2	0	0			1 year GSE PhD Education			
76	EDUC 730	Preparation for Proposal Defence	0	0			2 year GSE PhD Education			
77	EDUC 740	Doctoral Seminar	3	6			3 year GSE PhD Education			
78	EDUC 750	Dissertation Research	9	18			4 year GSE PhD Education			
79	EDUC 751	Dissertation Research	0	0			3 year GSE PhD Education			
MSc Educational Leadership IE										
80	EDIE 604	Thesis Seminar 4	0	0			2 year GSE Educ.Leadership			
81	EDIE 605	Thesis Submission and Defense	10.5	21			2 year GSE Educ.Leadership			
82	EDIE 626	Global Perspectives on Inclusive Education	3	6			1 year GSE Educ.Leadership			
83	EDIE 628	Inclusive Curriculum and Assessment	3	6			1 year GSE Educ.Leadership			
MSc Educational Leadership SE										
84	EDSE 604	Thesis Seminar 4	0	0			2 year GSE Educ.Leadership			
85	EDSE 605	Thesis Submission and Defense	10.5	21			2 year GSE Educ.Leadership			
86	EDSE 626	Curriculum Development and Implementation	3	6			1 year GSE Educ.Leadership			
87	EDSE 629	Teacher Development and Identity	3	6			1 year GSE Educ.Leadership			
88	EDSE 632	School Improvement and Effectiveness	3	6			1 year GSE Educ.Leadership			
89	EDSE 692	Thesis Seminar III	4.5	9			Registration available only for MSc Yr2 student Kassenova Albina			
90	EDSE 693	Thesis Seminar IV	9	18			2 year GSE Educ.Leadership			
Other										
Other										
91	STUMOB 001	Student Mobility Course	0	0						
SoM										
MMM										
92	MMMM 507	Critical Analysis of the Contemporary Concepts in Molecular Medicine	3	6			SoM			
93	MMMM 508	Molecular Immunology	3	6			SoM			
94	MMMM 509	From the Bench to the Bedside: Drug Development and Clinical Trials	3	6			SoM			
95	MMMM 511	Research Methods in Molecular Biomedicine	3	6			SoM			

96	MMMM 513	Molecular Basis of Neurological Disorders	3	6			SoM		
97	MMMM 690	Master Research Project	15	30			SoM		
MPTOX									
98	MPTX 504	Systemic Pharmacology I	3	6	MPTX 503 Principles of Pharmacology and Toxicology (5843) (C- and above)		SoM		
99	MPTX 507	Applied Toxicology	3	6	MPTX 503 Principles of Pharmacology and Toxicology (5843) (C- and above)		SoM		
100	MPTX 508	Research Methods in Pharmacology	3	6	MPTX 502 Cellular Communications (5842) (C- and above) OR MPTX 503 Principles of Pharmacology and Toxicology (5843) (C- and above)		SoM		
101	MPTX 509	Drug Discovery and Development II	3	6	MPTX 505 Drug Discovery I (5845) (C- and above)		SoM		
102	MPTX 511E	Environmental Toxicology	3	6			SoM		
103	MPTX 701	Research Project and Thesis	15	30	MPTX 601 Biostatistics and Critical Appraisal (6342) (C and above) AND MPTX 603 Introduction to Research Project (6344) (P)		SoM		
MSMR									
104	MSMR 502	Nutrition in Sports and Exercise	3	6			SoM		
105	MSMR 506	Seminar in Sports Medicine	3	6			SoM		
106	MSMR 509	Robots for Rehabilitation	3	6			SoM		
107	MSMR 511	Introduction to Research Project	3	6			SoM		
108	MSMR 514	Adaptive Physical Activity	3	6			SoM		
109	MSMR 515	Nutrition for Life	3	6			SoM		
110	MSMR 601	Psychology of Sports and Rehabilitation	3	6			SoM		
111	MSMR 602	Advances in Sports and Rehabilitation	4	8			SoM		
112	MSMR 702	Master Research Project Thesis	12	24			SoM		
Medical Sciences									
113	NUSM 310	Capstone Project	15	30	NUSM 301 Introduction to Immunology, Microbiology and Genetics (6958) (C- and above) OR NUSM 302 Introduction to Statistics for Evidence-Based Practice (6959) (C- and above) OR NUSM 303 Introduction to Anatomy and Histology (6957) (C- and above)		3 year UG SOM Medical Sciences		
Nursing									
114	NUR 101	Human Anatomy and Physiology I and Lab	4	8			1 year UG SOM Nursing		
115	NUR 102L	Human Anatomy and Physiology II with Lab	4	8			1 year UG SOM Nursing		
116	NUR 122	English-Russian-Kazakh Medical Terminology	2	4			2 year UG SOM Nursing		
117	NUR 204	Nutrition Essentials for Nursing Clinical Practice	2	4			2 year UG SOM Nursing		
118	NUR 212/L	Foundations of Nursing Practice II	2	4			2 year UG SOM Nursing		
119	NUR 213/C	Medical-Surgical Nursing I: Clinical	7	14			2 year UG SOM Nursing		
120	NUR 305	Research Methods for Nursing	3	6			BN students only! Registration by School admin.		

121	NUR 306	Medical-Surgical Nursing: Complex Medical Management for Acute and Chronic Patient	4	8				BN students only! Registration by School admin.			
122	NUR 307	Health Promotion and Disease Prevention in Culturally Diverse Populations	4	8				BN students only! Registration by School admin.			
123	NUR 308	Enhanced Communication in Professional Nursing	4	8				BN students only! Registration by School admin.			
124	NUR 313C	Medical-Surgical Nursing II: Complex Surgical Management and Clinical	7	14				3 year UG SOM Nursing			
125	NUR 314C	Psychiatric Nursing and Clinical	4	8				3 year UG SOM Nursing			
126	NUR 322	Nursing Clinical Informatics	2	4				2 year UG SOM Nursing, 3 year UG SOM Nursing			
127	NUR 402	Principles of Healthcare Administration	4	8				BN students only! Registration by School admin.			
128	NUR 405	Issues and Trends in Nursing	4	8				BN students only! Registration by School admin.			
129	NUR 406.2	Medical-Surgical Nursing: Complex Management	4	8				BN students only! Registration by School admin.			
130	NUR 407	Capstone: Clinical and EBP Quality Improvement Research	4	8				BN students only! Registration by School admin.			
131	NUR 415C	Clinical Transitions	9	18				4 year UG SOM Nursing			
132	NUR 422	Capstone II: Evidence-Based Quality Improvement/Research Project Completion	3	6				4 year UG SOM Nursing			
PHD											
133	PHDBS 701-0	Thesis Research	0	0				Biomedical Sciences		SoM	
134	PHDBS 702	Molecular Basis of Health and Disease	4	8				Biomedical Sciences	Life Sciences	SoM	
135	PHDBS 703	Biomedical Research Analysis and Design of Experimentation	4	8				Biomedical Sciences	Life Sciences	SoM	
136	PHDBS 704	NUSOM seminar (final semester)	4	8				4 year PhD SOM BioMed Sciences			
137	PHDBS 704-0	NUSOM seminar	0	0				Biomedical Sciences		SoM	
138	PHDBS 706	Advanced Biomedical Research Analysis and Design of Experimentation	4	8				Biomedical Sciences		SoM	
139	PHDBS 707	Publication Analysis	4	8				Biomedical Sciences		SoM	
140	PHDBS 708	Writing for Biomedical Sciences	3	6				Biomedical Sciences	Life Sciences	SoM	
141	PHDBS 715	Molecular Basis of Neurological Disorders	3	6				Biomedical Sciences	Life Sciences	SoM	
142	PHDGH 701-0	Thesis Research	0	0				SoM			
143	PHDGH 704-0	NUSOM Seminar in Global Health	0	0				SoM			
144	PHDGH 705	Global Health into Action	3	6				SoM			
145	PHDGH 706	Methods in Global Health Research	3	6				SoM			
146	PHDGH 707	Implementation Science in Global Health	3	6				SoM			
Public Health											
147	PUBH 512	Biostatistical Modeling and Sampling	3	6				SoM			
148	PUBH 522	Advanced Analytical Epidemiology	3	6				SoM			
149	PUBH 551	Health Services Management, Health Economic and Health Policy	3	6				SoM			
150	PUBH 631	Social and Behavioral Sciences in Public Health	3	6				SoM			
151	PUBH 641	Problem Investigations in Environmental Health	3	6				SoM			

152	PUBH 651	Risk Management in Health Care	3	6				SoM			
153	PUBH 652	Applied Methods in Health Services Research	3	6				SoM			
154	PUBH 682	Master's Project Implementation	12	24				SoM			
SMG											
Mining Engineering											
155	MINE 201	Mineral Processing	3	6				2 year UG SMG Mining Engineering, 4 year UG SMG Geology	Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG		
156	MINE 306	Underground Mining Systems and Design	3	6	MINE 302 Geomechanics (5878) (D and above) AND MINE 405 Mine Ventilation (5879) (D and above)			3 year UG SMG Mining Engineering	Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG		
157	MINE 307	Surface Mining System and Design	3	6	MINE 302 Geomechanics (5878) (D and above)			3 year UG SMG Mining Engineering	Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG		
158	MINE 308	Mine Planning	3	6				3 year UG SMG Mining Engineering	Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG		
159	MINE 309	Sustainability and Mining Environment	3	6	SMG 100 Introduction to Natural Resources Extraction (4773) (D and above)			3 year UG SMG Mining Engineering, 4 year UG SMG Geology	Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG		
160	MINE 310	Rock Breakage	3	6	MINE 302 Geomechanics (5878) (D and above)			3 year UG SMG Mining Engineering	Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG		
161	MINE 403	Mine Risk Management	3	6				4 year UG SMG Mining Engineering	Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG		
162	MINE 480	Mine Design Project	3	6	MINE 307 Surface Mining System and Design (6150) (C- and above) OR MINE 306 Underground Mining Systems and Design (6151) (C- and above)			4 year UG SMG Mining Engineering			
163	MINE 490	Research project II	3	6	MINE 489 Research Project I (6419) (P)			4 year UG SMG Mining Engineering			
164	MINE 507	Rock Excavation Methods	3	6				1 year Gr SMG Mining Engineering			
165	MINE 508	Advanced Rock Mechanics	3	6				1 year Gr SMG Mining Engineering			
166	MINE 509	Advanced Surface Mine Design	3	6				1 year Gr SMG Mining Engineering			
167	MINE 510	Advanced Underground Mine Design	3	6				1 year Gr SMG Mining Engineering			
168	MINE 607	Geometallurgy	3	6				2 year Gr SMG Mining 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		
169	MINE 691	Thesis II	15	30	MINE 690 Thesis I (4531) (P)			2 year Gr SMG Mining Engineering			
170	MINE 701	Advanced Mine Geomechanics	4	8				1 year PhD SMG Mining Engineering			
171	MINE 702	Current Research Literature	4	8				1 year PhD SMG Mining Engineering			

172	MINE 703	Advanced Mining Systems	4	8			1 year PhD SMG Mining Engineering	Chemical Engineering, Civil Engineering, Computer Science , Electrical Engineering, Mechanical Engineering, Robotics Engineering, Science, Engineering and Technology		
173	MINE 803	Advanced Geometallurgy	4	8			1 year PhD SMG Mining Engineering			
174	MINE 890-0	Thesis Research	0	0			Mining Engineering, Petroleum Engineering			
Petroleum Engineering										
175	PETE 202	Transport Phenomena	3	6	ENG 200 Engineering Mathematics III (Differential Equations and Linear Algebra) (5009) (C- and above) OR CHEM 101 General Chemistry I (113) (C- and above) OR CHEM 101L General Chemistry I lab (179) (C- and above)		2 year UG SMG Petroleum Engineering, 3 year UG SMG Petroleum Engineering			
176	PETE 203	Drilling Engineering with Laboratories	4	8	PETE 201 Fluid Mechanics and Thermodynamics (5120) (C- and above)		2 year UG SMG Petroleum Engineering, 3 year UG SMG Petroleum Engineering			
177	PETE 204	Reservoir Rock and Fluid Properties with Lab	4	8	PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above)		2 year UG SMG Petroleum Engineering, 4 year UG SMG Geology			
178	PETE 305	Well Test Analysis	3	6	PETE 302 Reservoir Engineering I with Laboratory works (5955) (C- and above)		3 year UG SMG Petroleum Engineering	Petroleum Engineering		
179	PETE 306	Reservoir Engineering II	3	6	PETE 204 Reservoir Rock and Fluid Properties with Lab (5487) (C- and above) OR PETE 302 Reservoir Engineering I with Laboratory works (5955) (C- and above)		3 year UG SMG Petroleum Engineering	Petroleum Engineering		
180	PETE 307	Production Engineering	3	6	PETE 201 Fluid Mechanics and Thermodynamics (5120) (C- and above) OR PETE 302 Reservoir Engineering I with Laboratory works (5955) (C- and above)		3 year UG SMG Petroleum Engineering	Petroleum Engineering		
181	PETE 311	Reservoir Simulation	3	6	PETE 301 Numerical Methods for Petroleum Engineers (5881) (C- and above) AND PETE 302 Reservoir Engineering I with Laboratory works (5955) (C- and above) AND PETE 304 Well Completion and Stimulation (5883) (C- and above)		3 year UG SMG Petroleum Engineering, 4 year UG SMG Petroleum Engineering			
182	PETE 404	Petroleum Geomechanics	3	6	GEOL 101 Fundamentals of Geology (4774) (C- and above) OR GEOL 102 Fundamentals of Geology (4772) (C- and above)		4 year UG SMG Petroleum Engineering			
183	PETE 407	Capstone Design Project II	3	6	PETE 400 Capstone Design Project I (6424) (P)		4 year UG SMG Petroleum Engineering			
184	PETE 421	Advanced Technologies in Drilling	3	6	PETE 203 Drilling Engineering with Laboratories (5486) (C- and above) AND PETE 304 Well Completion and Stimulation (5883) (C- and above)		4 year UG SMG Petroleum Engineering			
185	PETE 506	Advanced Reservoir Simulation	3	6			Petroleum Engineering			
186	PETE 507	Advanced Reservoir Engineering	3	6			Petroleum Engineering			
187	PETE 508	Advanced Production Engineering	3	6			Petroleum Engineering			
188	PETE 606	Advanced Enhanced Oil Recovery	3	6			Petroleum Engineering			
189	PETE 620	Thesis II	12	24			Petroleum Engineering			
190	PETE 702	Current Research Literature	4	8			Petroleum Engineering			
191	PETE 703	Advanced Reservoir Engineering	4	8			Mining Engineering, Petroleum Engineering	Chemical Engineering, Civil Engineering, Computer Science , Electrical Engineering, Mechanical Engineering, Robotics Engineering, Science, Engineering and Technology		

192	PETE 801	Advanced Reservoir Simulation	4	8				Mining Engineering, Petroleum Engineering	Chemical Engineering, Civil Engineering, Computer Science, Electrical Engineering, Mechanical Engineering, Robotics Engineering, Science, Engineering and Technology			
193	PETE 803	Advanced Enhanced Oil Recovery	4	8				Mining Engineering, Petroleum Engineering	Chemical Engineering, Civil Engineering, Computer Science, Electrical Engineering, Mechanical Engineering, Robotics Engineering, Science, Engineering and Technology			
194	PETE 890	Thesis Research	0	0				Petroleum Engineering				
School of Mining and Geosciences												
195	GEOL 101	Fundamentals of Geology	3	6				4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SSH, 4 year UG SSH (pending graduation)				
196	GEOL 204	Sedimentology and stratigraphy	3	6	GEOL 101 Fundamentals of Geology (4774) (D and above) OR GEOL 102 Fundamentals of Geology (4772) (D and above) AND GEOL 202 Geologic Maps and Cross-Sections (5123) (D and above)			2 year UG SMG Geology				
197	GEOL 205	Paleontology	3	6	GEOL 101 Fundamentals of Geology (4774) (D and above) OR GEOL 102 Fundamentals of Geology (4772) (D and above)			2 year UG SMG Geology				
198	GEOL 301	Igneous and metamorphic petrology	3	6	GEOL 101 Fundamentals of Geology (4774) (D and above) OR GEOL 102 Fundamentals of Geology (4772) (D and above)			2 year UG SMG Geology, 3 year UG SMG Geology, 3 year UG SMG Mining Engineering	1 year UG SEDS, 2 year UG SEDS, 3 year UG SEDS, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 5 year UG SEDS, 5 year UG SEDS (pending graduation), 6 year UG SEDS			
199	GEOL 303	Structural Geology and Tectonics	3	6	(GEOL 101 Fundamentals of Geology (4774) (D and above) OR GEOL 102 Fundamentals of Geology (4772) (D and above)) AND GEOL 202 Geologic Maps and Cross-Sections (5123) (D and above)			3 year UG SMG Geology	Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SSH, 3 year UG SEDS, 3 year UG SSH, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SSH, 4 year UG SSH (pending graduation), 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SEDS (pending graduation), 6 year UG SSH, 6 year UG SSH (pending graduation)		
200	GEOL 304	Geophysics	3	6	GEOL 204 Sedimentology and stratigraphy (5475) (D and above)			3 year UG SMG Geology	Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG			
201	GEOL 307	Geographic Information Systems	3	6				3 year UG SMG Geology				
202	GEOL 309	Hydrogeology	3	6				3 year UG SMG Geology, 4 year UG SMG Mining Engineering				
203	GEOL 403	Geostatistics	3	6	MATH 161 Calculus I (118) (C- and above)			4 year UG SMG Geology		4 year UG SEDS, 4 year UG SSH		
204	GEOL 405	Research Project II	3	6	GEOL 404 Research Project I (6423) (C- and above)			4 year UG SMG Geology				

205	GEOL 407	Exploration Geology & Geophysics	3	6	GEOL 101 Fundamentals of Geology (4774) (C- and above)			4 year UG SMG Geology	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SSH, 3 year UG SEDS, 3 year UG SSH, 4 year UG SMG Mining Engineering, 4 year UG SMG Petroleum Engineering, 5 year UG SEDS, 5 year UG SSH (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation)	4 year UG SEDS, 4 year UG SSH (pending graduation), 4 year UG SSH, 4 year UG SSH (pending graduation)	
206	SMG 400	Engineering Economics	3	6	SMG 200/ECON 220 Resource Economics (6197) (C- and above)			4 year UG SMG Geology, 4 year UG SMG Mining Engineering	Geology, Mining Engineering, Petroleum Engineering, Undeclared SMG	SEDS, SSH	
SSH											
Area Studies											
207	EAS 502	Disciplinary Methodology	4	8				Eurasian Studies			
208	EAS 504	Thesis II	12.5	25	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) AND EAS 503 Thesis I (2141) (C- and above)			Eurasian Studies			
209	EAS 511	Independent Study in Eurasian Studies	4	8				Eurasian Studies			
210	EAS 512	Topics in Eurasian Studies	4	8				Instructor's Permission Required. Registration through Add Course form only!			
211	EAS 513	Critical Issues in Eurasian Studies	4	8				Eurasian Studies			
212	EAS 514	Topics in Eurasian Social Sciences	4	8				Eurasian Studies			
213	EAS 702	Elective in Eurasian Humanities	4	8				Instructor's Permission Required. Registration through Add Course form only!			
214	EAS 703	Elective in Eurasian Social Sciences	4	8				Instructor's Permission Required. Registration through Add Course form only!			
215	EAS 704	Elective 2 in Eurasian Humanities	4	8				Instructor's Permission Required. Registration through Add Course form only!			
216	EAS 705	Elective 2 in Social Sciences	4	8				Instructor's Permission Required. Registration through Add Course form only!			
217	EAS 708	Proseminar in Eurasian Humanities	4	8				Instructor's Permission Required. Registration through Add Course form only!			
218	EAS 709	Proseminar in Eurasian Social Sciences	4	8				Instructor's Permission Required. Registration through Add Course form only!			
219	EAS 710	Independent Study in Eurasian Studies	4	8				Instructor's Permission Required. Registration through Add Course form only!			
220	EAS 712	Doctoral Seminar in Eurasian Studies II	4	8				Eurasian Studies			
221	EAS 713	Qualifying Examination	0	0				Eurasian Studies			
222	EAS 800-0	Dissertation Research in Eurasian Studies	0	0				Eurasian Studies			
Biological Science											
223	BIOL 101	Biology for non-Science majors	3	6				BIOL 110 Modern Biology I (1070) (C- and above)	5 year UG SEDS, 5 year UG SSH, 5 year UG SSH (pending graduation), Anthropology, Economics, History, Nursing, Political Science and International Relations, Sociology, Undeclared SSH, World Languages, Literatures and Cultures	Mathematics	SEDS, SMG, SSH, SoM
224	BIOL 110	Modern Biology I	3	6					5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Medical Sciences, Undeclared SSH	Chemistry, Computer Science, Electrical and Computer Engineering, Mathematics, Physics, Robotics Engineering, Robotics and Mechatronics	SEDS, SMG, SSH, SoM
225	BIOL 110L	Modern Biology I Laboratory	1	2				BIOL 110 Modern Biology I (1070) (C and above)	5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Medical Sciences, Undeclared SSH	Chemistry, Computer Science, Electrical and Computer Engineering, Mathematics, Physics, Robotics Engineering, Robotics and Mechatronics	SEDS, SMG, SSH, SoM

226	BIOL 120	Modern Biology II	3	6	BIOL 110 Modern Biology I (1070) (C and above)			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Medical Sciences	Chemistry, Mathematics, Physics	SEDS, SMG, SSH, SoM	
227	BIOL 120L	Modern Biology II Laboratory	1	2	BIOL 110 Modern Biology I (1070) (C and above) OR BIOL 110L Modern Biology I Laboratory (5448) (C and above)	BIOL 120 Modern Biology II (1195) (C and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Medical Sciences	Chemistry, Mathematics, Physics	SEDS, SMG, SSH, SoM	
228	BIOL 230	Human Anatomy and Physiology I	3	6	BIOL 110 Modern Biology I (107) (C and above) OR BIOL 110 Modern Biology I (1070) (C and above)			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Medical Sciences	Chemistry, Mathematics, Physics	SEDS, SMG, SSH, SoM	
229	BIOL 301	Molecular Cell Biology	3	6	BIOL 120 Modern Biology II (1195) (C and above)			3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Medical Sciences	Biological Sciences	SEDS, SMG, SSH, SoM	
230	BIOL 301L	Molecular Cell Biology Laboratory	1	2	BIOL 120 Modern Biology II (1195) (C and above) OR BIOL 120L Modern Biology II Laboratory (5443) (C and above)	BIOL 301 Molecular Cell Biology (5809) (C and above)		3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Medical Sciences	Biological Sciences	SEDS, SMG, SSH, SoM	
231	BIOL 305	Introduction to Microbiology	3	6	(BIOL 120 Modern Biology II (1195) (C and above) AND BIOL 120L Modern Biology II Laboratory (5443) (C and above)) OR BIOL 120 Modern Biology II (1195) (C and above)			3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation)	2 year UG SSH Biological Sciences, Chemistry, Mathematics, Medical Sciences, Physics	SEDS, SMG, SSH, SoM	
232	BIOL 305L	Introduction to Microbiology Laboratory	1	2	BIOL 120 Modern Biology II (1195) (C and above) OR BIOL 120L Modern Biology II Laboratory (5443) (C and above)	BIOL 305 Introduction to Microbiology (5789) (C and above)		3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation)	2 year UG SSH Biological Sciences, Chemistry, Mathematics, Medical Sciences	SEDS, SMG, SSH, SoM	
233	BIOL 310	Immunology	3	6	BIOL 301 Molecular Biology of Cell with Lab (1197) (C and above) OR BIOL 305 Introduction to Microbiology with Lab (1642) (C and above) OR BIOL 301 Molecular Cell Biology (5809) (C and above) OR BIOL 305 Introduction to Microbiology (5789) (C and above)			3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation)	Biological Sciences, Medical Sciences	SEDS, SMG, SSH, SoM	
234	BIOL 321	Bioethics	3	6	BIOL 120 Modern Biology II (1195) (C and above)			3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation)	2 year UG SSH Biological Sciences, Chemistry, Mathematics, Medical Sciences, Physics	SEDS, SMG, SSH, SoM	
235	BIOL 331	Human Anatomy and Physiology II	3	6	BIOL 230 Human Anatomy and Physiology I (72) (C and above) OR BIOL 230 Human Anatomy and Physiology I (6217) (C and above)			3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Medical Sciences, Undeclared SSH	2 year UG SSH Biological Sciences, Chemistry, Mathematics, Physics	SEDS, SMG, SSH, SoM	
236	BIOL 333	Environmental Biology	3	6	BIOL 120 Modern Biology II (1195) (C and above)			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Medical Sciences	Chemistry, Mathematics, Physics	SEDS, SMG, SSH, SoM	
237	BIOL 341	Biochemistry I	3	6	CHEM 211 Organic Chemistry I (154) (C and above)			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Medical Sciences	Chemistry, Mathematics, Physics	SEDS, SMG, SSH, SoM	
238	BIOL 355	Critical Research Reasoning	3	6	BIOL 120 Modern Biology II (1195) (C and above)			3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Medical Sciences, Undeclared SSH	2 year UG SSH Biological Sciences	SEDS, SMG, SSH, SoM	

239	BIOL 363	Structural Bioinformatics	4	8	BIOL 341 Biochemistry I (2002) (C and above) OR CHEM 341 Biochemistry I (1058) (C and above) OR CSCI 235 Programming Languages (638) (C and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Medical Sciences, Undeclared SSH	Chemistry, Mathematics, Physics	SEDS, SMG, SSH, SoM
240	BIOL 370	Genetics	3	6	BIOL 120 Modern Biology II (1195) (C and above)		3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH (pending graduation)	Biological Sciences, Medical Sciences	SEDS, SMG, SSH, SoM
241	BIOL 392	Directed Study in Biology	3	6			Instructor's Permission Required. Registration through Add Course form only!		
242	BIOL 425	Biomedical Research Methods	3	6	BIOL 110 Modern Biology I (1070) (C and above) AND (BIOL 301 Molecular Biology of Cell with Lab (1197) (C and above) OR (BIOL 301 Molecular Cell Biology (5809) (C and above) AND BIOL 301L Molecular Cell Biology Laboratory (5678) (C and above))) AND (BIOL 341 Biochemistry I (2002) (C and above) OR CHEM 341 Biochemistry I (1058) (C and above))		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Medical Sciences, Undeclared SSH	Chemistry, Mathematics, Physics	SEDS, SMG, SSH, SoM
243	BIOL 430	Histology with Laboratory	4	8	BIOL 230 Human Anatomy and Physiology I (72) (C and above) OR BIOL 230 Human Anatomy and Physiology I (6217) (C and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Medical Sciences, Undeclared SSH	Chemistry, Mathematics, Physics	SEDS, SMG, SSH, SoM
244	BIOL 440	Neuroscience	3	6	BIOL 230 Human Anatomy and Physiology I (72) (C and above) OR BIOL 230 Human Anatomy and Physiology I (6217) (C and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Medical Sciences, Undeclared SSH	Chemistry, Mathematics, Physics	SEDS, SMG, SSH, SoM
245	BIOL 445	Medical Microbiology	3	6	BIOL 305 Introduction to Microbiology (5789) (C and above) OR BIOL 305 Introduction to Microbiology with Lab (1642) (C and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Medical Sciences, Undeclared SSH	Chemistry, Mathematics, Physics	SEDS, SMG, SSH, SoM
246	BIOL 450	Food Microbiology	3	6	BIOL 305 Introduction to Microbiology with Lab (1642) (C and above) OR BIOL 305 Introduction to Microbiology (5789) (C and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Medical Sciences, Undeclared SSH	Chemistry, Mathematics, Physics	SEDS, SMG, SSH, SoM
247	BIOL 456	Biology Research Design	3	6		BIOL 355 Critical Research Reasoning (1000) (C and above)	4 year UG SSH Biological Sciences, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Undeclared SSH	3 year UG SSH Biological Sciences	SEDS, SMG, SSH, SoM
248	BIOL 468	Integrated Cell Biology	3	6	(BIOL 110 Modern Biology I (107) (C and above) OR BIOL 110 Modern Biology I (1070) (C and above)) AND BIOL 120 Modern Biology II (1195) (C and above)		3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Medical Sciences, Undeclared SSH	2 year UG SSH Biological Sciences, Chemistry, Mathematics, Physics	SEDS, SMG, SSH, SoM
249	BIOL 471	Light and Electron microscopy concepts and techniques	3	6	BIOL 110 Modern Biology I (1070) (C and above) AND BIOL 120 Modern Biology II (1195) (C and above) AND CHEM 101 General Chemistry I (113) (C and above) AND PHYS 161 Physics I for Scientists and Engineers with Laboratory (116) (C and above)		3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Medical Sciences, Undeclared SSH	2 year UG SSH Biological Sciences, Chemistry, Mathematics, Physics	SEDS, SMG, SSH, SoM

250	BIOL 471L	Light and Electron Microscopy Concepts and Techniques-Lab	1	2		BIOL 471 Light and Electron microscopy concepts and techniques (4686) (C and above)		3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Medical Sciences, Undeclared SSH	2 year UG SSH Biological Sciences, Chemistry, Mathematics, Physics	SEDS, SMG, SSH, SoM	
251	BIOL 481	Neuroimmunology	3	6		BIOL 310 Immunology (628) (C and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Medical Sciences, Undeclared SSH	Biomedical Sciences, Chemistry, Mathematics, Physics	SEDS, SMG, SSH, SoM	
252	BIOL 491	Honors Thesis	9	18		BIOL 490 Honors Thesis Research (1581) (P)		Instructor's Permission Required. Registration through Add Course form only!			
253	BIOL 502	Research Methods and Bioethics	3	6				Biological Sciences	SSH	GSB, GSE, GSPP, SEDS, SMG, SoM	
254	BIOL 570	Advanced Biotechnology	3	6				Biological Sciences	SSH	GSB, GSE, GSPP, SEDS, SMG, SoM	
255	BIOL 580	Applied Bioinformatics	3	6		BIOL 520 Statistical Methods in Life Sciences (1203) (C and above)		Biological Sciences	SSH	GSB, GSE, GSPP, SEDS, SMG, SoM	
256	BIOL 590	Research Design and Project Planning	3	6				Biological Sciences	SSH	GSB, GSE, GSPP, SEDS, SMG, SoM	
257	BIOL 591	Cellular Biophysics	3	6				Biological Sciences	SSH	GSB, GSE, GSPP, SEDS, SMG, SoM	
258	BIOL 599	Master's Thesis Research	0	0				1 year Gr SSH Biological Sciences and Technologies			
259	BIOL 630	Advanced Neuroscience	3	6				Biological Sciences	SSH	GSB, GSE, GSPP, SEDS, SMG, SoM	
260	BIOL 637	Fundamentals of Advanced Microscopy	3	6				Biological Sciences	SSH	GSB, GSE, GSPP, SEDS, SMG, SoM	
261	BIOL 692	Master's Thesis	15	30		BIOL 691 Master's Thesis Research Proposal (5676) (B- and above)		Biological Sciences			
262	BIOL 800-0	Thesis Research	0	0				Life Sciences			
263	BIOL 830	Advanced Neuroscience	4	8				Biomedical Sciences, Life Sciences	SSH	GSB, GSE, GSPP, SEDS, SMG, SoM	
264	BIOL 870	Advanced Biotechnology	4	8				Biomedical Sciences, Life Sciences	SSH	GSB, GSE, GSPP, SEDS, SMG, SoM	
265	BIOL 880	Applied Bioinformatics	4	8				Biomedical Sciences, Life Sciences	SSH	GSB, GSE, GSPP, SEDS, SMG, SoM	
266	BIOL 891	Cellular Biophysics	4	8				Biomedical Sciences, Life Sciences	SSH	GSB, GSE, GSPP, SEDS, SMG, SoM	
Chemistry											
267	CHEM 092	Survey of Environmental Sciences for Non-Science Majors	3	6				5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SSH, 6 year UG SSH (pending graduation), Anthropology, Economics, History, Nursing, Political Science and International Relations, Sociology, World Languages, Literatures and Cultures	SSH	Undeclared SEDS, Undeclared SMG	
268	CHEM 101	General Chemistry I	3	6				1 year UG SMG, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Chemistry, SoM, Undeclared SSH	Computer Science, Electrical and Computer Engineering, Mathematics, Physics, Robotics Engineering, Robotics and Mechatronics, SMG	SEDS, SSH	
269	CHEM 101L	General Chemistry I lab	1	2		CHEM 101 General Chemistry I (113) (C and above)		1 year UG SMG, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Chemistry, SoM, Undeclared SSH	Computer Science, Electrical and Computer Engineering, Mathematics, Physics, Robotics Engineering, Robotics and Mechatronics, SMG	SEDS, SSH	

270	CHEM 102	General Chemistry II	3	6	CHEM 101 General Chemistry I (113) (C and above)			1 year UG SMG, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Chemistry, SoM, Undeclared SSH	Computer Science, Electrical and Computer Engineering, Mathematics, Physics, Robotics Engineering, Robotics and Mechatronics, SMG	SEDS, SSH	
271	CHEM 211	Organic Chemistry I	3	6	CHEM 102 General Chemistry II (232) (C and above)			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Chemistry, SoM	SSH	SEDS	
272	CHEM 211L	Organic Chemistry I Lab	1	2	CHEM 101L General Chemistry I lab (179) (C and above)	CHEM 211 Organic Chemistry I (154) (C and above)		Biological Sciences, Chemistry, SoM	SSH		
273	CHEM 212	Organic Chemistry II	3	6	CHEM 211 Organic Chemistry I (154) (C and above) OR CHEM 191 Chemistry I for Engineers (1908) (C and above)			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Biological Sciences, Chemistry, SoM	SEDS, SMG, SSH		
274	CHEM 212L	Organic Chemistry II Lab	1	2	CHEM 211L Organic Chemistry I Lab (156) (C and above)	CHEM 212 Organic Chemistry II (443) (C and above) OR CHEM 292 Organic Chemistry for Biologists II (1901) (C and above)		Biological Sciences, Chemistry, SoM	Anthropology, Economics, History, Mathematics, Physics, Political Science and International Relations, SMG, Sociology, Undeclared SSH, World Languages, Literatures and Cultures		
275	CHEM 250	Descriptive Inorganic Chemistry	3	6	CHEM 101 General Chemistry I (113) (C and above)			Chemistry	SSH	SEDS, SMG	
276	CHEM 320	Instrumental Analysis	3	6	CHEM 220 Quantitative Chemical Analysis (555) (C and above)			Chemistry	SSH	SEDS, SMG	
277	CHEM 320L	Instrumental Analysis Lab	1	2	(CHEM 220 Quantitative Chemical Analysis (555) (C and above) AND CHEM 220L Quantitative Chemical Analysis Lab (5271) (C and above)) OR CHEM 220 Quantitative Chemical Analysis (555) (C and above)	CHEM 320 Instrumental Analysis (1055) (C and above)		Chemistry	SSH	SEDS, SMG	
278	CHEM 332	Physical Chemistry II	3	6	CHEM 331 Physical Chemistry I (634) (C and above)	MATH 274 Introduction to Differential Equations (484) (C and above)		Chemistry	SSH	SEDS, SMG	
279	CHEM 332L	Physical Chemistry II Lab	1	2		CHEM 332 Physical Chemistry II (1056) (C and above) AND CHEM 331L Physical Chemistry Lab (1060) (C and above)		Chemistry	SSH	SEDS, SMG	
280	CHEM 341L	Biochemistry I Lab	1	2	CHEM 212L Organic Chemistry II Lab (444) (C and above)	CHEM 341 Biochemistry I (1058) (C and above)		Chemistry	SSH	SEDS, SMG	
281	CHEM 380	Research Methods	3	6				Chemistry	SSH	SEDS, SMG	
282	CHEM 431	Computational Chemistry	3	6	CHEM 332 Physical Chemistry II (1056) (C and above) AND (CSCI 111 Web Programming and Problem Solving (110) (C- and above) OR CSCI 150 Fundamentals of Programming (1501) (C- and above) OR CSCI 151 Programming for Scientists and Engineers (192) (C- and above))			Chemistry	SSH	SEDS, SMG	
283	CHEM 433	Surfactants and Colloids	3	6	CHEM 102 General Chemistry II (232) (C and above)			Chemistry	SSH	SEDS, SMG	

284	CHEM 451	Applied Homogenous Catalysis	3	6	CHEM 350 Advanced Inorganic Chemistry (1905) (C and above)		Chemistry	SSH	SEDS, SMG	
285	CHEM 488	Directed Research I	3	6	CHEM 380 Research Methods (636) (C and above)					
286	CHEM 490	Nanochemistry	3	6	CHEM 331 Physical Chemistry I (634) (C and above) AND CHEM 250 Descriptive Inorganic Chemistry (445) (C and above)		Chemistry	SSH	SEDS, SMG	
287	CHEM 511	Theoretical Chemistry	3	6	CHEM 510 Principles of Physical Chemistry (5266) (C and above)		Chemistry	SSH	SEDS, SMG, SoM	
288	CHEM 540	Organic Reactions and Mechanisms	3	6			Chemistry	SSH	SEDS, SMG, SoM	
289	CHEM 550	Selected Topics in Chemistry	3	6			Chemistry	SSH	SEDS, SMG, SoM	
290	CHEM 560	Directed research in chemistry	0	0			Instructor's Permission Required. Registration through Add Course form only!			
291	CHEM 592	Chemistry Seminar	3	6			Chemistry	SSH	SEDS, SMG, SoM	
292	CHEM 692	MSc Thesis in Chemistry	18	36	CHEM 691 Thesis Proposal (5858) (C- and above)		Chemistry			
293	CHEM 710	Mechanistic Principles of Organic Reactions	4	8			Chemistry	SSH	SEDS, SMG, SoM	
294	CHEM 731	Design of Functional Materials	4	8			Chemistry	SSH	SEDS, SMG, SoM	
295	CHEM 733	Colloid and Surfactant Science	4	8			Chemistry	SSH	SEDS, SMG, SoM	
296	CHEM 752	Materials Chemistry	4	8			Chemistry	SSH	SEDS, SMG, SoM	
297	CHEM 753	Organometallic Catalysis	4	8	CHEM 750 Modern Inorganic Chemistry (6499) (C and above)		Chemistry	SSH	SEDS, SMG, SoM	
298	CHEM 798-0	Thesis Research	0	0			Chemistry			
Communication and Composition										
299	WCS 101	Communication and Society	3	6			SEDS, SMG, SSH, SoM			
300	WCS 135	Introduction to Visual Communication	3	6			SEDS, SMG, SSH, SoM			
301	WCS 150	Rhetoric and Composition	3	6			1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH, 2 year UG SOM, 3 year UG SMG, 3 year UG SOM, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation), 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation)	3 year UG SEDS, 3 year UG SSH	SEDS, SMG, SSH, SoM	
302	WCS 200	Introduction to Public Speaking	3	6	WCS 150 Rhetoric and Composition (2183) (C- and above)		2 year UG SEDS, 2 year UG SSH, 4 year UG SMG, 4 year UG SSH, 4 year UG SSH (pending graduation), 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation)	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH	SEDS, SMG, SSH, SoM	
303	WCS 205	Intercultural Communication	3	6			SEDS, SMG, SSH, SoM			
304	WCS 210	Technical and Professional Writing	3	6	WCS 150 Rhetoric and Composition (2183) (C- and above)		Chemistry, SEDS, SMG			SSH, SoM
305	WCS 220	Science Writing	3	6	WCS 150 Rhetoric and Composition (2183) (C- and above)		2 year UG SEDS, 2 year UG SSH, 4 year UG SMG, 4 year UG SSH, 4 year UG SSH (pending graduation), 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), SoM			SEDS, SMG, SSH
306	WCS 230	Say What you Mean: Clarity, Precision, and Style in Academic Writing	3	6	WCS 150 Rhetoric and Composition (2183) (C- and above)		2 year UG SEDS, 2 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH, 4 year UG SSH (pending graduation), 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), SoM	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH	SEDS, SMG, SSH	
307	WCS 240	Writing for Digital Media	3	6	WCS 150 Rhetoric and Composition (2183) (C- and above)		2 year UG SEDS, 2 year UG SSH, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SSH, 4 year UG SSH (pending graduation), 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), SoM	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH	SEDS, SMG, SSH	

308	WCS 250	Advanced Rhetoric and Composition	3	6	WCS 150 Rhetoric and Composition (2183) (C- and above)		2 year UG SEDS, 2 year UG SMG, 2 year UG SSH, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SSH, 4 year UG SSH (pending graduation), 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), SoM	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH	SEDS, SMG, SSH		
309	WCS 390	Writing Fellows I - Composition and Collaboration in Theory and Practice	3	6	WCS 150 Rhetoric and Composition (2183) (B and above) AND (WCS 210 Technical and Professional Writing (4881) (B+ and above) OR WCS 220 Science Writing (5686) (B+ and above) OR WCS 230 Say What you Mean: Clarity, Precision, and Style in Academic Writing (3026) (B+ and above) OR WCS 240 Writing for Digital Media (4421) (B+ and above) OR WCS 250 Advanced Rhetoric and Composition (3027) (B+ and above))		2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH, 3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH	SEDS, SMG, SSH, SoM			
310	WCS 391	Writing Fellows II - Practicum in Composition & Collaboration	3	6	WCS 390 Writing Fellows I - Composition and Collaboration in Theory and Practice (1969) (B and above)		Instructor's Permission Required. Registration through Add Course form only!				
311	WCS 392	Writing Fellows III - Research & Practice in Writing & Peer Mentorship	3	6	WCS 391 Writing Fellows II - Practicum in Composition & Collaboration (3425) (B and above)						
312	WCS 501	Science Communication	3	6			SSH	SMG, SoM			
Communication and Composition, Languages, Literature and Linguistics											
313	WCS 260/WLL 235	Creative Writing: Introduction to Fiction Writing I	3	6	WCS 150 Rhetoric and Composition (2183) (C- and above)		2 year UG SSH Anthropology, 2 year UG SSH Economics, 2 year UG SSH History and Culture, 2 year UG SSH Political Sciences and International Relations, 2 year UG SSH Sociology, 2 year UG SSH World Languages, Literatures and Cultures	World Languages, Literatures and Cultures	SEDS, SMG, SSH, SoM		
314	WLL 363/WCS 363	Writing Speculative Fiction	3	6	WCS 260/WLL 235 Creative Writing: Introduction to Fiction Writing I (4000) (C and above)		Instructor's Permission Required. Registration through Add Course form only!				
315	WLL 462/WCS 462	Creative Nonfiction	3	6	WCS 260/WLL 235 Creative Writing: Introduction to Fiction Writing I (4000) (C and above)		SSH	SEDS, SMG, SoM			
Economics											
316	ECON 101	Introduction to Microeconomics	3	6			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Undeclared SEDS, Undeclared SMG, Undeclared SSH	SSH	SEDS, SMG, SoM		
317	ECON 102	Introduction to Macroeconomics	3	6			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Undeclared SEDS, Undeclared SMG, Undeclared SSH	SSH	SEDS, SMG, SoM		
318	ECON 120	Managerial Economics	3	6			SEDS		SSH		
319	ECON 201	Intermediate Microeconomics	3	6	ECON 101 Introduction to Microeconomics (379) (B- and above) AND (MATH 161 Calculus I (118) (B- and above) OR MATH 162 Calculus II (170) (B- and above))		Economics	Undeclared SSH	SSH		
320	ECON 202	Intermediate Macroeconomics	3	6	ECON 102 Introduction to Macroeconomics (503) (B- and above) AND (MATH 161 Calculus I (118) (B- and above) OR MATH 162 Calculus II (170) (B- and above))		Economics	Undeclared SSH	SSH		
321	ECON 211	Economic Statistics	3	6	ECON 101 Introduction to Microeconomics (379) (C and above) OR ECON 102 Introduction to Macroeconomics (503) (C and above)		Economics	Undeclared SSH	SSH		
322	ECON 300	Research Assistance in Economics	1	2	ECON 101 Introduction to Microeconomics (379) (C- and above) AND ECON 102 Introduction to Macroeconomics (503) (C- and above)						

323	ECON 301	Econometrics I	3	6	ECON 211 Economic Statistics (2280) (C- and above) OR (MATH 321 Probability (482) (C- and above) AND (MATH 322 Mathematical Statistics (1165) (C- and above) OR MATH 310 Applied Statistical Methods (82) (C- and above)))			3 year UG SSH Economics, 4 year UG SSH Economics, 5 year UG SSH Economics	2 year UG SSH Economics, 2 year UG SSH Undeclared	SSH	
324	ECON 302	Game Theory and Economic Analysis	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above)		PLS 315 Political Game Theory (704) (C- and above)	3 year UG SSH Economics	4 year UG SSH Economics	SSH	
325	ECON 305	Advanced Microeconomics	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above)	ECON 211 Economic Statistics (2280) (D and above)	ECON 398 General Special Topics in Economics (2184) (C- and above)	3 year UG SSH Economics	4 year UG SSH Economics	SSH	
326	ECON 318	Applied Econometrics	3	6	ECON 301 Econometrics I (664) (C- and above)			3 year UG SSH Economics	4 year UG SSH Economics	SSH	
327	ECON 319	Matching Theory and Applications	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above)			3 year UG SSH Economics	4 year UG SSH Economics	SSH	
328	ECON 322	Natural Resources and Environmental Economics	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above)		ECON 331 Environmental Economics (1687) (C- and above)	3 year UG SSH Economics	4 year UG SSH Economics	SSH	
329	ECON 415	Industrial Organization	3	6	ECON 301 Econometrics I (664) (C- and above)			Economics		SSH	
330	ECON 428	Wages and the Labor Market	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above) AND ECON 301 Econometrics I (664) (C- and above)			Economics		SSH	
331	ECON 434	Introduction to Big Data Analytics	3	6	ECON 301 Econometrics I (664) (C- and above)			Economics		SSH	
332	ECON 443	Topics in Macroeconomic Theory	3	6	ECON 202 Intermediate Macroeconomics (207) (C- and above) AND ECON 301 Econometrics I (664) (C- and above)			Economics	SSH		
333	ECON 521	Microeconomic Theory II	4	8	ECON 501 Microeconomics I (2187) (C- and above) AND ECON 512 Mathematical Economics (2154) (C- and above)			Economics	SSH		
334	ECON 522	Macroeconomics II	4	8	ECON 502 Macroeconomics I (2186) (C- and above) AND ECON 512 Mathematical Economics (2154) (C- and above)			Economics	SSH		
335	ECON 524	Research Methodology	4	8	ECON 501 Microeconomics I (2187) (C- and above) AND ECON 502 Macroeconomics I (2186) (C- and above) AND ECON 511 Statistics (2188) (C- and above)	ECON 531 Econometrics (2505) (D and above)		Economics	SSH		
336	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	SSH		
337	ECON 531	Econometrics	4	8	ECON 511 Statistics (2188) (C- and above) AND ECON 512 Mathematical Economics (2154) (C- and above)			Economics	SSH		
338	ECON 590	Thesis II	8	16	ECON 589 Thesis I (3714) (P)			Economics	SSH		
History, Philosophy and Religious Studies											
339	HST 100	History of Kazakhstan	3	6				4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation), 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SMG, 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation)	1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH	SEDS, SMG, SSH, SoM	

340	HST 226	Soviet Central Asia in WWII	3	6	REL 110/HST 110 Introduction to World Religions (142) (B and above) OR REL 120 Religion and Science (457) (B and above) OR REL 140 Religion in the Modern World (1623) (B and above) OR REL 160 Lived Religion (1347) (B and above) OR HST 100 History of Kazakhstan (172) (B and above) OR HST 103 Central Asian History I (to 1700) (197) (B and above) OR HST 104 Central Asian History II (1700 - 1991) (1192) (B and above) OR HST 105 Introduction to World Environmental History (4424) (B and above) OR HST 121 World History I (to 1500) (1193) (B and above) OR HST 122 World History II (from 1500) (1162) (B and above) OR HST 123 Introduction to the History of Science and Technology (1376) (B and above) OR HST 124 Introduction to the History of Medicine (3000) (B and above) OR HST 125 History of Magic (5668) (B and above) OR HST 131 European History I (to 1700) (201) (B and above) OR HST 132 European History II (from 1700) (139) (B and above) OR HST 151 US History I (to 1877) (668) (B and above) OR HST 152 US History II (from 1877) (465) (B and above) OR HST 172 Middle Eastern History II (from 1800) (1194) (B and above) OR HST 182 East Asian History II (from 1500) (213) (B and above) OR HST 199 Freshman Seminar (241) (B and above) OR HST 199 Freshman Seminar: Western Intellectual History (1509) (B and above)			SEDS, SMG, SSH, SoM		
341	HST 233	The Russian Empire from Catherine the Great to the Bolshevik Revolution	3	6	Subject "HST" BETWEEN 100 and 199			SEDS, SMG, SSH, SoM		
342	HST 336	The Totalitarian Phenomenon	3	6	HST 100 History of Kazakhstan (172) (C- and above)			SEDS, SMG, SSH, SoM		
343	HST 399	Independent Study	3	6				Instructor's Permission Required. Registration through Add Course form only!		
344	HST 400	Research Assistance	1	2	HST 100 History of Kazakhstan (172) (B and above) AND Subject "HST" BETWEEN 100 and 499			Instructor's Permission Required. Registration through Add Course form only!		
345	HST 499	History Capstone: Undergraduate Dissertation	4	8	HST 498 Directed Reading (1365) (C- and above)					
346	PHIL 124	Knowledge and Reality	3	6				SEDS, SMG, SSH, SoM		
347	PHIL 141	Critical Thinking	3	6				SEDS, SMG, SSH, SoM		
348	PHIL 160	Philosophy of Religion	3	6				SEDS, SMG, SSH, SoM		
349	PHIL 210	Ethics	3	6				4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation), 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SMG, 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH	2 year UG SEDS, 3 year UG SEDS	SEDS, SMG, SSH, SoM
350	PHIL 240	Formal Logic	3	6				SEDS, SMG, SSH, SoM		
351	PHIL 320	Truth, Knowledge and Belief	3	6				SEDS, SMG, SSH, SoM		
352	PHIL 362	Philosophy of Mind	3	6				SEDS, SMG, SSH, SoM		
353	REL 212	Buddhist Religious Traditions	3	6				SEDS, SMG, SSH, SoM		
History, Philosophy and Religious Studies, History, Philosophy and Religious Studies										
354	HST 341/REL 341	Eastern Christianity	3	6				REL 240 Christian Religious Traditions (1348) (C- and above)	SEDS, SMG, SSH, SoM	

355	HST 462/REL 462	History of Islam Under Russian Rule	3	6				SEDS, SMG, SSH, SoM			
356	HST 562/REL 562	History of Islam under Russian Rule	4	8				SSH	GSB, GSE, GSPP, SEDS, SMG, SoM		
357	REL 110/HST 110	Introduction to World Religions	3	6				SEDS, SMG, SSH, SoM			
358	REL 273/HST 273	History of Sufism in the Middle East and Central Asia	3	6	Subject "HST" BETWEEN 100 and 199			SEDS, SMG, SSH, SoM			
359	REL 320/HST 320	The Crusades	3	6	Subject "HST" BETWEEN 100 and 199			SEDS, SMG, SSH, SoM			
History, Philosophy and Religious Studies, Kazakh Language and Turkic Studies											
360	HST 272/TUR 272	Modern Turkey: from the Ottoman Empire to the Turkish Republic	3	6				SEDS, SMG, SSH, SoM			
History, Philosophy and Religious Studies, Kazakh Language and Turkic Studies, Sociology and Anthropology											
361	ANT 375/HST 375/TUR 375	Inner Asian Frontiers of China: A Cultural Perspective	3	6				3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SOM (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)	1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH, 2 year UG SEDS, 2 year UG SOM, 2 year UG SMG, 2 year UG SSH		
History, Philosophy and Religious Studies, Languages, Literature and Linguistics											
362	HST 274/WLL 274	Texts and Contexts	3	6				SEDS, SMG, SSH, SoM			
History, Philosophy and Religious Studies, Sociology and Anthropology											
363	ANT 435/REL 435	The Archaeology of Ritual	3	6	ANT 140 World Prehistory (227) (C- and above) OR ANT 231 Frauds and Fallacies in Archaeology (1129) (C- and above) OR ANT 232 Life, Death and Economy: Archaeology of Central Asia (1461) (C- and above) OR ANT 240 Laboratory Methods in Archaeology (5669) (C- and above)			5 year UG SEDS, 5 year UG SOM (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Anthropology, Sociology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	2 year UG SSH	SEDS, SMG, SSH, SoM	
364	ANT 535/REL 535	The Archaeology of Ritual	4	8				Eurasian Studies			
Kazakh Language and Turkic Studies											
365	KAZ 201	Academic Kazakh I	3	6	KAZ 150 Basic Kazakh (1215) (C- and above) OR KLL "[B1.2] Intermediate"			1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 5 year UG SEDS, 5 year UG SOM (pending graduation), 5 year UG SMG, 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation)	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SOM (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)	1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	
366	KAZ 202	Academic Kazakh II	3	6	KAZ 201 Academic Kazakh I (4561) (C- and above) OR KLL "[B2.2] Upper-Interm."			1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 5 year UG SEDS, 5 year UG SOM (pending graduation), 5 year UG SMG, 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation)	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SOM (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)	1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	
367	KAZ 211	Academic Speaking in Kazakh	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"		KAZ 212 Academic Writing in Kazakh (703) (C- and above)	1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 5 year UG SEDS, 5 year UG SOM (pending graduation), 5 year UG SMG, 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation)	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SOM (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)	1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	

377	KAZ 371	Contemporary Kazakh Literature	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SMG, 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation)	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)	1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	
378	KAZ 372	Language and ethnicity	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SMG, 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation)	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)	1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	
379	KAZ 373	Kazakh Terminology	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SMG, 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation)	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)	1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	
380	KAZ 374	Kazakh Diplomacy	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			1 year UG SMG, 4 year UG SSH Political Sciences and International Relations	3 year UG SSH Political Sciences and International Relations	2 year UG SSH Political Sciences and International Relations	
381	KAZ 410	Kazakh literature of the XV-XIX centuries	3	6	Subject "KAZ" BETWEEN 300 and 399 OR Subject "KAZ" BETWEEN 300 and 399			1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SMG, 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation)	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)	1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	
382	KFL 102	Elementary Kazakh as a Foreign Language II	4	8	KFL 101 Elementary Kazakh as a Foreign Language I (4889) (C- and above)			1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH, 3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation), 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SMG, 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation)	Eurasian Studies		
383	TUR 100	Languages, Cultures, and Communities of the Turkic World	3	6				1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)		
384	TUR 230	Literatures of Central Asia	3	6				3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)	1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH		
385	TUR 231	Istanbul in Literature and Culture	3	6				3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)	1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH		
386	TUR 235	Turkish Poetry in Translation	3	6				3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)	1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH		

387	TUR 305	Introduction to Chagatay and Ottoman Turkish	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL *[C1.1] Advanced"			3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)	1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH		
388	TUR 412	Advanced Turkish in Media and Politics	3	6				3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)	1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH		
389	TUR 575	Advanced Topics in Turkic Studies	4	8				Eurasian Studies			
390	TUR 775	Doctoral Topic in Turkic Studies	4	8							
Languages, Literature and Linguistics											
391	CHN 101	Beginning Mandarin I	4	8				2 year UG SSH World Languages, Literatures and Cultures	3 year UG SSH World Languages, Literatures and Cultures, Undeclared SSH	SEDS, SMG, SSH, SoM	
392	CHN 201	Intermediate Mandarin I	4	8	CHN 102 Beginning Mandarin II (1844) (C and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
393	FRE 101	Beginning French I	4	8				2 year UG SSH World Languages, Literatures and Cultures	3 year UG SSH World Languages, Literatures and Cultures, Undeclared SSH	SEDS, SMG, SSH, SoM	
394	FRE 102	Beginning French II	4	8	FRE 101 Beginning French I (246) (C- and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
395	FRE 201	Intermediate French I	4	8	FRE 102 Beginning French II (454) (C- and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
396	FRE 202	Intermediate French II	4	8	FRE 201 Intermediate French I (667) (C- and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
397	GER 102	Beginning German II	4	8	GER 101 Beginning German (3173) (C- and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
398	GER 201	Intermediate German I	4	8	GER 102 Beginning German II (3335) (C- and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
399	GER 202	Intermediate German II	4	8	GER 201 Intermediate German I (3722) (C- and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
400	KOR 102	Beginning Korean II	4	8	KOR 101 Beginning Korean I (4672) (C- and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
401	KOR 202	Intermediate Korean II	4	8	KOR 201 Intermediate Korean I (5059) (C- and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
402	LING 130	Introduction to Language and Communication	3	6				Undeclared SSH	World Languages, Literatures and Cultures	SEDS, SMG, SSH	
403	LING 131	Introduction to Linguistics	3	6				Undeclared SSH	World Languages, Literatures and Cultures	SEDS, SMG, SSH	
404	LING 140	Language Variation and Change: the Story of English	3	6				Undeclared SSH	World Languages, Literatures and Cultures	SEDS, SMG, SSH, SoM	
405	LING 271	Introduction to Cognitive Linguistics	3	6	LING 131 Introduction to Linguistics (1394) (C and above)			World Languages, Literatures and Cultures	2 year UG SSH, 3 year UG SSH	SEDS, SMG, SSH, SoM	
406	LING 273	Survey of Research Methods in Linguistics	3	6	LING 131 Introduction to Linguistics (1394) (C- and above)			World Languages, Literatures and Cultures	2 year UG SSH, 3 year UG SSH	SEDS, SMG, SoM	
407	LING 278	Sounds of the World's Languages	3	6				World Languages, Literatures and Cultures	2 year UG SSH, 3 year UG SSH	SEDS, SMG, SSH, SoM	
408	LING 376	Psycholinguistics	3	6	LING 131 Introduction to Linguistics (1394) (C- and above) OR LING 272 Language and the Mind (1847) (C- and above) OR LING 273 Survey of Research Methods in Linguistics (2158) (C- and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
409	LING 461	Experimental semantics	3	6	LING 130 Introduction to Language and Communication (4014) (C- and above) OR LING 131 Introduction to Linguistics (1394) (C- and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
410	LING 472	Language Ideologies	3	6	LING 131 Introduction to Linguistics (1394) (C- and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
411	LING 475	Discourse, Grammar, and Interaction	3	6	LING 131 Introduction to Linguistics (1394) (C- and above) OR ANT 277/JWL 271 Language and Society (1027) (C- and above) OR LING 272 Language and the Mind (1847) (C- and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	

412	LING 772	Language Ideologies	4	8			Biomedical Sciences, Chemical Engineering, Chemistry, Civil Engineering, Computer Science , Education, Electrical Engineering, Eurasian Studies, Global Health, Life Sciences, Mathematics, Mechanical Engineering, Mining Engineering, Petroleum Engineering, Physics, Public Policy, Robotics Engineering, Science, Engineering and Technology			
413	PER 101	Beginning Persian I	4	8			Instructor's Permission Required. Registration through Add Course form only!			
414	RFL 215	What is Islam? Anthropological Perspectives	3	6			Instructor's Permission Required. Registration through Add Course form only!			
415	RFL 311	Russian Literature in the Context of Eurasia	3	6			Instructor's Permission Required. Registration through Add Course form only!			
416	RFL 403	Advanced and Superior Composition and Conversation Russian	4	8			Instructor's Permission Required. Registration through Add Course form only!			
417	RFL 469	International relations of Eurasia	3	6			Instructor's Permission Required. Registration through Add Course form only!			
418	SPA 102	Beginning Spanish II	4	8	SPA 101 Beginning Spanish I (685) (C- and above)		World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
419	SPA 202	Intermediate Spanish II	4	8	SPA 201 Intermediate Spanish I (1475) (C- and above)		World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
420	SPA 311	Colloquial Spanish	3	6	SPA 202 Intermediate Spanish II (1842) (C and above)		World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
421	WLL 110	Introduction to Literary Studies	3	6			SoM, Undeclared SSH	World Languages, Literatures and Cultures	SEDS, SMG, SSH	
422	WLL 211	World Literature II: from the 18th to the 20th century	3	6			World Languages, Literatures and Cultures	2 year UG SSH, 3 year UG SSH	SEDS, SMG, SSH, SoM	
423	WLL 240	Introduction to the Novel	3	6			World Languages, Literatures and Cultures	2 year UG SSH, 3 year UG SSH	SEDS, SMG, SSH, SoM	
424	WLL 241	Survey of Folk Tales	3	6			World Languages, Literatures and Cultures	2 year UG SSH, 3 year UG SSH	SEDS, SMG, SSH, SoM	
425	WLL 244	Survey of Nineteenth-Century Russian Literature	3	6			World Languages, Literatures and Cultures	2 year UG SSH, 3 year UG SSH	SEDS, SMG, SSH, SoM	
426	WLL 341	Soviet Literature as Multinational Literature	3	6			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	

427	WLL 349	Terrible Perfection: Women in 19th-Century Russian Literature	3	6	<p>WLL 101 Introduction to Critical Issues in the Humanities and Social Sciences (234) (C and above) OR WLL 102 /PHIL 102 Language, Experience, Culture (2481) (C and above) OR WLL 110 Introduction to Literary Studies (244) (C and above) OR WLL 111 Introduction to Theatre (2160) (C and above) OR WLL 121 Introduction to Cultural Studies (243) (C and above) OR WLL 155 Introduction to the Comic Book (3046) (C and above) OR WLL 171/ANT 175 Introduction to Linguistic Anthropology (4417) (C and above) OR WLL 201 World Literature I (686) (C and above) OR WLL 209 Introduction to Translation Studies (2178) (C and above) OR WLL 210 Migrants, Nomads and Exiles (217) (C and above) OR WLL 211 World Literature II: from the 18th to the 20th century (492) (C and above) OR WLL 212 Introduction to Poetry (2167) (C and above) OR WLL 213/SPA 211 Introduction to the Hispanic World (1030) (C and above) OR WLL 218 Renaissance in Italy and Beyond (6573) (C and above) OR WLL 219 Myth and Adaptation (2489) (C and above) OR WLL 220 Ancient World Literature (to 1650) (218) (C and above) OR WLL 221 Creative Writing/Theatre (245) (C and above) OR WLL 222 Acting: Praxis, Theory and History (3336) (C and above) OR WLL 231 Beginning and Intermediate Playwriting (1625) (C and above) OR WLL 240 Introduction to the Novel (687) (C and above) OR WLL 241 Survey of Folk Tales (466) (C and above) OR WLL 243 Western Theatre, Literature and History From Ancient Greece to 1800 (1082) (C and above) OR WLL 244 Survey of Nineteenth-Century Russian Literature (1395) (C and above) OR WLL 246 Survey of Contemporary Russian Literature and Culture (3604) (C and above) OR WLL 247 Survey of East Asian Literature (1382) (C and above) OR WLL 248 Survey of Soviet Literature and Culture (3842) (C and above) OR WLL 250 From Page to Screen (472) (C and above) OR WLL 251 Hong Kong Cinema (3337) (C and above) OR WLL 253 Western Theatre Literature and History: 1800-Present (1396) (C and above) OR WLL 254/SPA 254 Superstition, Magical Realism, and Horror in Hispanic Culture (1851) (C and above) OR WLL 255 The Comic Book in Japan and America (1849) (C and above) OR WLL 257 Fan Culture in the Age of Convergence (2487) (C and above) OR WLL 291 Theatre Practicum (2168) (C and above)</p>			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
428	WLL 400	Research Assistance in Linguistics and Literature	1	2	LING 273 Survey of Research Methods in Linguistics (2158) (C- and above)			Anthropology, Sociology			

429	WLL 451	The Call of the Evil: Unmasking the Villain(ness) in Popular Culture and Literature	3	6	WLL 201 World Literature I (686) (C+ and above) OR WLL 209 Introduction to Translation Studies (2178) (C+ and above) OR WLL 210 Migrants, Nomads and Exiles (217) (C+ and above) OR WLL 211 World Literature II: from the 18th to the 20th century (492) (C+ and above) OR WLL 212 Introduction to Poetry (2167) (C+ and above) OR WLL 213/SPA 211 Introduction to the Hispanic World (1030) (C+ and above) OR WLL 218 Renaissance in Italy and Beyond (6573) (C+ and above) OR WLL 219 Myth and Adaptation (2489) (C+ and above) OR WLL 220 Ancient World Literature (to 1650) (218) (C+ and above) OR WLL 221 Creative Writing/Theatre (245) (C+ and above) OR WLL 222 Acting: Praxis, Theory and History (3336) (C+ and above) OR WLL 231 Beginning and Intermediate Playwriting (1625) (C+ and above) OR WLL 240 Introduction to the Novel (687) (C+ and above) OR WLL 241 Survey of Folk Tales (466) (C+ and above) OR WLL 243 Western Theatre, Literature and History From Ancient Greece to 1800 (1082) (C+ and above) OR WLL 244 Survey of Nineteenth-Century Russian Literature (1395) (C+ and above) OR WLL 349 Terrible Perfection: Women in 19th-Century Russian Literature (2488) (C+ and above) OR WLL 246 Survey of Contemporary Russian Literature and Culture (3604) (C+ and above) OR WLL 247 Survey of East Asian Literature (1382) (C+ and above) OR WLL 248 Survey of Soviet Literature and Culture (3842) (C+ and above) OR WLL 250 From Page to Screen (472) (C+ and above) OR WLL 251 Hong Kong Cinema (3337) (C+ and above) OR WLL 253 Western Theatre Literature and History: 1800-Present (1396) (C+ and above) OR WLL 254/SPA 254 Superstition, Magical Realism, and Horror in Hispanic Culture (1851) (C+ and above) OR WLL 255 The Comic Book in Japan and America (1849) (C+ and above) OR WLL 257 Fan Culture in the Age of Convergence (2487) (C+ and above) OR WLL 291 Theatre Practicum (2168) (C+ and above)		World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
430	WLL 499	Languages, Linguistics, and Literatures Capstone II	3	6	WLL 498 Languages, Linguistics, and Literatures Capstone I (3048) (C- and above)		World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
Mathematics										
431	MATH 109	Mathematical Discovery	3	6		MATH 161 Calculus I (118) (C- and above)	5 year UG SSH, 5 year UG SSH (pending graduation), Anthropology, History, Political Science and International Relations, Sociology, Undeclared SSH, World Languages, Literatures and Cultures			
432	MATH 161	Calculus I	4	8			1 year UG SEDS, 1 year UG SMG, 1 year UG SSH Biological Sciences, 1 year UG SSH Chemistry, 1 year UG SSH Mathematics, 1 year UG SSH Physics, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), Medical Sciences	1 year UG SSH Undeclared, Biological Sciences, Chemistry, Mathematics, Physics, SEDS, SMG	SSH, SoM	
433	MATH 162	Calculus II	4	8	MATH 161 Calculus I (118) (C and above)		1 year UG SEDS, 1 year UG SMG, 1 year UG SSH Biological Sciences, 1 year UG SSH Chemistry, 1 year UG SSH Mathematics, 1 year UG SSH Physics, 5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), Medical Sciences	1 year UG SSH Undeclared, Biological Sciences, Chemistry, Mathematics, Physics, SEDS, SMG	SSH, SoM	
434	MATH 251	Discrete Mathematics	3	6	MATH 161 Calculus I (118) (C and above)		Computer Science, Mathematics	SEDS, SMG, SSH, SoM		
435	MATH 263	Calculus III	4	8	MATH 162 Calculus II (170) (C and above)		Mathematics, Physics	SEDS, SMG, SSH, SoM		

436	MATH 273	Linear Algebra with Applications	4	8	MATH 161 Calculus I (118) (C and above)	MATH 162 Calculus II (170) (C and above)	2 year UG SEDS Computer Science, 2 year UG SEDS Robotics Engineering, 2 year UG SEDS Robotics and Mechatronics, Mathematics, Physics	Computer Science, Robotics Engineering, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
437	MATH 274	Introduction to Differential Equations	3	6	MATH 162 Calculus II (170) (C and above)		Chemistry, Robotics Engineering, Robotics and Mechatronics	Mathematics, Physics	SEDS, SMG, SSH, SoM	
438	MATH 302	Abstract Algebra I	3	6	MATH 273 Linear Algebra with Applications (84) (C and above) AND MATH 251 Discrete Mathematics (85) (C and above)		Mathematics	SEDS, SMG, SSH, SoM		
439	MATH 310	Applied Statistical Methods	3	6	MATH 161 Calculus I (118) (C and above)		MATH 321 Probability (482) (C and above)	2 year UG SMG Mining Engineering, 2 year UG SSH Biological Sciences	Biological Sciences, Mining Engineering	SEDS, SMG, SSH, SoM
440	MATH 321	Probability	3	6	MATH 162 Calculus II (170) (C and above)		ECON 211 Economic Statistics (2280) (C- and above) OR PLS 211 Quantitative Methods (221) (C- and above)	2 year UG SEDS Computer Science, 2 year UG SSH Mathematics, 3 year UG SEDS Robotics Engineering, 3 year UG SEDS Robotics and Mechatronics, 5 year UG SSH, 5 year UG SSH (pending graduation)	Computer Science, Robotics Engineering, Robotics and Mechatronics	SEDS, SMG, SSH, SoM
441	MATH 322	Mathematical Statistics	3	6	MATH 321 Probability (482) (C and above) OR ECON 211 Economic Statistics (2280) (C and above)		Mathematics	SEDS, SMG, SSH, SoM		
442	MATH 323	Actuarial Mathematics I	3	6	MATH 321 Probability (482) (C and above) OR ECON 211 Economic Statistics (2280) (C and above) OR (MATH 162 Calculus II (170) (C and above) AND MATH 310 Applied Statistical Methods (82) (C and above))		Mathematics	SEDS, SMG, SSH, SoM		
443	MATH 350	Research Methods	3	6	MATH 321 Probability (482) (C and above)		Mathematics			
444	MATH 351	Numerical Methods with Applications	3	6	MATH 274 Introduction to Differential Equations (484) (C and above) AND MATH 263 Calculus III (81) (C and above)		ENG 202 Numerical Methods in Engineering (5506) (C and above)	Mathematics	SEDS, SMG, SSH, SoM	
445	MATH 361	Real Analysis I	3	6	MATH 263 Calculus III (81) (C and above) AND MATH 251 Discrete Mathematics (85) (C and above)		Mathematics	SEDS, SMG, SSH, SoM		
446	MATH 403	Abstract Algebra II	3	6	MATH 302 Abstract Algebra I (620) (C and above)		Mathematics	SEDS, SMG, SSH, SoM		
447	MATH 407	Graph Theory	3	6	(MATH 301 Introduction to Number Theory (613) (C and above) OR MATH 251 Discrete Mathematics (85) (C and above)) AND MATH 273 Linear Algebra with Applications (84) (C and above)		Mathematics	SEDS, SMG, SSH, SoM		
448	MATH 411	Linear Programming	3	6	MATH 273 Linear Algebra with Applications (84) (C and above) AND MATH 263 Calculus III (81) (C and above)		Mathematics	SEDS, SMG, SSH, SoM		
449	MATH 423	Actuarial Mathematics II	3	6	MATH 321 Probability (482) (C and above) OR ECON 211 Economic Statistics (2280) (C and above)		Mathematics	SEDS, SMG, SSH, SoM		
450	MATH 424	Mathematical Finance	3	6	MATH 321 Probability (482) (C and above) OR ECON 211 Economic Statistics (2280) (C and above)		Mathematics	SEDS, SMG, SSH, SoM		
451	MATH 455	Stochastic Calculus	3	6	MATH 321 Probability (482) (C and above)		Mathematics	SEDS, SMG, SSH, SoM		
452	MATH 460	Topology	3	6	MATH 361 Real Analysis I (483) (C and above)		Mathematics	SEDS, SMG, SSH, SoM		
453	MATH 461	Real Analysis II	3	6	MATH 361 Real Analysis I (483) (C and above)		Mathematics	SEDS, SMG, SSH, SoM		
454	MATH 462	Advanced Linear Algebra	3	6	MATH 251 Discrete Mathematics (85) (C and above) AND MATH 273 Linear Algebra with Applications (84) (C and above)		Mathematics	SEDS, SMG, SSH, SoM		
455	MATH 471	Nonlinear Differential Equations	3	6	MATH 273 Linear Algebra with Applications (84) (C and above) AND MATH 274 Introduction to Differential Equations (484) (C and above)		Mathematics	SEDS, SMG, SSH, SoM		

456	MATH 482	Fourier Analysis	3	6	MATH 263 Calculus III (81) (C and above) AND MATH 274 Introduction to Differential Equations (484) (C and above)			Mathematics	SEDS, SMG, SSH, SoM		
457	MATH 490	Special Topics in Mathematics I	3	6				Instructor's Permission Required. Registration through Add Course form only!			
458	MATH 499	Capstone Project	3	6				Instructor's Permission Required. Registration through Add Course form only!			
459	MATH 514	Operations Research	3	6				Applied Mathematics	SEDS, SSH	GSB, GSE, GSPP, SMG, SoM	
460	MATH 541	Data Analysis and Statistical Learning	3	6	MATH 540 Statistical Learning (2340) (B- and above)			Applied Mathematics	SEDS, SSH	GSB, GSE, GSPP, SMG, SoM	
461	MATH 571	Advanced Nonlinear Differential Equations	3	6				Applied Mathematics	SEDS, SSH	GSB, GSE, GSPP, SMG, SoM	
462	MATH 582	Mathematical Biology	3	6				Applied Mathematics	SEDS, SSH	GSB, GSE, GSPP, SMG, SoM	
463	MATH 682	Applied Functional Analysis	3	6				Applied Mathematics	SEDS, SSH	GSB, GSE, GSPP, SMG, SoM	
464	MATH 691	Thesis Proposal	3	6	MATH 592 Research Seminar (5760) (C- and above)			Instructor's Permission Required. Registration through Add Course form only!			
465	MATH 692	Thesis	15	30	MATH 691 Thesis Proposal (5769) (P)			Instructor's Permission Required. Registration through Add Course form only!			
466	MATH 700-0	Thesis Research	0	0				Mathematics			
467	MATH 702	Functional Analysis with Applications	4	8				Mathematics	SEDS, SSH	GSB, GSE, GSPP, SMG, SoM	
468	MATH 761	Mathematical Finance	4	8				Mathematics	SEDS, SSH	GSB, GSE, GSPP, SMG, SoM	
469	MATH 771	Operations Research	4	8				Mathematics	SEDS, SSH	GSB, GSE, GSPP, SMG, SoM	
470	MATH 791	Topics in Mathematics	4	8				Mathematics	SEDS, SSH	GSB, GSE, GSPP, SMG, SoM	
Physics											
471	PHYS 161	Physics I for Scientists and Engineers with Laboratory	4	8		MATH 161 Calculus I (118) (C and above)		PHYS 171 Physics I for Physics Majors with Laboratory (1401) (C- and above)	SEDS, SMG, SSH, SoM		
472	PHYS 162	Physics II for Scientists and Engineers with Laboratory	4	8	PHYS 161 Physics I for Scientists and Engineers with Laboratory (116) (C- and above) OR PHYS 151 Introductory Physics I with Lab (649) (C- and above)			PHYS 172 Physics II for Physics Majors with Laboratory (1402) (C- and above)	SEDS, SMG, SSH, SoM		
473	PHYS 222	Classical Mechanics II	3	6	PHYS 221 Classical Mechanics I (652) (C- and above)	MATH 274 Introduction to Differential Equations (484) (D and above)		Physics	SSH	SEDS, SMG, SoM	
474	PHYS 270	Computational Physics with Laboratory	3	6	(CSCI 150 Fundamentals of Programming (1501) (C- and above) OR CSCI 151 Programming for Scientists and Engineers (192) (C- and above)) AND MATH 263 Calculus III (81) (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))	MATH 273 Linear Algebra with Applications (84) (D and above)		Physics	SSH	SEDS, SMG, SoM	
475	PHYS 280	Thermodynamics and Statistical Physics	3	6	MATH 263 Calculus III (81) (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))			Physics	SSH	SEDS, SMG, SoM	
476	PHYS 362	Classical Electrodynamics II	3	6	PHYS 361 Classical Electrodynamics I (651) (C- and above)			Physics	SSH	SEDS, SMG, SoM	

477	PHYS 370	Optics with Laboratory	4	8	PHYS 361 Classical Electrodynamics I (651) (C- and above)		Physics	SSH	SEDS, SMG, SoM	
478	PHYS 451	Quantum Mechanics I	3	6	PHYS 221 Classical Mechanics I (652) (C- and above) AND PHYS 361 Classical Electrodynamics I (651) (C- and above)		Physics	SSH	SEDS, SMG, SoM	
479	PHYS 462	Field Theories in Physics	3	6	MATH 162 Calculus II (170) (C- and above) AND PHYS 221 Classical Mechanics I (652) (C- and above)	PHYS 451 Quantum Mechanics I (1415) (C- and above)	Physics	SSH	SEDS, SMG, SoM	
480	PHYS 470	Introduction to Optoelectronics	4	8	PHYS 261 Modern Physics with laboratory (125) (C- and above) OR PHYS 473 Introduction to Solid State Physics (1423) (C- and above) OR CHEM 331 Physical Chemistry I (634) (C- and above) OR MAE 301 Engineering Thermodynamics (5927) (C- and above) OR CHME 201 Chemical Engineering Thermodynamics (5007) (C- and above) OR ELCE 204 Solid State Devices (5508) (C- and above)		Physics	SSH	SEDS, SMG, SoM	
481	PHYS 483	Statistical Mechanics	3	6	PHYS 280 Thermodynamics and Statistical Physics (1179) (C- and above)		Physics	SSH	SEDS, SMG, SoM	
482	PHYS 491	Directed Study of Advanced Physics Topics	3	6			Instructor's Permission Required. Registration through Add Course form only!			
483	PHYS 499	Honors Thesis	3	6			Instructor's Permission Required. Registration through Add Course form only!			
484	PHYS 510	Quantum Mechanics	3	6			Physics			
485	PHYS 520	Statistical Physics	3	6			Physics			
486	PHYS 565	Advanced Physics Laboratory	4	8			Physics			
487	PHYS 570	Introduction to Optoelectronics	4	8			Physics			
488	PHYS 692	Thesis	21	42			Instructor's Permission Required. Registration through Add Course form only!			
489	PHYS 700-0	Thesis Research	0	0			Physics			
490	PHYS 701	Current Research Literature	3	6			Physics			
491	PHYS 710	Quantum Mechanics	4	8			Physics			
492	PHYS 720	Statistical Physics	4	8			Physics			
493	PHYS 770	Introduction to Optoelectronics	4	8			Physics			
Political Science and International Relations										
494	PLS 101	Introduction to Political Science	3	6			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SSH, Undeclared SEDS, Undeclared SMG	SEDS, SMG, SoM	
495	PLS 120	Introduction to Political Theory	3	6			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	Undeclared SSH	SEDS, SMG, SSH, SoM	
496	PLS 140	Introduction to Comparative Politics	3	6			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	Undeclared SSH	SEDS, SMG, SSH, SoM	
497	PLS 150	Introduction to International Relations	3	6			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	Undeclared SSH	SEDS, SMG, SSH, SoM	

498	PLS 210	Political Science Research Methods	3	6			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
499	PLS 211	Quantitative Methods	3	6		ECON 211 Economic Statistics (2280) (C- and above)	5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
500	PLS 312	Public Opinion and Elections	3	6	PLS 211 Quantitative Methods (221) (C- and above) OR ECON 211 Economic Statistics (2280) (C- and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
501	PLS 315	Political Game Theory	3	6	PLS 211 Quantitative Methods (221) (C- and above) OR ECON 101 Introduction to Microeconomics (379) (C and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
502	PLS 320	Feminist Political Theory	3	6	PLS 120 Introduction to Political Theory (512) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
503	PLS 329	Anarchy	3	6	PLS 120 Introduction to Political Theory (512) (C- and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
504	PLS 331	Nationalism and Multi-Ethnic Governance	3	6	PLS 210 Political Science Research Methods (129) (C- and above) AND PLS 140 Introduction to Comparative Politics (223) (C- and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
505	PLS 341	Politics of Development	3	6	PLS 210 Political Science Research Methods (129) (C- and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
506	PLS 343	Politics of Sub-Saharan Africa	3	6	PLS 140 Introduction to Comparative Politics (223) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
507	PLS 352	International Relations Theory	3	6	PLS 150 Introduction to International Relations (511) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
508	PLS 355	European Union: Institutions and Policies	3	6	PLS 210 Political Science Research Methods (129) (C- and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
509	PLS 360	Foreign Policy Analysis	3	6	PLS 150 Introduction to International Relations (511) (C- and above) AND PLS 211 Quantitative Methods (221) (C- and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
510	PLS 361	Memory Politics in East Asia	3	6			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
511	PLS 362	Science, Technology and International Affairs	3	6	PLS 150 Introduction to International Relations (511) (C- and above)		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		

512	PLS 363	Visual Politics	3	6	PLS 140 Introduction to Comparative Politics (223) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above)			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
513	PLS 374	Public Choice and Public Policy	3	6	PLS 140 Introduction to Comparative Politics (223) (C- and above) AND PLS 211 Quantitative Methods (221) (C- and above)			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
514	PLS 391	Intermediate Special Topics in Comparative Politics	3	6	PLS 210 Political Science Research Methods (129) (C- and above)			SSH			
515	PLS 392	Politics of China	3	6	PLS 210 Political Science Research Methods (129) (C- and above)			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
516	PLS 395	Independent Study	3	6	PLS 210 Political Science Research Methods (129) (C- and above) AND PLS 211 Quantitative Methods (221) (C- and above)			Instructor's Permission Required. Registration through Add Course form only!			
517	PLS 422	Just War Theory	3	6	PLS 120 Introduction to Political Theory (512) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above)			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
518	PLS 426	Hannah Arendt on Power, Violence, and Revolution	3	6	PLS 120 Introduction to Political Theory (512) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above)			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
519	PLS 434	Text Analysis and Political Communication in the Information Age	3	6	PLS 210 Political Science Research Methods (129) (C- and above) AND PLS 211 Quantitative Methods (221) (C- and above)			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
520	PLS 441	Advanced Topics in Comparative Politics	3	6	PLS 140 Introduction to Comparative Politics (223) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above)			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
521	PLS 451	Advanced Topics in International Relations	3	6	PLS 150 Introduction to International Relations (511) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above) AND PLS 211 Quantitative Methods (221) (C- and above)			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
522	PLS 465	Politics of International Finance	3	6	PLS 150 Introduction to International Relations (511) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above)			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Political Science and International Relations	SEDS, SMG, SSH, SoM		
523	PLS 495	Research Practicum in PSIR	1	2	PLS 210 Political Science Research Methods (129) (C- and above) AND PLS 211 Quantitative Methods (221) (C- and above)			Instructor's Permission Required. Registration through Add Course form only!			
524	PLS 510	Advanced Research I	4	8				Political Science and International Relations	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
525	PLS 522	Just War Theory	4	8				Political Science and International Relations	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
526	PLS 526	Hannah Arendt on Power, Violence, and Revolution	4	8		PLS 426 Hannah Arendt on Power, Violence, and Revolution (5398) (C- and above)		Political Science and International Relations	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
527	PLS 534	Text Analysis and Political Communication in the Information Age	4	8	PLS 510 Advanced Research I (1946) (C- and above) AND PLS 511 Advanced Research I (1631) (C- and above)			Political Science and International Relations	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
528	PLS 541	Advanced Topics in Comparative Politics	4	8				Political Science and International Relations	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		

529	PLS 551	Advanced Topics in International Relations	4	8			Political Science and International Relations	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
530	PLS 565	Politics of International Finance	4	8			Political Science and International Relations	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
531	PLS 596	Thesis Preparation	2	4	PLS 540 Core Seminar in Comparative Politics (1374) (C+ and above) OR PLS 550 Core Seminar in IR (1372) (C+ and above) AND PLS 511 Advanced Research I (1631) (C+ and above)		1 year Gr SSH Political Science and International Relations			
532	PLS 599	MA Thesis II	10	20			2 year Gr SSH Political Science and International Relations			
SSH										
533	SSH 300	School of Sciences and Humanities Internship	3	6			Instructor's Permission Required. Registration through Add Course form only!			
534	SSH 301	School of Sciences and Humanities Internship: Second Experience	3	6			Instructor's Permission Required. Registration through Add Course form only! Deadline - 18.12.22			
535	SSH 398	Independent Study	1	2			Instructor's Permission Required. Registration through Add Course form only!			
Sociology and Anthropology										
536	ANT 110	Introduction to Sociocultural Anthropology	3	6			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Anthropology, SoM, Sociology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	2 year UG SSH	SEDS, SMG, SSH	
537	ANT 160	Introduction to Biological Anthropology	3	6		ANT 361 Human Evolution: Bones, Stones and Genomes (160) (C- and above)	5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Anthropology, SoM, Sociology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	2 year UG SSH	SEDS, SMG, SSH	
538	ANT 232	Life, Death and Economy: Archaeology of Central Asia	3	6			Anthropology, Sociology	SSH	SEDS, SMG, SoM	
539	ANT 270	Anthropology of Warfare	3	6			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Anthropology, Sociology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	2 year UG SSH	SEDS, SMG, SSH, SoM	
540	ANT 306	Anthropology of Performance	3	6			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Anthropology, Sociology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	2 year UG SSH	SEDS, SMG, SSH, SoM	
541	ANT 375	Inner Asian Frontiers of China: A Cultural Perspective	3	6			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Anthropology, Sociology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	2 year UG SSH	SEDS, SMG, SSH, SoM	
542	ANT 400	Research Assistance in Anthropology	1	2			Anthropology, Sociology			
543	ANT 401	Research Assistance in Anthropology	1	2			Anthropology, Sociology			
544	ANT 402	Research Assistance in Anthropology	1	2			Anthropology, Sociology			
545	ANT 420	Materiality and Eurasian Society	3	6	Subject "ANT" BETWEEN 200 and 399 OR Subject "ANT" BETWEEN 200 and 399 OR Subject "SOC" BETWEEN 200 and 399 OR Subject "SOC" BETWEEN 200 and 399		5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Anthropology, Sociology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	2 year UG SSH	SEDS, SMG, SSH, SoM	
546	ANT 499	Capstone Seminar II	3	6	ANT 498 Capstone Seminar I (2965) (C- and above)		4 year UG SSH Anthropology			
547	SOC 101	Introduction to Sociology	3	6			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Anthropology, SoM, Sociology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	2 year UG SSH, 3 year UG SSH Biological Sciences	SEDS, SMG, SSH	

548	SOC 201	Social Science Research Methods	3	6			Sociology	SSH	SEDS, SMG, SoM	
549	SOC 203	Quantitative Methods in Sociology	3	6			Sociology	SSH	SEDS, SMG, SoM	
550	SOC 210	Gender and Society	3	6			Sociology	SSH	SEDS, SMG, SoM	
551	SOC 213	Work and Society	3	6			Sociology	SSH	SEDS, SMG, SoM	
552	SOC 215	Sociology of Race and Ethnicity	3	6			Sociology	SSH	SEDS, SMG, SoM	
553	SOC 217	Sociology of the Family	3	6			Sociology	SSH	SEDS, SMG, SoM	
554	SOC 220	Science, Technology, and Society	3	6			Sociology	SSH	SEDS, SMG, SoM	
555	SOC 221	International Migration	3	6			Sociology	SSH	SEDS, SMG, SoM	
556	SOC 301	Classical Sociological Theory	3	6	SOC 101 Introduction to Sociology (508) (C- and above) OR SOC 115 Global Social Problems (1032) (C- and above) OR ANT 110 Introduction to Sociocultural Anthropology (501) (C- and above)		Sociology	SSH	SEDS, SMG, SoM	
557	SOC 310	Social Inequality	3	6	SOC 101 Introduction to Sociology (508) (C- and above) OR SOC 115 Global Social Problems (1032) (C- and above)		Sociology	SSH	SEDS, SMG, SoM	
558	SOC 402	Research Assistance in Sociology	1	2			Anthropology, Sociology			
559	SOC 411	Citizenship in Eurasia: Political Sociology of Civic Belonging	3	6	SOC 101 Introduction to Sociology (508) (C- and above) OR SOC 115 Global Social Problems (1032) (C- and above) OR SOC 180 Introducing Kazakhstan: from the Past to the Future (5063) (C- and above) OR SOC 201 Social Science Research Methods (1341) (C- and above) OR SOC 301 Classical Sociological Theory (683) (C- and above)		Sociology	SSH	SEDS, SMG, SoM	
560	SOC 415	Social Problems and Issues in Eurasia	3	6			Sociology	SSH	SEDS, SMG, SoM	
561	SOC 420	Applied Policy Analysis: Tools and Perspectives	3	6	SOC 101 Introduction to Sociology (508) (C and above)		4 year UG SSH Sociology, Anthropology, Sociology			
562	SOC 499	Capstone Seminar II	3	6	SOC 498 Capstone Seminar Part I (3043) (C- and above)		4 year UG SSH Sociology			
563	SOC 511	Citizenship in Eurasia: Political Sociology of Civic Belonging	4	8			4 year UG SSH Sociology, Economics, Eurasian Studies, Political Science and International Relations			
564	SOC 515	Social Problems and Issues in Eurasia	4	8			4 year UG SSH Sociology, Economics, Eurasian Studies, Political Science and International Relations			
Sociology and Anthropology, Sociology and Anthropology										
565	ANT 214/SOC 214	Qualitative Methods	3	6			Anthropology, Sociology	SSH	SEDS, SMG, SoM	
566	ANT 386/SOC 386	Social Challenges of Climate Change	3	6			Anthropology, Sociology	SSH	SEDS, SMG, SoM	
567	SOC 212/ANT 285	Food and Society	3	6			5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), 6 year UG SEDS, 6 year UG SSH, 6 year UG SSH (pending graduation), Anthropology, Sociology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	2 year UG SSH	SEDS, SMG, SSH, SoM	
SEDS										
Chemical and Materials Engineering										
568	CHME 202	Fluid Mechanics	3	6			2 year UG SEDS Chemical and Materials Engineering	4 year UG SEDS Chemical and Materials Engineering	3 year UG SEDS Chemical and Materials Engineering	
569	CHME 203	Organic and Polymer Chemistry	3	6	CHME 222 Inorganic and Analytical Chemistry (5039) (D and above)		2 year UG SEDS Chemical and Materials Engineering	4 year UG SEDS Chemical and Materials Engineering	3 year UG SEDS Chemical and Materials Engineering	
570	CHME 303	Separation Processes	3	6	CHME 200 Basic Principles and Calculations in Chemical Engineering (5038) (D and above) AND CHME 201 Chemical Engineering Thermodynamics (5007) (D and above)		3 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		

571	CHME 304	Chemical Reaction Engineering	3	6	CHME 200 Basic Principles and Calculations in Chemical Engineering (5038) (D and above)			3 year UG SEDS Chemical and Materials Engineering	4 year UG SEDS Chemical and Materials Engineering		
572	CHME 305L	Chemical Engineering Laboratory I	3	6	CHME 201 Chemical Engineering Thermodynamics (5007) (D and above) AND CHME 202 Fluid Mechanics (5543) (D and above) AND CHME 300 Heat and Mass Transfer (5952) (D and above)			2 year UG SEDS Chemical and Materials Engineering	4 year UG SEDS Chemical and Materials Engineering	3 year UG SEDS Chemical and Materials Engineering	
573	CHME 352	Research Practice	3	6				3 year UG SEDS Chemical and Materials Engineering	4 year UG SEDS Chemical and Materials Engineering		
574	CHME 402	Materials Chemistry	3	6				4 year UG SEDS Chemical and Materials Engineering	5 year UG SEDS Civil and Environmental Engineering		
575	CHME 403	Chemical Process Control and Safety	3	6				4 year UG SEDS Chemical and Materials Engineering	5 year UG SEDS Chemical and Materials Engineering, 5 year UG SEDS Civil and Environmental Engineering		
576	CHME 421	Tissue Engineering	3	6				4 year UG SEDS Chemical and Materials Engineering	3 year UG SEDS Chemical and Materials Engineering		
577	CHME 454	Transport Phenomena and Operations	3	6				4 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Civil and Environmental Engineering	3 year UG SEDS Mechanical and Aerospace Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering		
578	CHME 461	Powder technology	3	6				4 year UG SEDS Chemical and Materials Engineering	3 year UG SEDS Chemical and Materials Engineering		
579	DCHME 700-0	Thesis Research	0	0				Chemical Engineering			
580	DCHME 701	Current Research Literature	4	8				Chemical Engineering			
581	DCHME 752	Polymer Melt Fluid Mechanics and Processing	4	8				Chemical Engineering			
582	DCHME 757	Advanced Chemical Engineering Thermodynamics	4	8				Chemical Engineering			
583	DCHME 763	Advanced Heat and Mass Transfer	4	8				Chemical Engineering			
584	DCHME 766	Advanced Energy Materials and Their Application	4	8				Chemical Engineering			
585	MBME 600	Research Seminar	3	6				Biomedical Engineering	SEDS		
586	MBME 602	Master Thesis II	12	24	MBME 601 Master Thesis I (5953) (P)			Biomedical Engineering	SEDS		
587	MBME 607	Advanced Tissue Engineering	3	6				Biomedical Engineering	SEDS		
588	MBME 700	Strategies for Controlled Topical Delivery of Drugs	3	6				Biomedical Engineering	SEDS		
589	MBME 708	Biomedical Imaging	3	6				Biomedical Engineering	SEDS		
590	MCHME 600	Research Seminar	3	6				Chemical and Materials Engineering	SEDS		
591	MCHME 602	MSc Thesis II	12	24				Chemical and Materials Engineering	SEDS		
592	MCHME 606	Advanced Heat and Mass Transfer	3	6				Chemical and Materials Engineering	SEDS		
593	MCHME 701	Advanced Chemical Thermodynamics	3	6				Chemical and Materials Engineering	SEDS		
594	MCHME 707	Polymer Melt Fluid Mechanics and Processing	3	6				Chemical and Materials Engineering	SEDS		
595	MCHME 713	Advanced Energy Materials and their Applications	3	6				Chemical and Materials Engineering	SEDS		

Civil Engineering

596	MSC 600	Research Methods and Ethics	3	6			1 year Gr SEDS Biomedical Engineering, 1 year Gr SEDS Chemical and Materials Engineering, 1 year Gr SEDS Civil and Environmental Engineering, 1 year Gr SEDS Electrical and Computer Engineering, 1 year Gr SEDS Mechanical and Aerospace Engineering	2 year Gr SEDS Biomedical Engineering, 2 year Gr SEDS Chemical and Materials Engineering, 2 year Gr SEDS Civil and Environmental Engineering, 2 year Gr SEDS Mechanical and Aerospace Engineering	SMG	
597	MSC 601	Technical Communication	3	6			Civil and Environmental Engineering, Electrical and Computer Engineering, Mechanical and Aerospace Engineering	SEDS	SMG	
Civil and Environmental Engineering										
598	CEE 201	Environmental Chemistry	3	6			Instructor's Permission Required. Registration through Add Course form only!			
599	CEE 202	Environmental Engineering	3	6	CEE 201 Environmental Chemistry (4999) (D and above)		2 year UG SEDS Civil and Environmental Engineering	3 year UG SEDS Civil and Environmental Engineering		4 year UG SEDS Civil and Environmental Engineering
600	CEE 203	Structural Analysis	3	6	MAE 200 Structural Mechanics I (5010) (D and above) OR CEE 200 Structural Mechanics I (5005) (D and above)		2 year UG SEDS Civil and Environmental Engineering	3 year UG SEDS Civil and Environmental Engineering		4 year UG SEDS Civil and Environmental Engineering, 5 year UG SEDS Civil and Environmental Engineering
601	CEE 301	Structural Design - Steel	3	6	CEE 203 Structural Analysis (5500) (D and above)		3 year UG SEDS Civil and Environmental Engineering	4 year UG SEDS Civil and Environmental Engineering, 5 year UG SEDS Civil and Environmental Engineering		
602	CEE 303	Geotechnical Design	3	6	CEE 302 Geotechnical Engineering (5896) (D and above)		3 year UG SEDS Civil and Environmental Engineering	4 year UG SEDS Civil and Environmental Engineering, 5 year UG SEDS Civil and Environmental Engineering		
603	CEE 305	Hydraulics and Hydrology	3	6	MAE 300 Fluid Mechanics I (5926) (D and above) OR EME 275 Fluid Mechanics I (1988) (D and above) OR CEE 304 Fluid Mechanics (6348) (D and above)		3 year UG SEDS Civil and Environmental Engineering	4 year UG SEDS Civil and Environmental Engineering, 5 year UG SEDS Civil and Environmental Engineering		
604	CEE 350	Water and Wastewater Treatment Processes	3	6	CEE 201 Environmental Chemistry (4999) (D and above) AND CEE 202 Environmental Engineering (5499) (D and above)		3 year UG SEDS Civil and Environmental Engineering	4 year UG SEDS Civil and Environmental Engineering, 5 year UG SEDS Civil and Environmental Engineering		
605	CEE 352	Engineering geology	3	6			3 year UG SEDS Civil and Environmental Engineering	4 year UG SEDS Civil and Environmental Engineering, 5 year UG SEDS Civil and Environmental Engineering		
606	CEE 400	Transportation Engineering	3	6	CEE 204 Civil Engineering CAD and Surveying (5002) (D and above)		4 year UG SEDS Civil and Environmental Engineering	5 year UG SEDS Civil and Environmental Engineering		
607	CEE 457	Air Quality Management	3	6			4 year UG SEDS Civil and Environmental Engineering	5 year UG SEDS Civil and Environmental Engineering		
608	CEE 458	Modern Information Technology in Construction	3	6	CEE 204 Civil Engineering CAD and Surveying (5002) (D and above)		3 year UG SEDS Civil and Environmental Engineering	4 year UG SEDS Civil and Environmental Engineering, 5 year UG SEDS Civil and Environmental Engineering		
609	CEE 463	Individual Research Project in Civil & Environmental Engineering I	3	6			4 year UG SEDS Civil and Environmental Engineering			
610	CEE 464	Individual Research Project in Civil and Environmental Engineering II	3	6	CEE 463 Individual Research Project in Civil & Environmental Engineering I (6594) (C and above)		4 year UG SEDS Civil and Environmental Engineering			
611	CEE 466	Introduction to Finite Element Methods	3	6	CEE 200 Structural Mechanics I (5005) (D and above)		4 year UG SEDS Civil and Environmental Engineering	5 year UG SEDS Civil and Environmental Engineering		
612	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 Civil and Environmental Engineering		
613	CEE 468	Structural Design - Concrete II	3	6	CEE 300 Structural Design - Concrete (5895) (C- and above)		4 year UG SEDS Civil and Environmental Engineering	5 year UG SEDS Civil and Environmental Engineering		
614	DCEE 700	Thesis Research	89	178						
615	DCEE 700-0	Thesis Research	0	0			Civil Engineering			

616	DCEE 701	Current Research Literature	4	8				2 year PhD SEDS Civil Engineering	Civil Engineering		
617	DCEE 751	Structural Dynamics and Earthquake Engineering	4	8				1 year PhD SEDS Civil Engineering	2 year PhD SEDS Civil Engineering		
618	DCEE 752	Advanced Concrete Technology	4	8				1 year PhD SEDS Civil Engineering	2 year PhD SEDS Civil Engineering		
619	DCEE 755	Contaminated Site Management and Soil Treatment Technologies	4	8				1 year PhD SEDS Civil Engineering	2 year PhD SEDS Civil Engineering		
620	DCEE 762	Advanced Project Management	4	8				1 year PhD SEDS Civil Engineering, Civil Engineering	2 year PhD SEDS Civil Engineering		
621	DCEE 771	Soil Improvement and Stabilization	4	8				1 year PhD SEDS Civil Engineering	2 year PhD SEDS Civil Engineering		
622	EMEM 510	Managerial Accounting	2	4				Engineering Management			
623	EMEM 511	Business Strategy	2	4				Engineering Management			
624	EMEM 513	Entrepreneurship	2	4				Engineering Management			
625	EMEM 514	Finance	2	4				Engineering Management			
626	EMEM 516	Management of Organizations	2	4				Engineering Management			
627	EMEM 517	Marketing	2	4				Engineering Management			
628	EMEM 527	Globalization and Engineering	3	6				Engineering Management			
629	EMEM 542	Production and Service Operations Management	3	6				Engineering Management			
630	EMEM 545	Business Communication	2	4				Engineering Management			
631	EMEM 548	Understanding and Predicting Consumer Behavior	2	4				Engineering Management			
632	EMEM 549	Capstone Project I	3	6				Instructor's Permission Required. Registration through Add Course form only!			
633	EMEM 550	Capstone Project II	5	10				2 year Gr SEDS Engineering Management			
634	MCEE 600	Research Seminar	3	6				1 year Gr SEDS Civil and Environmental Engineering	2 year Gr SEDS Civil and Environmental Engineering		
635	MCEE 602	MSc Thesis II	12	24				2 year Gr SEDS Civil and Environmental Engineering			
636	MCEE 606	Advanced Project Management	3	6				1 year Gr SEDS Civil and Environmental Engineering			
637	MCEE 700	Structural Dynamics and Earthquake Engineering	3	6				1 year Gr SEDS Civil and Environmental Engineering	2 year Gr SEDS Civil and Environmental Engineering		
638	MCEE 701	Advanced Concrete Technology	3	6				1 year Gr SEDS Civil and Environmental Engineering	2 year Gr SEDS Civil and Environmental Engineering		
639	MCEE 704	Contaminated Site Management and Soil Treatment Technologies	3	6				1 year Gr SEDS Civil and Environmental Engineering	2 year Gr SEDS Civil and Environmental Engineering		
640	MCEE 711	Soil Improvement and Stabilization	3	6				1 year Gr SEDS Civil and Environmental Engineering	2 year Gr SEDS Civil and Environmental Engineering		

Computer Science

641	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, SoM			
642	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)	1 year UG SOM, 2 year UG SOM, 3 year UG SOM, 4 year UG SOM, Biological Sciences, Chemistry, Mathematics	SSH		
643	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	Physics, Undeclared SEDS	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM	
644	CSCI 152	Performance and Data Structures	4	8	CSCI 151 Programming for Scientists and Engineers (192) (C- and above) OR ENG 101 Programming for Engineers (4517) (B- and above)			Computer Science, Robotics Engineering, Robotics and Mechatronics	Undeclared SEDS, Undeclared SSH	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM	
645	CSCI 245	System Analysis and Design	3	6	CSCI 152 Performance and Data Structures (489) (C- and above)			Computer Science			
646	CSCI 262	Software Project Management	3	6	CSCI 152 Performance and Data Structures (489) (C- and above)			Computer Science			
647	CSCI 270	Algorithms	3	6	CSCI 152 Performance and Data Structures (489) (C- and above)	MATH 251 Discrete Mathematics (85) (D and above)		Computer Science			
648	CSCI 272	Formal Languages	3	6	CSCI 151 Programming for Scientists and Engineers (192) (C- and above) OR ENG 101 Programming for Engineers (4517) (B- and above)	MATH 251 Discrete Mathematics (85) (D and above)		Computer Science			
649	CSCI 281	Human-Computer Interaction	3	6	CSCI 152 Performance and Data Structures (489) (C- and above)			Computer Science			

650	CSCI 307	Research Methods	3	6				3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science			
651	CSCI 325	Introduction to Parallel Systems and Graphics Processing Unit Programming	3	6	CSCI 332 Operating Systems (490) (C- and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science			
652	CSCI 332	Operating Systems	3	6	CSCI 231 Computer Systems and Organization (194) (C- and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science			
653	CSCI 333	Computer Networks	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			
654	CSCI 409	Senior Project II	3	6	CSCI 408 Senior Project I (1481) (C- and above)			4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science			
655	CSCI 447	Machine Learning: Theory and Practice	3	6	MATH 273 Linear Algebra with Applications (84) (C and above) AND MATH 321 Probability (482) (C and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science			
656	CSCI 462	Open Source Software	3	6	CSCI 361 Software Engineering (640) (C- and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science			
657	CSCI 490	Brain Computer Interface	3	6	MATH 273 Linear Algebra with Applications (84) (C and above) AND MATH 321 Probability (482) (C and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science			
658	CSCI 495	Connectionist Models of Computation	3	6	MATH 251 Discrete Mathematics (85) (C- and above)			Computer Science			
659	CSCI 502	Hardware Software Co-Design	3	6	CSCI 501 Software Principles and Practice (2408) (C- and above)			Computer Science, Robotics			
660	CSCI 545	Big Data Analytics	3	6				Data Science	Computer Science	Robotics	
661	CSCI 575	Formal Methods and Applications	3	6				Computer Science, Data Science		Robotics	
662	CSCI 581	Acquisition and Analysis of Biomedical Data	3	6				Computer Science, Data Science		Robotics	
663	CSCI 585	Computer Vision	3	6				Computer Science, Data Science		Robotics	
664	CSCI 591	Advanced Artificial Intelligence	3	6	CSCI 501 Software Principles and Practice (2408) (C- and above) OR DS 501 Fundamentals of Data Science (5218) (C- and above)			Computer Science, Data Science		Robotics	
665	CSCI 694	Thesis	15	30				2 year Gr SEDS Computer Science			
666	CSCI 700-0	Thesis Research	0	0				Computer Science			
667	CSCI 702	Advanced Hardware/Software Co-Design	4	8				Computer Science , Robotics Engineering			
668	CSCI 722	Current Research Literature	4	8				Computer Science			
669	CSCI 745	Advanced Big Data Analytics	4	8				Computer Science	Chemical Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, Robotics Engineering, Science, Engineering and Technology		
670	CSCI 775	Advanced Formal Methods and Applications	4	8				GSB, GSE, GSPP, SEDS, SMG, SSH, SoM			
671	CSCI 781	Advanced Acquisition and Analysis of Biomedical Data	4	8				Computer Science	Chemical Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, Robotics Engineering, Science, Engineering and Technology		
672	CSCI 785	Advanced Computer Vision	4	8				Computer Science	Chemical Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, Science, Engineering and Technology		

673	CSCI 791	Advanced Artificial Reasoning and Problem solving	4	8				Chemical Engineering, Civil Engineering, Computer Science , Electrical Engineering, Mechanical Engineering, Robotics Engineering, Science, Engineering and Technology			
674	DS 504	Data Mining and Decision Support	3	6				Data Science	Computer Science		
675	DS 509	Information Retrieval	3	6	DS 501 Fundamentals of Data Science (5218) (C- and above) OR CSCI 501 Software Principles and Practice (2408) (C- and above)			SEDS, SMG, SSH, SoM			
676	DS 694	Thesis	15	30	DS 693 Thesis Proposal (5915) (P)			2 year Gr SEDS Data Science			
677	DS 709	Advanced Information Retrieval	4	8				GSB, GSE, GSPP, SEDS, SMG, SSH, SoM			
678	SEDS 502	Teaching Practicum	3	6					Computer Science, Data Science, Robotics		
679	SEDS 592	Research Seminar	3	6					Computer Science, Data Science, Robotics		
Electrical and Computer Engineering											
680	DELCE 700-0	Thesis Research	0	0				Electrical Engineering	Chemical Engineering, Civil Engineering, Computer Science , Mechanical Engineering, Robotics Engineering, Science, Engineering and Technology		
681	DELCE 701	Current Research Literature	4	8				Electrical Engineering	Chemical Engineering, Civil Engineering, Computer Science , Mechanical Engineering, Robotics Engineering, Science, Engineering and Technology		
682	DELCE 759	Advanced Pattern Recognition and Machine Learning	4	8				Electrical Engineering	Chemical Engineering, Civil Engineering, Computer Science , Mechanical Engineering, Robotics Engineering, Science, Engineering and Technology		
683	DELCE 763	Advanced Electronic Circuits	4	8				Electrical Engineering	Chemical Engineering, Civil Engineering, Computer Science , Mechanical Engineering, Robotics Engineering, Science, Engineering and Technology		
684	ELCE 201	Circuit Theory	3	6	ELCE 200 Introduction to Electrical Circuits (4991) (C- and above)			2 year UG SEDS Electrical and Computer Engineering	3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	
685	ELCE 201L	Circuit Theory Laboratory	1	2		ELCE 201 Circuit Theory (5507) (D and above)		2 year UG SEDS Electrical and Computer Engineering	3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	
686	ELCE 202	Digital Logic Design	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) AND ENG 101 Programming for Engineers (4517) (C- and above)			2 year UG SEDS Electrical and Computer Engineering	3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	
687	ELCE 202L	Digital Logic Design Laboratory	1	2		ELCE 202 Digital Logic Design (4992) (D and above)		2 year UG SEDS Electrical and Computer Engineering	3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	

688	ELCE 300	Microprocessor Systems	3	6	ELCE 202 Digital Logic Design (4992) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	1 year UG SEDS Electrical and Computer Engineering, 2 year UG SEDS Electrical and Computer Engineering, 5 year UG SEDS Electrical and Computer Engineering, Electrical and Computer Engineering
689	ELCE 300L	Microprocessor Systems Laboratory	1	2		ELCE 300 Microprocessor Systems (6183) (C- and above)		3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	1 year UG SEDS Electrical and Computer Engineering, 2 year UG SEDS Electrical and Computer Engineering, 5 year UG SEDS Electrical and Computer Engineering, Electrical and Computer Engineering
690	ELCE 302	Electric Machines	3	6	ELCE 201 Circuit Theory (5507) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	1 year UG SEDS Electrical and Computer Engineering, 2 year UG SEDS Electrical and Computer Engineering, 5 year UG SEDS Electrical and Computer Engineering, Electrical and Computer Engineering
691	ELCE 302L	Electrical Machines Laboratory	1	2	ELCE 201 Circuit Theory (5507) (C- and above)	ELCE 302 Electric Machines (5919) (C- and above)		3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	1 year UG SEDS Electrical and Computer Engineering, 2 year UG SEDS Electrical and Computer Engineering, 5 year UG SEDS Electrical and Computer Engineering, Electrical and Computer Engineering
692	ELCE 303	Power System Analysis	3	6	ELCE 200 Introduction to Electrical Circuits (4991) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	1 year UG SEDS Electrical and Computer Engineering, 2 year UG SEDS Electrical and Computer Engineering, 5 year UG SEDS Electrical and Computer Engineering, Electrical and Computer Engineering

693	ELCE 305	Data Structures and Algorithms	3	6	CSCI 151 Programming for Scientists and Engineers (192) (C- and above) OR ENG 101 Programming for Engineers (4517) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	1 year UG SEDS Electrical and Computer Engineering, 2 year UG SEDS Electrical and Computer Engineering, 5 year UG SEDS Electrical and Computer Engineering, Electrical and Computer Engineering	
694	ELCE 308	Communication Systems	3	6	ELCE 203 Signals and Systems (4993) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	1 year UG SEDS Electrical and Computer Engineering, 2 year UG SEDS Electrical and Computer Engineering, 5 year UG SEDS Electrical and Computer Engineering, Electrical and Computer Engineering	
695	ELCE 309	Individual Study	3	6				3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	1 year UG SEDS Electrical and Computer Engineering, 2 year UG SEDS Electrical and Computer Engineering, 5 year UG SEDS Electrical and Computer Engineering, Electrical and Computer Engineering	
696	ELCE 310L	Electronics Instrumentation and Measurement	1	2	ELCE 201 Circuit Theory (5507) (C- and above)	ELCE 301 Electronic Circuits (5918) (C- and above)		3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	1 year UG SEDS Electrical and Computer Engineering, 2 year UG SEDS Electrical and Computer Engineering, 5 year UG SEDS Electrical and Computer Engineering, Electrical and Computer Engineering	
697	ELCE 403	Introduction to Adaptive Signal Processing	3	6	ELCE 307 Digital Signal Processing (5921) (C- and above)			5 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering	
698	ELCE 458	Numerical Optimization Techniques and Computer Applications	3	6	ENG 200 Engineering Mathematics III (Differential Equations and Linear Algebra) (5009) (C- and above)			5 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering	
699	ELCE 459	Design of Application Specific Electronic Circuits	3	6	ELCE 301 Electronic Circuits (5918) (C- and above)			5 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering	
700	ELCE 486	Photonics for Engineering	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)			5 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering	
701	MECE 600	Research Seminar	3	6				1 year Gr SEDS Electrical and Computer Engineering	2 year Gr SEDS Electrical and Computer Engineering	SEDS	
702	MECE 602	Master Thesis II	12	24				1 year Gr SEDS Electrical and Computer Engineering	2 year Gr SEDS Electrical and Computer Engineering	SEDS	
703	MECE 608	Energy Systems Operations and Planning	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering	Electrical and Computer Engineering	

704	MECE 704	Fundamentals of Signal Processing	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering	Electrical and Computer Engineering	
705	MECE 707	Advanced Electronic Circuits	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering	Electrical and Computer Engineering	
706	MECE 716	Adaptive Signal Processing	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering	Electrical and Computer Engineering	
707	MECE 717	Pattern Recognition and Machine Learning	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering	Electrical and Computer Engineering	
Mechanical and Aerospace Engineering											
708	DMAE 700-0	Thesis Research	0	0				Mechanical Engineering			
709	DMAE 702	Current Research Literature	4	8				Mechanical Engineering	Science, Engineering and Technology	Chemical Engineering, Civil Engineering, Computer Science , Electrical Engineering, Robotics Engineering	
710	DMAE 703	Numerical Techniques for Engineers	4	8							
711	DMAE 750	Advanced Statistics and Probability	4	8			MSC 615 Advanced Statistics and Probability (2394) (B- and above)	Mechanical Engineering	Science, Engineering and Technology	Chemical Engineering, Civil Engineering, Computer Science , Electrical Engineering, Robotics Engineering	
712	DMAE 756	Design and Manufacturing with Environmental Concern	4	8				Mechanical Engineering	Science, Engineering and Technology	Chemical Engineering, Civil Engineering, Computer Science , Electrical Engineering, Robotics Engineering	
713	DMAE 769	Advanced Computational Fluid Dynamics and Heat Transfer in Mechanical Engineering	4	8				Mechanical Engineering	Science, Engineering and Technology	Chemical Engineering, Civil Engineering, Computer Science , Electrical Engineering, Robotics Engineering	
714	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, 2 year UG SMG, Undeclared SMG	2 year UG SEDS Electrical and Computer Engineering, 3 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Computer Engineering, 5 year UG SEDS Electrical and Computer Engineering	SEDS	
715	ENG 102	Engineering Materials I	3	6				1 year UG SEDS Civil and Environmental Engineering, 1 year UG SEDS Mechanical and Aerospace Engineering, Undeclared SEDS	Civil and Environmental Engineering, Mechanical and Aerospace Engineering		

716	ENG 103	Engineering Materials II	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 Undeclared	2 year UG SEDS Chemical and Materials Engineering, 2 year UG SEDS Electrical and Computer Engineering, 3 year UG SEDS Chemical and Materials Engineering, 3 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Electrical and Computer Engineering, 5 year UG SEDS Chemical and Materials Engineering, 5 year UG SEDS Electrical and Computer Engineering, Civil and Environmental Engineering	SEDS	
717	ENG 201	Applied Probability and Statistics	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	SEDS	
718	ENG 202	Numerical Methods in Engineering	3	6	ENG 200 Engineering Mathematics III (Differential Equations and Linear Algebra) (5009) (D and above)			2 year UG SEDS Chemical and Materials Engineering, 2 year UG SEDS Civil and Environmental 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 Mechanical and Aerospace Engineering		
719	ENG 300	Interdisciplinary Project	3	6				Instructor's Permission Required. Registration through Add Course form only!			
720	ENG 400	Capstone Project	3	6				4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Electronic Engineering, 4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering	4 year UG SEDS Civil and Environmental Engineering, 5 year UG SEDS Chemical and Materials Engineering, 5 year UG SEDS Civil and Environmental Engineering, 5 year UG SEDS Electrical and Computer Engineering, 5 year UG SEDS Electrical and Electronic Engineering, 5 year UG SEDS Mechanical Engineering, 5 year UG SEDS Mechanical and Aerospace Engineering		
721	MAE 205	Material and Manufacturing I	3	6				2 year UG SEDS Mechanical and Aerospace Engineering	3 year UG SEDS Mechanical and Aerospace Engineering	Mechanical and Aerospace Engineering	
722	MAE 206	Engineering Dynamics I	3	6				2 year UG SEDS Mechanical and Aerospace Engineering	3 year UG SEDS Mechanical and Aerospace Engineering	Mechanical and Aerospace Engineering	
723	MAE 305	Fluid Mechanics II	3	6	MAE 300 Fluid Mechanics I (5926) (D and above) OR EME 275 Fluid Mechanics I (1988) (D and above)			3 year UG SEDS Mechanical and Aerospace Engineering	4 year UG SEDS Mechanical and Aerospace Engineering	Mechanical and Aerospace Engineering	
724	MAE 306	Computer Aided Engineering	3	6	ENG 202 Numerical Methods in Engineering (5506) (D and above) AND MAE 201 Computer Aided Design (5011) (D and above)			3 year UG SEDS Mechanical and Aerospace Engineering	4 year UG SEDS Mechanical and Aerospace Engineering	Mechanical and Aerospace Engineering	
725	MAE 307	Engineering Dynamics II	3	6	MAE 206 Engineering Dynamics I (5535) (D and above)			3 year UG SEDS Mechanical and Aerospace Engineering	4 year UG SEDS Mechanical and Aerospace Engineering	Mechanical and Aerospace Engineering	
726	MAE 350	Structural Mechanics II	3	6	MAE 200 Structural Mechanics I (5010) (D and above) OR CEE 200 Structural Mechanics I (5005) (D and above)			3 year UG SEDS Mechanical and Aerospace Engineering	4 year UG SEDS Mechanical and Aerospace Engineering	Mechanical and Aerospace Engineering	

727	MAE 351	Vehicle Propulsion Systems	3	6	MAE 301 Engineering Thermodynamics (5927) (D and above) OR BENG 226 Engineering Thermodynamics (1553) (D and above)			3 year UG SEDS Mechanical and Aerospace Engineering	4 year UG SEDS Mechanical and Aerospace Engineering	Mechanical and Aerospace Engineering	
728	MAE 451	Unmanned Aerial Vehicle Design	3	6	(MAE 303 Control Systems (5929) (D and above) AND MAE 454 Aerodynamics (6576) (D and above)) OR MMAE 603 Modern Control Engineering (4500) (C- and above)			4 year UG SEDS Mechanical and Aerospace Engineering			
729	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	1 year UG SEDS Mechanical and Aerospace Engineering, 2 year UG SEDS Mechanical and Aerospace Engineering, 3 year UG SEDS Mechanical and Aerospace Engineering, 5 year UG SEDS Mechanical and Aerospace Engineering	SEDS	
730	MAE 456	Materials and Manufacturing II	3	6				4 year UG SEDS Mechanical and Aerospace Engineering	1 year UG SEDS Mechanical and Aerospace Engineering, 2 year UG SEDS Mechanical and Aerospace Engineering, 3 year UG SEDS Mechanical and Aerospace Engineering, 5 year UG SEDS Mechanical and Aerospace Engineering	SEDS	
731	MAE 457	Feasibility Analysis of Clean Energy Technologies	3	6				4 year UG SEDS Mechanical and Aerospace Engineering	1 year UG SEDS Mechanical and Aerospace Engineering, 2 year UG SEDS Mechanical and Aerospace Engineering, 3 year UG SEDS Mechanical and Aerospace Engineering, 5 year UG SEDS Mechanical and Aerospace Engineering		
732	MAE 460	Advanced Topics in Computational Fluid Dynamics	3	6	MAE 300 Fluid Mechanics I (5926) (D and above) AND ENG 202 Numerical Methods in Engineering (5506) (D and above)			4 year UG SEDS Mechanical and Aerospace Engineering	1 year UG SEDS Mechanical and Aerospace Engineering, 2 year UG SEDS Mechanical and Aerospace Engineering, 3 year UG SEDS Mechanical and Aerospace Engineering, 5 year UG SEDS Mechanical and Aerospace Engineering	SEDS	
733	MAE 463	Micro-Electro-Mechanical Systems and Microsystems technology	3	6				4 year UG SEDS Mechanical and Aerospace Engineering	1 year UG SEDS Mechanical and Aerospace Engineering, 2 year UG SEDS Mechanical and Aerospace Engineering, 3 year UG SEDS Mechanical and Aerospace Engineering, 5 year UG SEDS Mechanical and Aerospace Engineering	SEDS	
734	MAE 464	Mechanics of Soft Materials	3	6	ENG 102 Engineering Materials I (4708) (D and above)			4 year UG SEDS Mechanical and Aerospace Engineering	1 year UG SEDS Mechanical and Aerospace Engineering, 2 year UG SEDS Mechanical and Aerospace Engineering, 3 year UG SEDS Mechanical and Aerospace Engineering, 5 year UG SEDS Mechanical and Aerospace Engineering	SEDS	
735	MAE 500	Unmanned Aerial Vehicle Design	3	6	MMAE 603 Modern Control Engineering (4500) (C- and above)				1 year Gr SEDS Mechanical and Aerospace Engineering, 2 year Gr SEDS Mechanical and Aerospace Engineering		
736	MMAE 602	Master Thesis II	12	24	MMAE 601 Master Thesis I (5014) (P)			1 year Gr SEDS Mechanical and Aerospace Engineering, 2 year Gr SEDS Mechanical and Aerospace Engineering			
737	MMAE 604	Advanced Computational Fluid Dynamics and Heat Transfer in Mechanical Engineering	3	6				1 year Gr SEDS Mechanical and Aerospace Engineering	2 year Gr SEDS Mechanical and Aerospace Engineering		
738	MMAE 700	Advanced Statistics and Probability	3	6				1 year Gr SEDS Mechanical and Aerospace Engineering	2 year Gr SEDS Mechanical and Aerospace Engineering		
739	MMAE 701	Numerical Techniques for Engineers	3	6				1 year Gr SEDS Mechanical and Aerospace Engineering	2 year Gr SEDS Mechanical and Aerospace Engineering		

740	MMAE 704	Design and Manufacturing with Environmental Concern	3	6			1 year Gr SEDS Mechanical and Aerospace Engineering	2 year Gr SEDS Mechanical and Aerospace Engineering		
741	MMAE 710	Space Structures Design	3	6			1 year Gr SEDS Mechanical and Aerospace Engineering	2 year Gr SEDS Mechanical and Aerospace Engineering		
742	MMAE 716	Digital Transformation Concepts	3	6			2 year Gr SEDS Engineering Management	2 year Gr SEDS Mechanical and Aerospace Engineering	1 year Gr SEDS Mechanical and Aerospace Engineering	
Robotics and Mechatronics										
743	ROBT 202	System Dynamics and Modeling	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) OR PHYS 172 Physics II for Physics Majors with Laboratory (1402) (C- and above))		Robotics Engineering, Robotics and Mechatronics			
744	ROBT 204	Electrical and Electronic Circuits II with Lab	4	8	ROBT 203 Electrical and Electronic Circuits I with Lab (62) (C- and above)		Robotics Engineering, Robotics and Mechatronics			
745	ROBT 206	Microcontrollers with Lab	4	8	CSCI 150 Fundamentals of Programming (1501) (C and above) OR CSCI 151 Programming for Scientists and Engineers (192) (C and above) OR ENG 101 Programming for Engineers (4517) (C and above)		Computer Science, Robotics Engineering, Robotics and Mechatronics			
746	ROBT 304	Electromechanical Systems with lab	4	8	ROBT 204 Electrical and Electronic Circuits II with Lab (491) (C- and above)		Robotics Engineering, Robotics and Mechatronics	SEDS		
747	ROBT 308	Industrial Automation	3	6			Robotics Engineering, Robotics and Mechatronics	SEDS		
748	ROBT 312	Robotics I: Kinematics and Dynamics	3	6	ROBT 201 Mechanics: Statics and Dynamics (475) (C and above) AND MATH 273 Linear Algebra with Applications (84) (C and above)		Robotics Engineering, Robotics and Mechatronics	SEDS		
749	ROBT 402	Robotic/Mechatronic System Design	3	6	ROBT 204 Electrical and Electronic Circuits II with Lab (491) (C- and above) AND ROBT 206 Microcontrollers with Lab (476) (C- and above)		5 year UG SEDS, Robotics Engineering, Robotics and Mechatronics	SEDS		
750	ROBT 491	Graduation Project	3	6			5 year UG SEDS, Robotics Engineering, Robotics and Mechatronics	SEDS		
751	ROBT 502	Robot Perception & Vision	3	6	ROBT 501 Robot Manipulation and Mobility (2263) (C- and above)		Robotics	SEDS		
752	ROBT 692	Thesis	15	30	ROBT 691 Thesis Proposal (5930) (P)			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		
753	ROBT 700-0	Thesis Research	0	0			Robotics Engineering			
School of Engineering										
754	DENG 700-0	Thesis Research	0	0			Science, Engineering and Technology			
755	DENG 791	Doctoral Seminar III	3	6	DENG 790 Doctoral Seminar II (4599) (P)		Science, Engineering and Technology			
756	DENG 793	Doctoral Seminar V	3	6	DENG 792 Doctoral Seminar IV (4601) (P)		Science, Engineering and Technology			
757	DENG 794	Dissertation Research	12	24	DENG 785 PhD Proposal Oral Defence (2604) (P)		Science, Engineering and Technology			
758	DENG 795	Research at Host University	6	12	DENG 785 PhD Proposal Oral Defence (2604) (P)		Science, Engineering and Technology			

759	DENG 796	Thesis Completion	0	0				Science, Engineering and Technology			
760	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			
761	DENG 798	Doctoral Seminar VI	3	6	DENG 793 Doctoral Seminar V (4602) (P)			Science, Engineering and Technology			
762	DENG 799	Doctoral Seminar VII	3	6	DENG 798 Doctoral Seminar VI (4607) (P)			Instructor's Permission Required. Registration through Add Course form only!			