Course Requirements and Registration Priorities
Fall 2025

#	Abbr	Title	Cr(US)	Cr(ECTS)	PreRequisite	CoRequisite	AntiRequisite	1st priority registration	2nd priority registration	3rd priority registration	4th priority registration
CPS											
NUFYP											
1	FEAP 010	Foundation English for Academic Purposes 1	0	0							
2	FLDP 090	Leadership 1	0	0							
3	FMAT 010	Foundation Mathematics 1	0	0							
GSB											
Bachelor of Business Administration											
4	BBA 208	Data Analytics for Business	3	6				Business Administration (UG)			
5	BBA 210	Fundamentals of Marketing	3	6				Business Administration (UG)			
6	BBA 230	Entrepreneurship	3	6				Business Administration (UG)			
7	BBA 399	Internship	3	6				3 year UG GSB Business Administration (UG)			
Economics											
8	ECON 101	Introduction to Microeconomics	3	6				5 year UG SSH (pending graduation), Business Administration (UG), Undeclared SSH	SSH	SEDS, SMG, SoM	
9	ECON 102	Introduction to Macroeconomics	3	6				5 year UG SSH (pending graduation), Undeclared SSH	Business Administration (UG), SSH	SEDS, SMG, SoM	
10	ECON 120	Managerial Economics	3	6				SEDS	Business Administration (UG), SMG, SSH, SoM		
11	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	2 year UG SSH Undeclared	SSH	

12	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	2 year UG SSH Undeclared	SSH	
13	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) OR CSCI 151 Programming for Scientists and Engineers (192) (C- and above) OR CSCI 235 Programming Languages (638) (C- and above) OR CSCI 390 Artificial Intelligence (643) (C- and above) OR MATH 321 Probability (482) (C- and above) OR MATH 322 Mathematical Statistics (1165) (C- and above)			Instructor's Permission Required. Registration through Add Course form only!			
14	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)))			Economics		SSH	

15	ECON 302	Game Theory and Economic Analysis	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above) OR ECON 101 Introduction to Microeconomics (379) (C- and above) AND MATH 251 Discrete Mathematics (85) (C- and above)		PLS 315 Political Game Theory (704) (C- and above)	3 year UG SSH Economics, 5 year UG SSH (pending graduation), 6 year UG SSH (pending graduation)	4 year UG SSH Economics	SSH	
16	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, 5 year UG SSH (pending graduation), 6 year UG SSH (pending graduation)	4 year UG SSH Economics	SSH	
17	ECON 325	International Trade	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above)			3 year UG SSH Economics, 5 year UG SSH (pending graduation), 6 year UG SSH (pending graduation)	4 year UG SSH Economics	SSH	
18	ECON 326	The Economics of Financial Markets	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above)			3 year UG SSH Economics, 5 year UG SSH (pending graduation), 6 year UG SSH (pending graduation)	4 year UG SSH Economics	SSH	
19	ECON 333	Political Economy	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above)			3 year UG SSH Economics, 5 year UG SSH (pending graduation), 6 year UG SSH (pending graduation)	4 year UG SSH Economics	SSH	
20	ECON 399	Independent Study in Economics	3	6				Instructor's Permission Required. Registration through Add Course form only!			
21	ECON 400	Research Assistance in Economics 2	1	2	ECON 300 Research Assistance in Economics (3080) (P)			Instructor's Permission Required. Registration through Add Course form only!			
22	ECON 403	Introduction to Contract Theory and Auctions	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above) AND ECON 301 Econometrics I (664) (C- and above)			Economics		SSH	

23	ECON 414	Advanced Monetary Policy	3	6	(ECON 202 Intermediate Macroeconomics (207) (C- and above) AND ECON 301 Econometrics I (664) (C- and above)) OR (ECON 202 Intermediate Macroeconomics (207) (C- and above) AND MATH 322 Mathematical Statistics (1165) (C- and above))			Economics		SSH	
24	ECON 418	Corporate Finance and Governance	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above) AND (ECON 301 Econometrics I (664) (C- and above) OR MATH 322 Mathematical Statistics (1165) (C- and above))			Economics		SSH	
25	ECON 433	Econometrics II Panel Data	3	6	ECON 301 Econometrics I (664) (C- and above)			Economics		SSH	
26	ECON 449	Quantitative Macroeconomics	3	6	ECON 202 Intermediate Macroeconomics (207) (C- and above) AND ECON 301 Econometrics I (664) (C- and above)			Economics		SSH	
27	ECON 501	Microeconomics I	4	8				Economics		GSB	
28	ECON 502	Macroeconomics I	4	8				Economics			
29	ECON 503	Introduction to Contract Theory and Auctions	4	8				Economics			
30	ECON 511	Mathematics and Statistics	4	8				Economics			
31	ECON 512	Mathematical Economics	4	8				Economics		GSB	
32	ECON 514	Advanced Monetary Policy	4	8	ECON 502 Macroeconomics (2186) (C- and above)			Economics			

33	ECON 518	Corporate Finance and Governance	4	8	ECON 501 Microeconomics (2187) (C- and above)			Economics			
34	ECON 531	Econometrics	4	8	ECON 511 Mathematics and Statistics (2188) (C- and above) AND ECON 512 Mathematical Economics (2154) (C- and above)			Economics			
35	ECON 533	Econometrics II Panel Data	4	8	ECON 531 Econometrics (2505) (C- and above)			Economics			
36	ECON 547	Advanced Game Theory: Mechanism Design	4	8	ECON 501 Microeconomics (2187) (B and above) AND ECON 512 Mathematical Economics (2154) (B and above) AND ECON 521 Microeconomic Theory II (2506) (B and above)			Economics			
37	ECON 548	Structural Methods in Market Design	4	8	ECON 501 Microeconomics (2187) (B and above) AND ECON 512 Mathematical Economics (2154) (B and above) AND ECON 531 Econometrics (2505) (B and above)			Economics			
38	ECON 549	Quantitative Macroeconomics	4	8	ECON 502 Macroeconomics (2186) (C- and above) AND ECON 532 Applied Econometrics (2977) (C- and above)			Economics			
39	ECON 580	Research and Thesis	0	0				Instructor's Permission Required. Registration through Add Course form only!			
40	ECON 589	Thesis I	4	8				Economics			
GSB											

41	BUS 101	Core Course in Business	3	6				Business Administration (UG)	4 year UG SEDS, 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 5 year UG SEDS (pending graduation), 5 year UG SMG (pending graduation), 5 year UG SOM (pending graduation), 5 year UG SSH (pending graduation), 6 year UG SEDS (pending graduation), 6 year UG SMG (pending graduation), 6 year UG SOM (pending graduation), 6 year UG SSH (pending graduation)	SEDS, SMG, SSH, SoM	
42	GSBF 501	Team Building and Business Communications	.5	1				For GSB programs only! Registration by School admin.			
43	GSBF 511	Financial Data Analytics I	2.5	5				For GSB programs only! Registration by School admin.			
44	GSBF 512	Principles of Finance	2.5	5				For GSB programs only! Registration by School admin.			
45	GSBF 515a	Investments I	2.5	5				For GSB programs only! Registration by School admin.			
46	GSBF 517	Macroeconomics for Finance	2.5	5				For GSB programs only! Registration by School admin.			
47	GSBF 520	Empirical Asset Pricing	2.5	5				For GSB programs only! Registration by School admin.			
48	GSBF 523	Special Topics in Corporate Finance	2.5	5				For GSB programs only! Registration by School admin.			
49	GSBF 550A	Master’s Thesis	5	10				For GSB programs only! Registration by School admin.			

50	GSBPHD 01	Foundations of Social Science Research	4	8				Business Administration (PhD)			
51	GSBPHD 04	Core Research Skills I	4	8				Business Administration (PhD)			
52	GSBPHD 05	Subject Specific Course I	4	8				Business Administration (PhD)			
53	GSBPHD 06	Subject Specific Course II	4	8				Business Administration (PhD)			
54	GSBPHD 07	Subject Specific Course III	4	8				Business Administration (PhD)			
55	GSBPHD 14	Thesis Research Progress	0	0				Business Administration (PhD)			
56	GSBPHD 15	Thesis Proposal Presentation	5	10				Business Administration (PhD)			
57	GSBPHD 17	Mathematical Economics	4	8				Business Administration (PhD)			
58	GSBPHD 18	Microeconomics I	4	8				Business Administration (PhD)			
59	MBA 01	Introduction to General Management Principles	2	4				For GSB programs only! Registration by School admin.			
60	MBA 02	Foundations of Financial and Managerial Accounting	3	6				For GSB programs only! Registration by School admin.			
61	MBA 03	Leadership & Communication	3	6				For GSB programs only! Registration by School admin.			
62	MBA 04	Data Analytics for Managers	3	6				For GSB programs only! Registration by School admin.			
63	MBA 06	Economics for Managers	3	6				For GSB programs only! Registration by School admin.			
64	MBA 17	Negotiations	3	6				For GSB programs only! Registration by School admin.			
65	MBA 20	Practicum Project	5	10				For GSB programs only! Registration by School admin.			
66	MBAE 13	Raising Capital	3	6				For GSB programs only! Registration by School admin.			
67	MBAE 16	Project Management	3	6				For GSB programs only! Registration by School admin.			
68	MBAE 18	Consumer Behavior	3	6				For GSB programs only! Registration by School admin.			

69	MBAE 20	Marketing Research	3	6				For GSB programs only! Registration by School admin.			
70	MBAE 21	Project Finance	3	6							
71	MBAE 22	Business Law	3	6				For GSB programs only! Registration by School admin.			
72	MSF 07	Economic Policy in Global Markets	2.5	5				For GSB programs only! Registration by School admin.			
73	MSF 08	Microeconomics for Finance	2.5	5				For GSB programs only! Registration by School admin.			
74	MSF 10	Independent Research	2.5	5				For GSB programs only! Registration by School admin.			
75	MSF 12	Financial Accounting	2.5	5				For GSB programs only! Registration by School admin.			
76	MSF 513b	Industry Insights Initiative	2.5	5				For GSB programs only! Registration by School admin.			
77	MSF 514	Advanced Empirical Methods	2.5	5				For GSB programs only! Registration by School admin.			
GSPP											
GSPP											
78	DPM 604	Economic Applications for Public Managers	4	8				1 year GSPP Doctor of Public Management			
Master in Public Administration											
79	MPA 602	Public Administration in Theory and Practice	4	8				1 year GSPP Public Administration			
80	MPA 603	Economic Applications for Public Managers	4	8				1 year GSPP Public Administration			
81	MPA 605	Research Methods for Public Managers	4	8				1 year GSPP Public Administration			
82	MPA 607	Fiscal Management and Budgeting	4	8				2 year GSPP Public Administration			
83	MPA 699	Master’s Project with Overseas Component	0	0				2 year GSPP Public Administration			
84	MPE 608	Strategic Management and Leadership	4	8				2 year GSPP Public Administration	2 year GSPP Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM	
85	MPE 609	Organizational Behavior in the Public Sector	4	8				2 year GSPP Public Administration	2 year GSPP Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM	

86	MPE 612	Policy Tools for Addressing Inequality and Demographic Change	4	8				2 year GSPP Public Administration, 2 year GSPP Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM		
87	MPE 615	Scientific Reasoning for Policy Research	4	8				2 year GSPP Public Administration	2 year GSPP Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM	
88	MPE 620	Circular Economy Strategy	4	8				2 year GSPP Public Administration	2 year GSPP Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM	
89	MPE 628	Good Governance and Corruption	4	8				2 year GSPP Public Administration	2 year GSPP Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM	
90	MPE 632	Artificial Intelligence and Governance	4	8				2 year GSPP Public Administration	2 year GSPP Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM	
91	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)	2 year GSPP Public Administration	2 year GSPP Public Policy		
92	MPE 646	Communications for Public Leadership	4	8				2 year GSPP Public Administration	2 year GSPP Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM	
93	MPE 651	Agricultural Policy Analysis	4	8				2 year GSPP Public Administration, 2 year GSPP Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM		
94	MPE 660	Health System and Policy	4	8				2 year GSPP Public Administration, 2 year GSPP Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM		
95	MPE 665	Governance Through Networks: Theory and Practice	4	8				2 year GSPP Public Administration	2 year GSPP Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM	
96	MPE 671	Game Theory and Public Policy	4	8				2 year GSPP Public Administration, 2 year GSPP Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM		
97	MPE 685	Water Resources Policy and Management	4	8				2 year GSPP Public Administration	2 year GSPP Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM	
Master in Public Policy											
98	MPP 601	Microeconomics and Public Policy	4	8				1 year GSPP Public Policy			
99	MPP 611	Statistics for Public Policy	4	8				1 year GSPP Public Policy			
100	MPP 613	Policy Research Design and Methods	4	8				1 year GSPP Public Policy			

101	MPP 621	Public Policy and Analysis	4	8				1 year GSPP Public Policy			
102	MPP 631	Politics and Public Policy	4	8				2 year GSPP Public Policy			
103	MPP 699-0	Policy Analysis Exercise with Overseas Component	0	0	MPP 613 Policy Research Design and Methods (1301) (C- and above)			2 year GSPP Public Policy			
PhD in Public Policy											
104	DPE 608	Strategic Management and Leadership	4	8				2 year GSPP PhD Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM		
105	DPE 609	Organizational Behavior in the Public Sector	4	8				2 year GSPP PhD Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM		
106	DPE 612	Policy Tools for Addressing Inequality and Demographic Change	4	8				2 year GSPP PhD Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM		
107	DPE 615	Scientific Reasoning for Policy Research	4	8				2 year GSPP PhD Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM		
108	DPE 620	Circular Economy Strategy	4	8				2 year GSPP PhD Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM		
109	DPE 628	Good Governance and Corruption	4	8				2 year GSPP PhD Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM		
110	DPE 632	Artificial Intelligence and Governance	4	8				2 year GSPP PhD Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM		
111	DPE 646	Communications for Public Leadership	4	8				2 year GSPP PhD Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM		
112	DPE 651	Agricultural Policy Analysis	4	8				2 year GSPP PhD Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM		
113	DPE 660	Health System and Policy	4	8				2 year GSPP PhD Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM		
114	DPE 665	Governance Through Networks: Theory and Practice	4	8				2 year GSPP PhD Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM		
115	DPE 671	Game Theory and Public Policy	4	8				2 year GSPP PhD Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM		
116	DPE 685	Water Resources Policy and Management	4	8				2 year GSPP PhD Public Policy	GSB, GSE, SEDS, SMG, SSH, SoM		
117	DPP 600	Developing Dissertation Research	0	0				Public Policy			
118	DPP 601	Microeconomics in the Public Sector	4	8				1 year GSPP PhD Public Policy			
119	DPP 603	Public Administration and Management	4	8				1 year GSPP Doctor of Public Management, 1 year GSPP PhD Public Policy			
120	DPP 611	Statistics in Public Policy	4	8				1 year GSPP Doctor of Public Management, 1 year GSPP PhD Public Policy			

121	DPP 614	Advanced Quantitative Methods	4	8				2 year GSPP PhD Public Policy			
122	DPP 615	Law, Governance and Public Policy	4	8				1 year GSPP PhD Public Policy			
123	DPP 616	Advanced Qualitative Methods	4	8				2 year GSPP PhD Public Policy			
124	DPP 690-0	Thesis Preparation and Writing	0	0				3 year GSPP PhD Public Policy, 4 year GSPP PhD Public Policy			
GSE											
MA in Multilingual Education											
125	EDML 601	Introduction to Linguistics	3	6				1 year GSE MA in Multil.Education			
126	EDML 602	Academic Literacies for Multilingual Education Professionals I	3	6				1 year GSE MA in Multil.Education			
127	EDML 610	Foundations of Multilingual Education	3	6				1 year GSE MA in Multil.Education			
128	EDML 613	The Multilingual School	3	6				2 year GSE MA in Multil.Education			
129	EDML 614	Multilingual curriculum development and assessment	3	6				2 year GSE MA in Multil.Education			
130	EDML 621	Principles and Methods of Language Education in Multilingual Contexts	3	6							
131	EDML 625	Critical Issues in Multilingual Education in Kazakhstan	3	6				2 year GSE MA in Multil.Education			
132	EDML 627	Application of CLIL in Teaching	3	6				2 year GSE MA in Multil.Education			
133	EDML 694	Thesis Research 2	0	0				2 year GSE MA in Multil.Education			
MSc Educational Leadership HE											
134	EDHE 603	Thesis Seminar 3	3	6				2 year GSE Educ.Leadership			
135	EDHE 625	Fundamentals of Higher Education	3	6				1 year GSE Educ.Leadership			
136	EDHE 627	Student Experience, Learning and Success in Higher Education	3	6				2 year GSE Educ.Leadership			
137	EDHE 631	Sociology of Higher Education	3	6				2 year GSE Educ.Leadership			
138	EDUC 512	English for Thesis Writing I	3	6							
139	EDUC 535	Academic English I	2	4				1 year GSE Educ.Leadership			

140	EDUC 571	Basic Kazakh	3	6				1 year GSE MA in Multil.Education, 1 year GSE PhD Education, 2 year GSE MA in Multil.Education, 2 year GSE PhD Education, 3 year GSE PhD Education, 4 year GSE PhD Education			
141	EDUC 572	Kazakh for Professional Purposes	3	6				1 year GSE MA in Multil.Education, 1 year GSE PhD Education, 2 year GSE MA in Multil.Education, 2 year GSE PhD Education, 3 year GSE PhD Education, 4 year GSE PhD Education			
142	EDUC 581	Basic Kazakh (MSc)	2	4				1 year GSE Educ.Leadership, 2 year GSE Educ.Leadership			
143	EDUC 582	Kazakh for Professional Purposes (MSc)	2	4				1 year GSE Educ.Leadership, 2 year GSE Educ.Leadership			
144	EDUC 602	Educational Context and Reform in Kazakhstan	3	6				1 year GSE MA in Multil.Education			
145	EDUC 606	Introduction to Education Research	2	4				1 year GSE Educ.Leadership			
146	EDUC 607	Research Methods 1	3	6				1 year GSE Educ.Leadership, 1 year GSE MA in Multil.Education			
147	EDUC 617	Contextualizing Education Reform in Kazakhstan and Beyond	3	6				1 year GSE Educ.Leadership			
148	EDUC 627	Psychology of Learning	3	6				2 year GSE Educ.Leadership			
149	EDUC 701	Education Research Methods	3	6				1 year GSE PhD Education			
150	EDUC 709	Introduction to Scholarship in Education	3	6				1 year GSE PhD Education			
151	EDUC 712	Educational Policy and Reform	3	6				1 year GSE PhD Education			
152	EDUC 727	Exploring the Research Topic 1	0	0				1 year GSE PhD Education			
153	EDUC 730	Preparation for Proposal Defence	0	0				2 year GSE PhD Education			

154	EDUC 751	Dissertation Research	0	0				3 year GSE PhD Education, 4 year GSE PhD Education, 5 year GSE PhD Education (pending graduation)			
155	EDUC 753	Thesis Defense	55	110							
156	EDUC 800	International Study	12	24				2 year GSE PhD Education			
MSc Educational Leadership IE											
157	EDIE 603	Thesis Seminar 3	3	6				2 year GSE Educ.Leadership			
158	EDIE 625	Fundamentals of Inclusive Education	3	6				1 year GSE Educ.Leadership			
MSc Educational Leadership SE											
159	EDSE 603	Thesis Seminar 3	3	6				2 year GSE Educ.Leadership			
160	EDSE 621	Education Policy Analysis and Development	3	6				2 year GSE Educ.Leadership			
161	EDSE 625	Fundamentals of School Education	3	6				1 year GSE Educ.Leadership			
Other											
GSPP											
162	T - MCP 004	Public Organizations and Management	4	8							
Other											
163	STUMOB 001	Student Mobility Course	0	0							
164	T - 60040011	Development and Management of the Yellow River Basin	4	8							
165	T - 70590773	Introduction to Sustainable Development	4	8							
166	T - 80160223	Logistics & Supply Chain Management	1	2							
167	T - 80591353	Comparative Governance and Development Practices	4	8							
168	T - 80591633	International Organizations and Global Governance	4	8							
169	T - 80701711	From Tributary System to Post-Cold War Architectures: Evolving Visions of Asian Order	1	2							
170	T - ANT 6065H	Anthropology in/of Troubled Times	4	8							
171	T - BIO 101	General Biology	3	6							

172	T - BSTC 2048	Buddhism and science: view and meditation in the light of physics and neuroscience	3	6							
173	T - COMP 3270	Introduction to Artificial Intelligence	3	6							
174	T - COMP 3297	Software Engineering	3	6							
175	T - COMP 3322	Modern Technologies on WWW	3	6							
176	T - COMP 3330	Interactive Mobile Application Design and Programming	3	6							
177	T - CS 306	Database Systems	3	6							
178	T - CS 308	Software Engineering	3	6							
179	T - CS 310	Mobile Application Development	3	6							
180	T - CS 408	Computer networks	3	6							
181	T - CSCI 2303	Intro to Computer Networks	3	6							
182	T - CSCI 3509	Intro to Software Engineering	3	6							
183	T - CSCI 3613	Artificial Intelligence	3	6							
184	T - CSCI 3613	Artificial Intelligence	3	6							
185	T - CSCI 3615	Database Systems	3	6							
186	T - CSCI 3615	Database Systems	3	6							
187	T - CSCI 4734	Machine Learning	3	6							
188	T - CSCI 4734	Machine Learning	3	6							
189	T - ECHE 240	Engineering Biochemistry	3	6							
190	T - ECHE 301	Computational Methods for Chemical Engineering	3	6							
191	T - ECHE 311	Chemical reaction Engineering	3	6							
192	T - ECON 301	Econometrics	3	6							
193	T - ECON 430	Labor Economics	3	6							

194	T - EEE 303	Microelectronics I and Laboratory	3	6							
195	T - EEE 303L	Microelectronics I and Laboratory	1	2							
196	T - EEE 352	Digital Signal Processing	3	6							
197	T - EEE 431	Power Electronics	3	6							
198	T - ERE 1152H	Topics in European Studies Democracy and Dictatorship	4	8							
199	T - ERE 2001H	Gateway Proseminar in European and Eurasian Studies	4	8							
200	T - ERE 2001H	Gateway Proseminar in European and Eurasian Studies	4	8							
201	T - FIN 301	Financial Management	3	6							
202	T - GER 1820H	The Learning and Teaching of German	4	8							
203	T - GER 1820H	Learning and Teaching of German	4	8							
204	T - GRAD E1023	Organisational Failure & Public Policy Disasters	3	6							
205	T - GRAD E1229	The Political Economy of World Trade	3	6							
206	T - GRAD E1319	Governance and Politics of Artificial Intelligence	3	6							
207	T - GRAD E1354	Data Science & Decision Making	3	6							
208	T - GRAD E1378	Energy Economics	3	6							
209	T - GRAD E1494	Contemporary Russian Politics	3	6							
210	T - GRAD E1497	Military Strategy, Operations & Technology	3	6							
211	T - IE 209	Industrial Operations Management	3	6							
212	T - MATH 1222	Calculus II	3	6							
213	T - MATH 2305	Ordinary Differential Equations	3	6							
214	T - MATH 4700	Numerical Analysis	3	6							
215	T - MATH 4702	Mathematical Foundations of Cryptography	3	6							

216	T - MATH 4702	Mathematical Foundations of Cryptography	3	6							
217	T - MGMT 402	Entrepreneurship	3	6							
218	T - MGT 315	Econometrics	3	6							
219	T - MKTG 301	Introduction to Marketing	3	6							
220	T - MSD 024	Global Development Finance Cooperation	4	8							
221	T - MSD 027	Culture, Creativity and Local Development	4	8							
222	T - MSP 067	Population and Development	4	8							
223	T - MSR 062	Urban and Regional Development	4	8							
224	T - MSZ 004	Data Vizualization	4	8							
225	T - MTH 321	Numerical Analysis	3	6							
226	T - MTH 351	General Topology	3	6							
227	T - PHIL 2390	Philosophy of religion	3	6							
228	T - POLI 3034	Public administration in China	3	6							
229	T - POLI 3047	United States foreign policy	3	6							
230	T - POLI 3052	International relations of East Asia	3	6							
231	T - POLI 3059	China and the world	3	6							
232	T - POLI 3152	Democratic theory	3	6							
233	T - PP 5196	Education Economics and Policy	4	8							
234	T - PP 5234	Economics of Developing Countries	4	8							
235	T - PP 5509	Pensions and Retirement Policies	4	8							
236	T - PP 5510	Governing Cities of Tomorrow	4	8							
237	T - PP 5906	International Economic Development	4	8							

238	T - SLA 1223H	Introduction to Russian Poetry and Poetics	4	8							
239	T - SLA 362	Ethics	3	6							
240	T - SOC 6002H	Topics in Global Migration I	4	8							
241	T - SOCI 1001	Introduction to sociology	3	6							
SoM											
Biological Science											
242	BIOL 101	Introductory Biology	3	6			BIOL 110 Modern Biology I (1070) (C- and above)	5 year UG SSH (pending graduation), Anthropology, Business Administration (UG), Chemistry, Economics, History, Mathematics, Nursing, Physics, Political Science and International Relations, SEDS, SMG, Sociology, Undeclared SSH, World Languages, Literature and Culture			
243	BIOL 105	General Biology	3	6				Biological Sciences	Undeclared SSH		
244	BIOL 110	Modern Biology I	3	6				2 year UG SSH Biological Sciences, Undeclared SSH			
245	BIOL 120	Modern Biology II	3	6	BIOL 110 Modern Biology I (1070) (C and above)			2 year UG SOM Medical Sciences, Biological Sciences, Undeclared SSH			
246	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)		2 year UG SOM Medical Sciences, Biological Sciences, Undeclared SSH			
247	BIOL 230	Human Anatomy and Physiology I	4	8	BIOL 110 Modern Biology I (107) (C and above) OR BIOL 110 Modern Biology I (1070) (C and above)			2 year UG SOM Medical Sciences, Biological Sciences			
248	BIOL 301	Molecular Cell Biology	3	6	BIOL 120 Modern Biology II (1195) (C and above)			2 year UG SOM Medical Sciences, 3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences	Biological Sciences		

249	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)			2 year UG SOM Medical Sciences, 3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences	Biological Sciences		
250	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)		2 year UG SOM Medical Sciences, 3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences	Biological Sciences		
251	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)			2 year UG SOM Medical Sciences, 3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences	Biological Sciences		
252	BIOL 320	Developmental Biology	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)			2 year UG SOM Medical Sciences, 4 year UG SSH Biological Sciences	3 year UG SSH Biological Sciences		
253	BIOL 321	Bioethics	3	6	BIOL 120 Modern Biology II (1195) (C and above)			2 year UG SOM Medical Sciences, 3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences	Biological Sciences		
254	BIOL 340	Introduction to Bioinformatics with Lab	4	8	(BIOL 120 Modern Biology II (1195) (C and above) OR (BIOL 120 Modern Biology II (1195) (C and above) AND BIOL 120L Modern Biology II Laboratory (5443) (C and above))) AND MATH 310 Applied Statistical Methods (82) (C and above)			2 year UG SOM Medical Sciences, Biological Sciences			

255	BIOL 341	Biochemistry I	3	6	CHEM 211 Organic Chemistry I (154) (C and above)			2 year UG SOM Medical Sciences, Biological Sciences			
256	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, Medical Sciences	Biological Sciences		
257	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)			3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences	3 year UG SSH Mathematics, 4 year UG SSH Mathematics, Chemistry, Computer Science		
258	BIOL 370	Genetics	3	6	BIOL 120 Modern Biology II (1195) (C and above)			2 year UG SOM Medical Sciences, 3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences	Biological Sciences		
259	BIOL 380	Biology of Behavior	3	6	BIOL 120 Modern Biology II (1195) (C and above)			2 year UG SOM Medical Sciences, 3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences	Biological Sciences		
260	BIOL 385	Cell signaling: principles and mechanisms	3	6	BIOL 120 Modern Biology II (1195) (C and above)			2 year UG SOM Medical Sciences, Biological Sciences			
261	BIOL 452	Biology of Cancer	3	6	BIOL 231 Human Anatomy and Physiology II (479) (C and above) OR BIOL 301 Molecular Biology of Cell with Lab (1197) (C and above) OR BIOL 331 Human Anatomy and Physiology II (6218) (C and above) OR BIOL 301 Molecular Cell Biology (5809) (C and above)			3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences	Biological Sciences		
262	BIOL 456	Biology Research Design	3	6		BIOL 355 Critical Research Reasoning (1000) (C and above)		4 year UG SSH Biological Sciences	Biological Sciences		

263	BIOL 460	Human Parasitology	3	6	BIOL 305 Introduction to Microbiology with Lab (1642) (C and above) OR BIOL 305 Introduction to Microbiology (5789) (C and above)			2 year UG SOM Medical Sciences, Biological Sciences			
264	BIOL 470	Advanced Cell Biology	3	6	BIOL 120 Modern Biology II (1195) (C and above) AND BIOL 110L Modern Biology I Laboratory (5448) (C and above) AND (BIOL 341 Biochemistry I (2002) (C and above) OR CHEM 341 Biochemistry I (1058) (C and above))			4 year UG SSH Biological Sciences	Biological Sciences, Medical Sciences		
265	BIOL 490	Honors Thesis Research	3	6	BIOL 355 Critical Research Reasoning (1000) (B and above)			Instructor's Permission Required. Registration through Add Course form only!			
266	BIOL 491	Honors Thesis	9	18	BIOL 490 Honors Thesis Research (1581) (C and above)			Instructor's Permission Required. Registration through Add Course form only!			
267	BIOL 520	Statistical Methods in Life Sciences	3	6				Life Sciences			
268	BIOL 550	Structural and Molecular Biology in Health and Disease	3	6				Life Sciences			
269	BIOL 560	Molecular Biology of Prokaryotic Cells	3	6				Life Sciences			
270	BIOL 571	Advanced Cell and Molecular Biology	3	6				Life Sciences			
271	BIOL 592	Research Seminar	3	6				Life Sciences			
272	BIOL 599	Master’s Thesis Research	0	0				Instructor's Permission Required. Registration through Add Course form only!			
273	BIOL 605	Radiation Biology	3	6	BIOL 520 Statistical Methods in Life Sciences (1203) (C and above)			Life Sciences			
274	BIOL 631	Synthetic Biology	3	6				Life Sciences			
275	BIOL 632	Drug Discovery and Design	3	6				Life Sciences			
276	BIOL 634	Advanced Cancer Biology	3	6				Life Sciences			

277	BIOL 691	Master’s Thesis Research Proposal	3	6				2 year Gr SSH Life Sciences			
278	BIOL 800	Doctoral Thesis	90	180							
279	BIOL 800-0	Thesis Research	0	0				Instructor's Permission Required. Registration through Add Course form only!			
280	BIOL 820	Statistical Methods in Life Sciences	3	6				Life Sciences	SoM		
281	BIOL 831	Synthetic Biology	4	8				Life Sciences	SoM		
282	BIOL 832	Drug Discovery and Design	4	8				Life Sciences	SoM		
283	BIOL 834	Advanced Cancer Biology	4	8				Life Sciences	SoM		
284	BIOL 850	Structural and Molecular Biology in Health and Disease	4	8				Life Sciences	SoM		
285	BIOL 860	Molecular Biology of Prokaryotic Cells	4	8				Life Sciences	SoM		
286	BIOL 871	Advanced Cell and Molecular Biology	4	8				Life Sciences	SoM		
MMM											
287	MMMM 608	Molecular Epigenetics in Health and Disease	3	6				2 year Gr SOM Molecular Medicine			
288	MMMM 610	Natural Drugs	3	6				2 year Gr SOM Molecular Medicine, 2 year Gr SOM Pharmacology and Toxicology			
MPTOX											
289	MPTX 506	Systemic Pharmacology II	3	6	MPTX 503 Principles of Pharmacology and Toxicology (5843) (C- and above) AND MSBM 604 Systemic Pharmacology (5844) (C- and above)			2 year Gr SOM Pharmacology and Toxicology			
290	MPTX 602	Current Topics in Pharmacology and Toxicology	3	6	MPTX 503 Principles of Pharmacology and Toxicology (5843) (C- and above) AND MPTX 505 Drug Discovery I (5845) (C- and above)	MSBM 504 Biostatistics and Critical Appraisal (8517) (C- and above)					
291	MPTX 604E	Scientific Writing	3	6				2 year Gr SOM Molecular Medicine			

292	MPTX 606	Molecular Toxicology	3	6				1 year Gr SOM Molecular Medicine, 2 year Gr SOM Molecular Medicine, 2 year Gr SOM Pharmacology and Toxicology			
MSMR											
293	MSMR 603	Master Research Project	8	16				2 year Gr SOM Sports Medicine and Rehabilitation			
Master of Science in Nursing											
294	MSN 501	Theoretical Foundations of Advanced Nursing	3	6				1 year Gr SOM Nursing			
295	MSN 502	Advanced Physical and Health Assessment	3	6				1 year Gr SOM Nursing			
296	MSN 503	Statistics for Nursing Research, Evidence-Based Practice, and Quality Improvement	3	6				1 year Gr SOM Nursing			
297	MSN 504	Informatics and Healthcare Technologies	3	6				1 year Gr SOM Nursing			
298	MSN 505	Health Policy and Advocacy	3	6				1 year Gr SOM Nursing			
Master of Sciences in Biomedicine											
299	MMMM 605	Developmental Biology	3	6				2 year Gr SOM Molecular Medicine			
300	MPTX 603	Introduction to Research Project	6	12							
301	MSBM 501	Bioethics	3	6				1 year Gr SOM Biomedicine			
302	MSBM 502	Organ system and common diseases	3	6				1 year Gr SOM Biomedicine			
303	MSBM 503	Scientific Writing	3	6				1 year Gr SOM Biomedicine			
304	MSBM 504	Biostatistics and Critical Appraisal	3	6				1 year Gr SOM Biomedicine, 2 year Gr SOM Molecular Medicine, 2 year Gr SOM Pharmacology and Toxicology			
305	MSBM 505	Cellular communications	3	6				1 year Gr SOM Biomedicine			
306	MSMR 514	Adaptive Physical Activity	3	6				2 year Gr SOM Sports Medicine and Rehabilitation			
Medical Sciences											
307	NUSM 101	Introduction to Medicine	2	4				1 year UG SOM A Six-Year Medical Program			

308	NUSM 102	Biology for Medical students I with Lab	4	8				1 year UG SOM A Six-Year Medical Program			
309	NUSM 301	Introduction to Immunology, Microbiology and Genetics	3	6	BIOL 120 Modern Biology II (1195) (C and above)			3 year UG SOM Medical Sciences			
310	NUSM 302	Introduction to Statistics for Evidence-Based Practice	3	6	MATH 161 Calculus I (118) (C- and above)			3 year UG SOM Medical Sciences			
311	NUSM 303	Introduction to Anatomy and Histology	3	6	BIOL 120 Modern Biology II (1195) (C and above)			3 year UG SOM Medical Sciences			
312	NUSM 401	Introduction to Being a Physician	2	4	NUSM 310 Capstone Project (7138) (C and above)			4 year UG SOM Medical Sciences			
313	NUSM 402	Medical Anatomy	8	16	NUSM 310 Capstone Project (7138) (C and above)			4 year UG SOM Medical Sciences			
314	NUSM 403	Human Genetics	3	6	NUSM 310 Capstone Project (7138) (C and above)			4 year UG SOM Medical Sciences			
315	NUSM 405	Fuel Metabolism	3	6	NUSM 310 Capstone Project (7138) (C and above)			4 year UG SOM Medical Sciences			
316	NUSM 408	Pharmacology	2	4	NUSM 310 Capstone Project (7138) (C and above)			4 year UG SOM Medical Sciences			
317	NUSM 410	Basics of Medical Interviewing	0	0	NUSM 310 Capstone Project (7138) (C- and above)			4 year UG SOM Medical Sciences			
318	NUSM 411a	Basics of Physical Examination	0	0	NUSM 310 Capstone Project (7138) (C- and above)			4 year UG SOM Medical Sciences			
319	NUSM 412	Evidence-based Medicine I and Biostatistics	0	0	NUSM 310 Capstone Project (7138) (C- and above)			4 year UG SOM Medical Sciences			
320	NUSM 413	English-Russian-Kazakh Medical Terminology	0	0	NUSM 310 Capstone Project (7138) (C- and above)			4 year UG SOM Medical Sciences			
321	NUSM 414	Medical Ethics and Professionalism	0	0	NUSM 310 Capstone Project (7138) (C- and above)			4 year UG SOM Medical Sciences			
Nursing											
322	NUR 205	Psychology for the Health Practitioner	3	6				3 year UG SOM Nursing			
323	NUR 221	Nursing Research: Introduction to Critical Appraisal and Evidence-Based Practice	3	6				3 year UG SOM Nursing			

324	NUR 302	Physical Assessment Across the Lifespan	4	8				1 year UG SOM Nursing			
325	NUR 303	Nursing Care of Older Adults	4	8				1 year UG SOM Nursing			
326	NUR 304	Introduction to Basic Statistics for Evidence Based Practice	3	6				1 year UG SOM Nursing			
327	NUR 308	Enhanced Communication in Professional Nursing	4	8				1 year UG SOM Nursing			
328	NUR 311C	Obstetric Nursing + Clinical	5	10				3 year UG SOM Nursing			
329	NUR 312C	Pediatric Nursing + Clinical: Care of Children and Families	4	8				3 year UG SOM Nursing			
330	NUR 401	Education: Principles and Practice for Teaching in Nursing	4	8				2 year UG SOM Nursing			
331	NUR 403	Data Analytics for Quality Improvement in Healthcare	3	6				2 year UG SOM Nursing			
332	NUR 404	Community and Home Health Nursing	4	8				2 year UG SOM Nursing			
333	NUR 406.1	Medical-Surgical Nursing: Complex Surgical Management	4	8				2 year UG SOM Nursing			
334	NUR 411C	Community and Home Health Nursing and Clinical	4	8				4 year UG SOM Nursing			
335	NUR 412	Geriatric Nursing: Nursing Care of the Older Adult	3	6				4 year UG SOM Nursing			
336	NUR 413C	Medical Surgical Nursing 3 - Management of the Complex and Critically Ill Patient and Clinical	7	14				4 year UG SOM Nursing			
337	NUR 421	Capstone I: Developing a Project Proposal in Nursing	3	6				4 year UG SOM Nursing			
PHD											
338	PHDBS 701	Thesis Research	90	180				4 year PhD SOM BioMed Sciences, 5 year PhD SOM BioMed Sciences (pending graduation)			
339	PHDBS 701-0	Thesis Research	0	0				1 year PhD SOM BioMed Sciences, 2 year PhD SOM BioMed Sciences, 3 year PhD SOM BioMed Sciences, 4 year PhD SOM BioMed Sciences, 5 year PhD SOM BioMed Sciences (pending graduation)			

340	PHDBS 702a	Molecular Basis of Health and Disease	0	0				1 year PhD SOM BioMed Sciences	1 year PhD SSH Life Sciences		
341	PHDBS 703a	Biomedical Research Analysis and Design of Experimentation	0	0				1 year PhD SOM BioMed Sciences			
342	PHDBS 704-0	NUSOM seminar	0	0				1 year PhD SOM BioMed Sciences, 2 year PhD SOM BioMed Sciences, 3 year PhD SOM BioMed Sciences, 4 year PhD SOM BioMed Sciences			
343	PHDBS 705	Biosafety, Animal Welfare and Ethics	4	8				1 year PhD SOM BioMed Sciences	1 year PhD SSH Life Sciences		
344	PHDBS 706a	Advanced Biomedical Research Analysis and Design of Experimentation	0	0				2 year PhD SOM BioMed Sciences			
345	PHDBS 707a	Publication Analysis	0	0				2 year PhD SOM BioMed Sciences			
346	PHDBS 708	Writing for Biomedical Sciences	3	6				2 year PhD SOM BioMed Sciences, 2 year PhD SOM Global Health	1 year PhD SSH Life Sciences		
347	PHDBS 717	Organ System and Common Diseases	3	6				1 year PhD SOM BioMed Sciences	1 year PhD SSH Life Sciences		
348	PHDGH 701-0	Thesis Research	0	0				1 year PhD SOM Global Health, 2 year PhD SOM Global Health, 3 year PhD SOM Global Health, 4 year PhD SOM Global Health			
349	PHDGH 702	Foundations of Global Health	4	8				1 year PhD SOM Global Health			
350	PHDGH 703	Health Policy and Systems in Global Health	4	8				1 year PhD SOM Global Health			
351	PHDGH 704-0	NUSOM Seminar in Global Health	0	0				1 year PhD SOM Global Health, 2 year PhD SOM Global Health, 3 year PhD SOM Global Health, 4 year PhD SOM Global Health			
352	PHDGH 708	Advanced Methods in Global Health Research	3	6				2 year PhD SOM Global Health			
Public Health											

353	PUBH 501	Principles of Public Health Problem Solving	3	6				1 year Gr SOM Public Health	1 year Gr SOM Molecular Medicine, 1 year Gr SOM Pharmacology and Toxicology, 1 year Gr SOM Sports Medicine and Rehabilitation		
354	PUBH 511	Inferential Biostatistics	3	6				1 year Gr SOM Public Health	1 year Gr SOM Molecular Medicine, 1 year Gr SOM Pharmacology and Toxicology, 1 year Gr SOM Sports Medicine and Rehabilitation		
355	PUBH 521	Principles of Analytical Epidemiology	3	6				1 year Gr SOM Public Health	1 year Gr SOM Pharmacology and Toxicology, 1 year Gr SOM Sports Medicine and Rehabilitation, 2 year Gr SOM Molecular Medicine		
356	PUBH 528	Qualitative Research Methods	3	6				1 year Gr SOM Public Health	1 year Gr SOM Molecular Medicine, 1 year Gr SOM Pharmacology and Toxicology, 1 year Gr SOM Sports Medicine and Rehabilitation		
357	PUBH 552	Principles of Heath Economics and Policy	3	6	PUBH 551 Health Services Management, Health Economic and Health Policy (3696) (C and above)			2 year Gr SOM Public Health			
358	PUBH 561	Graduate Research Seminar I	3	6				2 year Gr SOM Public Health			

359	PUBH 599	Global Nutrition and Sustainability	3	6				1 year Gr SOM Public Health	1 year Gr SOM Pharmacology and Toxicology, 1 year Gr SOM Sports Medicine and Rehabilitation, 2 year Gr SOM Molecular Medicine		
360	PUBH 601	Health Education and Promotion	3	6				2 year Gr SOM Public Health			
361	PUBH 633	Methods in Public Health	3	6				2 year Gr SOM Public Health			
362	PUBH 681	Master’s Project Planning	3	6				2 year Gr SOM Public Health			
SSH											
Academic Success Centre, Communication and Composition											
363	WCS 150	Rhetoric and Composition	3	6				Business Administration (UG), SEDS, SMG, SSH, SoM			

364	WCS 210	Technical and Professional Writing	3	6	ASC 100 Advanced English for Academic Purposes (9234) (C- and above) OR Test "IELTS" BETWEEN 6.5 and 9 OR WCS 150/ASC 100 Advanced English for Academic Purposes (2183) (C- and above)		WCS 200 Introduction to Public Speaking (175) (D and above) OR WCS 220 Science Writing (5686) (D and above) OR WCS 230 Say What you Mean: Clarity, Precision, and Style in Academic Writing (3026) (D and above) OR WCS 240 Writing for Digital Media (4421) (D and above) OR WCS 250 Advanced Rhetoric and Composition (3027) (D and above) OR WCS 260/WLL 235 Creative Writing: Introduction to Fiction Writing I (4000) (D and above) OR WCS 270 Academic and Professional Presentations (8409) (D and above)	Chemical and Materials Engineering, Chemistry, Civil and Environmental Engineering, Electrical and Computer Engineering, Geology, Mechanical and Aerospace Engineering, Mining Engineering, Petroleum Engineering, Robotics Engineering	SEDS	Business Administration (UG), SSH, SoM	
Area Studies											
365	EAS 500	Introduction to Eurasia	4	8				Eurasian Studies			
366	EAS 501	General Methodology	4	8				Eurasian Studies			
367	EAS 503	Thesis I	7.5	15	EAS 500 Introduction to Eurasia (1632) (C- and above) AND EAS 501 General Methodology (1633) (C- and above) AND EAS 502 Disciplinary Methodology (1379) (C- and above)			Eurasian Studies			
368	EAS 511	Independent Study in Eurasian Studies	4	8				Instructor's Permission Required. Registration through Add Course form only!			

369	EAS 512	Topics in Eurasian Studies	4	8				Instructor's Permission Required. Registration through Add Course form only!			
370	EAS 513	Critical Issues in Eurasian Studies	4	8				Instructor's Permission Required. Registration through Add Course form only!			
371	EAS 514	Topics in Eurasian Social Sciences	4	8				Instructor's Permission Required. Registration through Add Course form only!			
372	EAS 700	Introduction to Eurasia	4	8				Eurasian Studies			
373	EAS 701	Critical Issues in Eurasian Studies	2	4							
374	EAS 702	Elective in Eurasian Humanities	4	8				Instructor's Permission Required. Registration through Add Course form only!			
375	EAS 703	Elective in Eurasian Social Sciences	4	8				Instructor's Permission Required. Registration through Add Course form only!			
376	EAS 704	Elective 2 in Eurasian Humanities	4	8				Instructor's Permission Required. Registration through Add Course form only!			
377	EAS 705	Elective 2 in Social Sciences	4	8				Instructor's Permission Required. Registration through Add Course form only!			
378	EAS 709	Proseminar in Eurasian Social Sciences	4	8				Instructor's Permission Required. Registration through Add Course form only!			
379	EAS 710	Independent Study in Eurasian Studies	4	8				Instructor's Permission Required. Registration through Add Course form only!			
380	EAS 711	Doctoral Seminar in Eurasian Studies I	4	8				Eurasian Studies			
381	EAS 800	Doctoral Thesis in Eurasian Studies	70	140							
382	EAS 800-0	Dissertation Research in Eurasian Studies	0	0				Eurasian Studies			
Area Studies, Political Science and International Relations, Sociology and Anthropology											

383	PLS 514/EAS 506/SOC 514	Qualitative Research Methods	4	8				Eurasian Studies	Political Science and International Relations		
Chemistry											
384	CHEM 100	Introduction to Chemistry	3	6			CHEM 090 Chemistry for Non-Science majors (152) (D+ and above)	4 year UG SEDS, 4 year UG SMG, 4 year UG SSH, 5 year UG SEDS (pending graduation), 5 year UG SMG (pending graduation), 5 year UG SSH (pending graduation), 6 year UG SEDS (pending graduation), 6 year UG SMG (pending graduation), 6 year UG SSH (pending graduation)	SSH	Business Administration (UG), SEDS, SMG, SoM	
385	CHEM 101	General Chemistry I	3	6				Chemistry	Biological Sciences, SoM	SEDS, SMG, SSH	
386	CHEM 101L	General Chemistry I lab	1	2		CHEM 101 General Chemistry I (113) (C and above)		Chemistry	Biological Sciences, SoM	SEDS, SMG, SSH	
387	CHEM 102	General Chemistry II	3	6	CHEM 101 General Chemistry I (113) (C and above)			Business Administration (UG), SEDS, SMG, SSH, SoM			
388	CHEM 104	Introduction to Physical and Chemical Sciences	3	6			CHEM 091 Survey of Physical Science (149) (D+ and above)	Anthropology, Economics, History, Nursing, Political Science and International Relations, Sociology, Undeclared SSH, World Languages, Literature and Culture	SSH	SEDS, SMG, SoM	
389	CHEM 211	Organic Chemistry I	3	6	CHEM 102 General Chemistry II (232) (C and above)			Chemistry	Biological Sciences, SoM	SEDS, SMG, SSH	
390	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)		Chemistry	Biological Sciences, SoM	SEDS, SMG, SSH	
391	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)			Chemistry	Biological Sciences, SoM	SEDS, SMG, SSH	

392	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)		Chemistry	Biological Sciences, SoM	SEDS, SMG, SSH	
393	CHEM 220	Quantitative Chemical Analysis	3	6	CHEM 102 General Chemistry II (232) (C and above)			Chemistry	Biological Sciences, SoM	SEDS, SMG, SSH	
394	CHEM 220L	Quantitative Chemical Analysis Lab	1	2	CHEM 101L General Chemistry I lab (179) (C and above)	CHEM 220 Quantitative Chemical Analysis (555) (C and above)		Chemistry	Biological Sciences, SoM	SEDS, SMG, SSH	
395	CHEM 331	Physical Chemistry I	3	6	CHEM 220 Quantitative Chemical Analysis (555) (C and above) AND PHYS 161 Physics I for Scientists and Engineers with Laboratory (116) (C and above)			Chemistry	Biological Sciences, SoM	SEDS, SMG, SSH	
396	CHEM 331L	Physical Chemistry Lab	1	2		CHEM 331 Physical Chemistry I (634) (C and above)		Chemistry	Biological Sciences, SoM	SEDS, SMG, SSH	
397	CHEM 341	Biochemistry I	3	6	CHEM 211 Organic Chemistry I (154) (C and above)			Chemistry	Biological Sciences, SoM	SEDS, SMG, SSH	
398	CHEM 350	Advanced Inorganic Chemistry	3	6	CHEM 212 Organic Chemistry II (443) (C and above) AND CHEM 212L Organic Chemistry II Lab (444) (C and above) AND CHEM 250 Descriptive Inorganic Chemistry (445) (C and above)			Chemistry	Biological Sciences	SEDS, SMG, SSH, SoM	

399	CHEM 350L	Advanced Inorganic Chemistry Laboratory	1	2	CHEM 212 Organic Chemistry II (443) (C and above) AND CHEM 212L Organic Chemistry II Lab (444) (C and above) AND CHEM 250 Descriptive Inorganic Chemistry (445) (C and above)	CHEM 350 Advanced Inorganic Chemistry (1905) (C and above)		Chemistry	Biological Sciences	SEDS, SMG, SSH, SoM	
400	CHEM 410	Structural Spectroscopy	4	8	CHEM 212 Organic Chemistry II (443) (C and above)			Chemistry	Biological Sciences, SoM	SEDS, SMG, SSH	
401	CHEM 432	Introduction to Cheminformatics and Computer aided drug design	3	6	CHEM 341 Biochemistry I (1058) (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	Biological Sciences, SEDS, SMG, SSH	SoM	
402	CHEM 440	Pharmaceutical and Medicinal Chemistry	3	6	CHEM 211 Organic Chemistry I (154) (C and above)			Chemistry	Biological Sciences, SoM	SEDS, SMG, SSH	
403	CHEM 471	Environmental Chemistry	3	6	CHEM 102 General Chemistry II (232) (C and above)			Chemistry	SEDS, SMG, SSH, SoM		
404	CHEM 488	Directed Research I	3	6	CHEM 380 Research Methods (636) (C and above)			Chemistry			
405	CHEM 510	Principles of Physical Chemistry	3	6				Chemistry	SSH	SEDS, SMG, SoM	
406	CHEM 512	Cheminformatics	4	8				Chemistry	Biological Sciences, SEDS, SMG, SSH	SoM	
407	CHEM 518	Applied Polymer Science	4	8				Chemistry	SSH	SEDS, SMG, SoM	
408	CHEM 520	Applied Analytical Chemistry	3	6				Chemistry	SSH	SEDS, SMG, SoM	
409	CHEM 522	Analytical Environmental Chemistry	3	6	CHEM 520 Applied Analytical Chemistry (5267) (C and above)			Chemistry	SSH	SEDS, SMG, SoM	

410	CHEM 530	Inorganic Structures and Reaction Mechanisms	3	6				Chemistry	SSH	SEDS, SMG, SoM	
411	CHEM 531	Nanochemistry and Functional Nanomaterials	3	6				Chemistry	SSH	SEDS, SMG, SoM	
412	CHEM 541	Medicinal Chemistry and Drug Design	3	6	CHEM 540 Organic Reactions and Mechanisms (5460) (C and above)			Chemistry	Biological Sciences, SoM	SEDS, SMG, SSH	
413	CHEM 543	Structural Identification of Organic Compounds	3	6				Chemistry	Biological Sciences, SoM	SEDS, SMG, SSH	
414	CHEM 591	Scientific Methods in Chemistry	3	6				Chemistry	SSH	SEDS, SMG, SoM	
415	CHEM 691	Thesis Proposal	3	6				Chemistry			
416	CHEM 700	Hot Topics in Chemistry	4	8				Chemistry	SSH	SEDS, SMG, SoM	
417	CHEM 711	Polymer Chemistry	4	8				Chemistry	SSH	SEDS, SMG, SoM	
418	CHEM 720	Spectrochemical Methods of analysis	4	8				Chemistry	SSH	SEDS, SMG, SoM	
419	CHEM 722	Advanced Environmental Chemistry	4	8				Chemistry	SSH	SEDS, SMG, SoM	
420	CHEM 730	Chemical Thermodynamics and Kinetics	4	8				Chemistry	SSH	SEDS, SMG, SoM	
421	CHEM 732	Machine Learning in Cheminformatics	4	8				Chemistry	Biomedical Sciences, SEDS, SMG, SSH	SoM	
422	CHEM 740	Chemical Biology	4	8				Chemistry	Biomedical Sciences, SoM	SEDS, SMG, SSH	
423	CHEM 750	Modern Inorganic Chemistry	4	8				Chemistry	SSH	SEDS, SMG, SoM	
424	CHEM 798-0	Thesis Research	0	0				Chemistry			
Communication and Composition											
425	WCS 101	Communication and Society	3	6				1 year UG SSH	2 year UG SEDS, 2 year UG SMG, 2 year UG SSH, SoM		
426	WCS 200	Introduction to Public Speaking	3	6	WCS 150/ASC 100 Advanced English for Academic Purposes (2183) (C- and above)			2 year UG GSB Business Administration (UG), 2 year UG SEDS, 2 year UG SMG, 2 year UG SSH, SoM	3 year UG SEDS, 3 year UG SMG, 3 year UG SSH		

427	WCS 201	Introduction to Journalism	3	6	WCS 101 Communication and Society (199) (C- and above) OR WCS 150/ASC 100 Advanced English for Academic Purposes (2183) (C- and above)			2 year UG GSB Business Administration (UG), 2 year UG SSH			
428	WCS 203	Interpersonal Communication	3	6	WCS 101 Communication and Society (199) (C- and above) OR WCS 200 Introduction to Public Speaking (175) (C- and above)			2 year UG GSB Business Administration (UG), 2 year UG SSH	3 year UG SSH, 4 year UG SEDS		
429	WCS 204	Gender and Communication	3	6	WCS 101 Communication and Society (199) (C- and above) OR WCS 150/ASC 100 Advanced English for Academic Purposes (2183) (B- and above)						
430	WCS 230	Say What you Mean: Clarity, Precision, and Style in Academic Writing	3	6	WCS 150/ASC 100 Advanced English for Academic Purposes (2183) (C- and above)			2 year UG GSB Business Administration (UG), 2 year UG SEDS, 2 year UG SMG, 2 year UG SSH, SoM	3 year UG SEDS, 3 year UG SMG, 3 year UG SSH		
431	WCS 240	Writing for Digital Media	3	6	WCS 150/ASC 100 Advanced English for Academic Purposes (2183) (C- and above)			2 year UG GSB Business Administration (UG), 2 year UG SEDS, 2 year UG SMG, 2 year UG SSH, SoM	3 year UG SEDS, 3 year UG SMG, 3 year UG SSH		
432	WCS 250	Advanced Rhetoric and Composition	3	6	WCS 150/ASC 100 Advanced English for Academic Purposes (2183) (C- and above)			Business Administration (UG), SEDS, SSH, SoM			
433	WCS 270	Academic and Professional Presentations	3	6	WCS 150/ASC 100 Advanced English for Academic Purposes (2183) (C- and above)		WCS 210/ASC 200 Academic Writing, Science Communication, and Media Literacy (4881) (C- and above)	2 year UG GSB Business Administration (UG), 2 year UG SEDS, 2 year UG SMG, 2 year UG SSH, SoM	3 year UG SEDS, 3 year UG SMG, 3 year UG SSH		
434	WCS 300	Internship: Undergraduate Speaker Consultant I	3	6	WCS 200 Introduction to Public Speaking (175) (A- and above) OR WCS 270 Academic and Professional Presentations (8409) (A- and above)			Instructor's Permission Required. Registration through Add Course form only!			

435	WCS 301	Internship: Undergraduate Speaker Consultant II	3	6	WCS 300 Internship: Undergraduate Speaker Consultant I (8538) (P)			Instructor's Permission Required. Registration through Add Course form only!			
436	WCS 390	Writing Fellows I – Composition and Collaboration in Theory and Practice	3	6	WCS 150/ASC 100 Advanced English for Academic Purposes (2183) (B and above) AND (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 250 Advanced Rhetoric and Composition (3027) (B+ and above))			3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH			
437	WCS 393	Internship: Undergraduate Writing Tutor I	3	6	WCS 392 Writing Fellows III - Research & Practice in Writing & Peer Mentorship (4472) (B and above)			Business Administration (UG), SEDS, SMG, SSH, SoM			
438	WCS 501	Science Communication	4	8				SSH	SEDS, SMG		
439	WCS 730	From Genre to Style and Back: Writing for PhD Students	4	8				Eurasian Studies	SSH		
Communication and Composition, Languages, Literature and Linguistics											
440	WLL 235/WCS 260	Creative Writing: Introduction to Fiction Writing I	3	6	WCS 150/ASC 100 Advanced English for Academic Purposes (2183) (C- and above)			2 year UG SEDS, 2 year UG SMG, 2 year UG SSH, SoM	World Languages, Literature and Culture	Business Administration (UG), SEDS, SMG, SSH	
441	WLL 360/WCS 360	Poetry Writing Seminar	3	6				3 year UG SSH World Languages, Literatures and Cultures	3 year UG SEDS, 3 year UG SMG, 3 year UG SSH	SEDS, SMG, SSH, SoM	
442	WLL 462/WCS 462	Creative Nonfiction	3	6	WCS 260/WLL 235 Creative Writing: Introduction to Fiction Writing I (4000) (C and above)			World Languages, Literature and Culture	SSH	Business Administration (UG), SEDS, SMG, SoM	
443	WLL 465/WCS 465	Creative Writing: Autofiction	3	6	WCS 260/WLL 235 Creative Writing: Introduction to Fiction Writing I (4000) (C- and above)			World Languages, Literature and Culture	SSH	Business Administration (UG), SEDS, SMG, SoM	
444	WLL 562/WCS 562	Creative Nonfiction	4	8				Eurasian Studies	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		

History, Philosophy and Religious Studies											
445	HST 100	History of Kazakhstan	3	6				4 year UG SEDS, 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 5 year UG SEDS (pending graduation), 5 year UG SMG (pending graduation), 5 year UG SSH (pending graduation), 6 year UG SEDS (pending graduation), 6 year UG SSH (pending graduation)	1 year UG GSB Business Administration (UG), 1 year UG SEDS, 1 year UG SMG, 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	Business Administration (UG), SEDS, SMG, SSH, SoM	
446	HST 104	Central Asian History II (1700 - 1991)	3	6				1 year UG SSH Undeclared, History	1 year UG SSH, 2 year UG SSH	Business Administration (UG), SEDS, SMG, SSH, SoM	
447	HST 121	World History I (to 1500)	3	6				1 year UG SSH Undeclared, History	1 year UG SSH, 2 year UG SSH	Business Administration (UG), SEDS, SMG, SSH, SoM	
448	HST 124	Introduction to the History of Medicine	3	6				1 year UG SSH Undeclared, History	1 year UG SSH, 2 year UG SSH	Business Administration (UG), SEDS, SMG, SSH, SoM	
449	HST 212	Coins, cotton, and cocoons: Global trade and Eurasian materiality (ca. 1500-1850)	3	6	Subject "HST" BETWEEN 100 and 199			1 year UG SSH Undeclared, History	1 year UG SSH, 2 year UG SSH	Business Administration (UG), SEDS, SMG, SSH, SoM	
450	HST 399	Independent Study	3	6				Instructor's Permission Required. Registration through Add Course form only!			

451	HST 435	Stalinist Central Asia	3	6				4 year UG SEDS, 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 5 year UG SEDS (pending graduation), 5 year UG SMG (pending graduation), 5 year UG SOM, 5 year UG SSH (pending graduation), 6 year UG SEDS (pending graduation), 6 year UG SMG (pending graduation), 6 year UG SOM (pending graduation), 6 year UG SSH (pending graduation), History	SSH	Business Administration (UG), SEDS, SMG, SoM	
452	HST 498	Directed Reading	3	6				Instructor's Permission Required. Registration through Add Course form only!			
453	HST 535	Stalinist Central Asia	4	8				Eurasian Studies			
454	PHIL 131	Introduction to Contemporary Political Philosophy	3	6				1 year UG SSH Undeclared	1 year UG SSH, 2 year UG SSH	Business Administration (UG), SEDS, SMG, SSH, SoM	
455	PHIL 160	Philosophy of Religion	3	6				1 year UG SSH Undeclared	1 year UG SSH, 2 year UG SSH	Business Administration (UG), SEDS, SMG, SSH, SoM	
456	PHIL 210	Ethics	3	6				3 year UG SOM Medical Sciences, 3 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 5 year UG SEDS (pending graduation), 5 year UG SMG (pending graduation), 5 year UG SSH (pending graduation), 6 year UG SEDS (pending graduation), 6 year UG SSH (pending graduation)	1 year UG GSB Business Administration (UG), 2 year UG SEDS, 2 year UG SMG, 2 year UG SSH Biological Sciences, 3 year UG SEDS, 3 year UG SMG	Business Administration (UG), SEDS, SMG, SSH, SoM	
457	PHIL 232	Philosophy of Law	3	6				1 year UG SSH Undeclared	1 year UG SSH, 2 year UG SSH	Business Administration (UG), SEDS, SMG, SSH, SoM	

458	PHIL 362	Philosophy of Mind	3	6				4 year UG SEDS, 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 5 year UG SEDS (pending graduation), 5 year UG SMG (pending graduation), 5 year UG SOM, 5 year UG SSH (pending graduation), 6 year UG SEDS (pending graduation), 6 year UG SMG (pending graduation), 6 year UG SOM (pending graduation), 6 year UG SSH (pending graduation), History	SSH	Business Administration (UG), SEDS, SMG, SoM	
459	PHIL 383	Kant’s Critique of Pure Reason	3	6				4 year UG SEDS, 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 5 year UG SEDS (pending graduation), 5 year UG SMG (pending graduation), 5 year UG SOM, 5 year UG SSH (pending graduation), 6 year UG SEDS (pending graduation), 6 year UG SMG (pending graduation), 6 year UG SOM (pending graduation), 6 year UG SSH (pending graduation)	SSH	Business Administration (UG), SEDS, SMG, SoM	
460	PHIL 399	Special Topics in Philosophy	3	6	PHIL 101 Introduction to Philosophy (242) (C- and above) OR PHIL 210 Ethics (459) (C- and above) OR PHIL 320 Truth, Knowledge and Belief (470) (C- and above) OR PHIL 230/PLS 230 Religion and Democracy (671) (C- and above)			4 year UG SEDS, 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 5 year UG SEDS (pending graduation), 5 year UG SMG (pending graduation), 5 year UG SOM, 5 year UG SSH (pending graduation), 6 year UG SEDS (pending graduation), 6 year UG SMG (pending graduation), 6 year UG SOM (pending graduation), 6 year UG SSH (pending graduation)	SSH	Business Administration (UG), SEDS, SMG, SoM	
461	REL 212	Buddhist Religious Traditions	3	6				1 year UG SSH Undeclared, History	1 year UG SSH, 2 year UG SSH	Business Administration (UG), SEDS, SMG, SSH, SoM	
History, Philosophy and Religious Studies, History, Philosophy and Religious Studies											

462	HST 110/REL 110	Introduction to World Religions	3	6				1 year UG SSH Undeclared, History	1 year UG SSH, 2 year UG SSH	Business Administration (UG), SEDS, SMG, SSH, SoM	
History, Philosophy and Religious Studies, Kazakh Language and Turkic Studies											
463	HST 271/TUR 271	History of the Ottoman Empire	3	6	HST 100 History of Kazakhstan (172) (C- and above)			History	SSH	Business Administration (UG), SEDS, SMG, SoM	
History, Philosophy and Religious Studies, Kazakh Language and Turkic Studies, Sociology and Anthropology, Sociology and Anthropology											
464	HST 375/TUR 375/ANT 375/SOC 375	Inner Asian Frontiers of China: A Cultural Perspective	3	6				3 year UG SSH Anthropology, 3 year UG SSH Sociology, 4 year UG SSH Anthropology, 4 year UG SSH Sociology, 5 year UG SSH Anthropology, 5 year UG SSH Sociology	Anthropology, History, Sociology	Business Administration (UG), SEDS, SMG, SSH, SoM	
History, Philosophy and Religious Studies, Languages, Literature and Linguistics											
465	HST 274/WLL 274	Texts and Contexts	3	6				History	World Languages, Literature and Culture	SSH	
466	WLL 377/PHIL 377	Philosophy and Tragedy	3	6				World Languages, Literature and Culture	4 year UG SEDS, 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 5 year UG SEDS (pending graduation), 5 year UG SMG (pending graduation), 5 year UG SOM (pending graduation), 5 year UG SSH (pending graduation), 6 year UG SEDS (pending graduation), 6 year UG SMG (pending graduation), 6 year UG SOM (pending graduation), 6 year UG SSH (pending graduation)	SSH	
467	WLL 577/PHIL 577	Philosophy and Tragedy	4	8				Eurasian Studies	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		

468	WLL 777/PHIL 777	Philosophy and Tragedy	4	8				Eurasian Studies	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
Kazakh Language and Turkic Studies											
469	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, 1 year UG SSH, Business Administration (UG)	SEDS, SMG, SSH, SoM		
470	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, 1 year UG SSH, Business Administration (UG)	SEDS, SMG, SSH, SoM		
471	KAZ 300	Kazakh Studies in the Post-Colonial Era	3	6	KAZ 202 Academic Kazakh II (4562) (C and above) OR KLL "[C1.1] Advanced"			1 year UG SOM Medical Sciences, 2 year UG GSB Business Administration (UG), 2 year UG SMG Geology, 2 year UG SMG Mining Engineering, 2 year UG SSH Biological Sciences, 2 year UG SSH Mathematics, 3 year UG SEDS Computer Science, 3 year UG SEDS Electrical and Computer Engineering, 3 year UG SEDS Robotics Engineering, 3 year UG SOM Medical Sciences, 3 year UG SSH Anthropology, 3 year UG SSH Chemistry, 3 year UG SSH Economics, 3 year UG SSH History, 3 year UG SSH Mathematics, 3 year UG SSH Physics, 3 year UG SSH Political Sciences and International Relations, 3 year UG SSH Sociology, 3 year UG SSH World Languages, Literatures and Cultures, 4 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Civil and Environmental Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering, 4 year UG SSH Physics	SEDS, SMG, SSH, SoM		

472	KAZ 313	Kazakh for Business	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			1 year UG SOM Medical Sciences, 2 year UG GSB Business Administration (UG), 2 year UG SMG Geology, 2 year UG SMG Mining Engineering, 2 year UG SSH Biological Sciences, 2 year UG SSH Mathematics, 3 year UG SEDS Computer Science, 3 year UG SEDS Electrical and Computer Engineering, 3 year UG SEDS Robotics Engineering, 3 year UG SSH Anthropology, 3 year UG SSH Chemistry, 3 year UG SSH Economics, 3 year UG SSH History, 3 year UG SSH Physics, 3 year UG SSH Political Sciences and International Relations, 3 year UG SSH Sociology, 4 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Civil and Environmental Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering, 4 year UG SSH Physics, Business Administration (UG)	SEDS, SMG, SSH, SoM		

473	KAZ 349	Kazakh Mythology	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			1 year UG SOM Medical Sciences, 2 year UG GSB Business Administration (UG), 2 year UG SMG Geology, 2 year UG SMG Mining Engineering, 2 year UG SSH Biological Sciences, 2 year UG SSH Mathematics, 3 year UG SEDS Computer Science, 3 year UG SEDS Electrical and Computer Engineering, 3 year UG SEDS Robotics Engineering, 3 year UG SSH Anthropology, 3 year UG SSH Chemistry, 3 year UG SSH Economics, 3 year UG SSH History, 3 year UG SSH Physics, 3 year UG SSH Political Sciences and International Relations, 3 year UG SSH Sociology, 4 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Civil and Environmental Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering, 4 year UG SSH Physics	SEDS, SMG, SSH, SoM		

474	KAZ 350	Kazakh Literature	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			1 year UG SOM Medical Sciences, 2 year UG GSB Business Administration (UG), 2 year UG SMG Geology, 2 year UG SMG Mining Engineering, 2 year UG SSH Biological Sciences, 2 year UG SSH Mathematics, 3 year UG SEDS Computer Science, 3 year UG SEDS Electrical and Computer Engineering, 3 year UG SEDS Robotics Engineering, 3 year UG SSH Anthropology, 3 year UG SSH Chemistry, 3 year UG SSH Economics, 3 year UG SSH History, 3 year UG SSH Physics, 3 year UG SSH Political Sciences and International Relations, 3 year UG SSH Sociology, 4 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Civil and Environmental Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering, 4 year UG SSH Physics	SEDS, SMG, SSH, SoM		

475	KAZ 351	Kazakh Short Stories	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			1 year UG SOM Medical Sciences, 2 year UG GSB Business Administration (UG), 2 year UG SMG Geology, 2 year UG SMG Mining Engineering, 2 year UG SSH Biological Sciences, 2 year UG SSH Mathematics, 3 year UG SEDS Computer Science, 3 year UG SEDS Electrical and Computer Engineering, 3 year UG SEDS Robotics Engineering, 3 year UG SSH Anthropology, 3 year UG SSH Chemistry, 3 year UG SSH Economics, 3 year UG SSH History, 3 year UG SSH Physics, 3 year UG SSH Political Sciences and International Relations, 3 year UG SSH Sociology, 4 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Civil and Environmental Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering, 4 year UG SSH Physics	SEDS, SMG, SSH, SoM		

476	KAZ 356	Kazakh Music History	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			1 year UG SOM Medical Sciences, 2 year UG GSB Business Administration (UG), 2 year UG SMG Geology, 2 year UG SMG Mining Engineering, 2 year UG SSH Biological Sciences, 2 year UG SSH Mathematics, 3 year UG SEDS Computer Science, 3 year UG SEDS Electrical and Computer Engineering, 3 year UG SEDS Robotics Engineering, 3 year UG SSH Anthropology, 3 year UG SSH Chemistry, 3 year UG SSH Economics, 3 year UG SSH History, 3 year UG SSH Physics, 3 year UG SSH Political Sciences and International Relations, 3 year UG SSH Sociology, 4 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Civil and Environmental Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering, 4 year UG SSH Physics	SEDS, SMG, SSH, SoM		

477	KAZ 357	Literature of Alash	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			1 year UG SOM Medical Sciences, 2 year UG GSB Business Administration (UG), 2 year UG SMG Geology, 2 year UG SMG Mining Engineering, 2 year UG SSH Biological Sciences, 2 year UG SSH Mathematics, 3 year UG SEDS Computer Science, 3 year UG SEDS Electrical and Computer Engineering, 3 year UG SEDS Robotics Engineering, 3 year UG SSH Anthropology, 3 year UG SSH Chemistry, 3 year UG SSH Economics, 3 year UG SSH History, 3 year UG SSH Physics, 3 year UG SSH Political Sciences and International Relations, 3 year UG SSH Sociology, 4 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Civil and Environmental Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering, 4 year UG SSH Physics	SEDS, SMG, SSH, SoM		

478	KAZ 359	Professional Kazakh for Medicine	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			1 year UG SOM Medical Sciences, 2 year UG GSB Business Administration (UG), 2 year UG SMG Geology, 2 year UG SMG Mining Engineering, 2 year UG SSH Biological Sciences, 2 year UG SSH Mathematics, 3 year UG SEDS Computer Science, 3 year UG SEDS Electrical and Computer Engineering, 3 year UG SEDS Robotics Engineering, 3 year UG SSH Anthropology, 3 year UG SSH Chemistry, 3 year UG SSH Economics, 3 year UG SSH History, 3 year UG SSH Physics, 3 year UG SSH Political Sciences and International Relations, 3 year UG SSH Sociology, 4 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Civil and Environmental Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering, 4 year UG SSH Physics	SEDS, SMG, SSH, SoM		

479	KAZ 363	Language and Globalization	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			1 year UG SOM Medical Sciences, 2 year UG GSB Business Administration (UG), 2 year UG SMG Geology, 2 year UG SMG Mining Engineering, 2 year UG SSH Biological Sciences, 2 year UG SSH Mathematics, 3 year UG SEDS Computer Science, 3 year UG SEDS Electrical and Computer Engineering, 3 year UG SEDS Robotics Engineering, 3 year UG SSH Anthropology, 3 year UG SSH Chemistry, 3 year UG SSH Economics, 3 year UG SSH History, 3 year UG SSH Physics, 3 year UG SSH Political Sciences and International Relations, 3 year UG SSH Sociology, 4 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Civil and Environmental Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering, 4 year UG SSH Physics	SEDS, SMG, SSH, SoM		

480	KAZ 366	Kazakh Language for Engineers	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			1 year UG SOM Medical Sciences, 2 year UG GSB Business Administration (UG), 2 year UG SMG Geology, 2 year UG SMG Mining Engineering, 2 year UG SSH Biological Sciences, 2 year UG SSH Mathematics, 3 year UG SEDS Computer Science, 3 year UG SEDS Electrical and Computer Engineering, 3 year UG SEDS Robotics Engineering, 3 year UG SSH Anthropology, 3 year UG SSH Chemistry, 3 year UG SSH Economics, 3 year UG SSH History, 3 year UG SSH Physics, 3 year UG SSH Political Sciences and International Relations, 3 year UG SSH Sociology, 4 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Civil and Environmental Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering, 4 year UG SSH Physics	SEDS, SMG, SSH, SoM		

481	KAZ 368	Onomastics: History and Function of Names	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			1 year UG SOM Medical Sciences, 2 year UG GSB Business Administration (UG), 2 year UG SMG Geology, 2 year UG SMG Mining Engineering, 2 year UG SSH Biological Sciences, 2 year UG SSH Mathematics, 3 year UG SEDS Computer Science, 3 year UG SEDS Electrical and Computer Engineering, 3 year UG SEDS Robotics Engineering, 3 year UG SSH Anthropology, 3 year UG SSH Chemistry, 3 year UG SSH Economics, 3 year UG SSH History, 3 year UG SSH Physics, 3 year UG SSH Political Sciences and International Relations, 3 year UG SSH Sociology, 4 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Civil and Environmental Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering, 4 year UG SSH Physics	SEDS, SMG, SSH, SoM		

482	KAZ 371	Contemporary Kazakh Literature	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			2 year UG SOM Medical Sciences, 4 year UG SEDS Computer Science, 4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Robotics Engineering, 4 year UG SMG Geology, 4 year UG SMG Mining Engineering, 4 year UG SSH Anthropology, 4 year UG SSH Biological Sciences, 4 year UG SSH Chemistry, 4 year UG SSH Economics, 4 year UG SSH History, 4 year UG SSH Mathematics, 4 year UG SSH Political Sciences and International Relations, 4 year UG SSH Sociology, 4 year UG SSH World Languages, Literatures and Cultures	SEDS, SMG, SSH, SoM		
483	KAZ 372	Language and ethnicity	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			2 year UG SOM Medical Sciences, 4 year UG SEDS Computer Science, 4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Robotics Engineering, 4 year UG SMG Geology, 4 year UG SMG Mining Engineering, 4 year UG SSH Anthropology, 4 year UG SSH Biological Sciences, 4 year UG SSH Chemistry, 4 year UG SSH Economics, 4 year UG SSH History, 4 year UG SSH Mathematics, 4 year UG SSH Political Sciences and International Relations, 4 year UG SSH Sociology, 4 year UG SSH World Languages, Literatures and Cultures	SEDS, SMG, SSH, SoM		

484	KAZ 373	Kazakh Terminology	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			2 year UG SOM Medical Sciences, 4 year UG SEDS Computer Science, 4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Robotics Engineering, 4 year UG SMG Geology, 4 year UG SMG Mining Engineering, 4 year UG SSH Anthropology, 4 year UG SSH Biological Sciences, 4 year UG SSH Chemistry, 4 year UG SSH Economics, 4 year UG SSH History, 4 year UG SSH Mathematics, 4 year UG SSH Political Sciences and International Relations, 4 year UG SSH Sociology, 4 year UG SSH World Languages, Literatures and Cultures	SEDS, SMG, SSH, SoM		
485	KAZ 374	Kazakh Diplomacy	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			2 year UG SOM Medical Sciences, 4 year UG SEDS Computer Science, 4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Robotics Engineering, 4 year UG SMG Geology, 4 year UG SMG Mining Engineering, 4 year UG SSH Anthropology, 4 year UG SSH Biological Sciences, 4 year UG SSH Chemistry, 4 year UG SSH Economics, 4 year UG SSH History, 4 year UG SSH Mathematics, 4 year UG SSH Political Sciences and International Relations, 4 year UG SSH Sociology, 4 year UG SSH World Languages, Literatures and Cultures	SEDS, SMG, SSH, SoM		

486	KAZ 376	Language and Culture	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			2 year UG SOM Medical Sciences, 4 year UG SEDS Computer Science, 4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Robotics Engineering, 4 year UG SMG Geology, 4 year UG SMG Mining Engineering, 4 year UG SSH Anthropology, 4 year UG SSH Biological Sciences, 4 year UG SSH Chemistry, 4 year UG SSH Economics, 4 year UG SSH History, 4 year UG SSH Mathematics, 4 year UG SSH Political Sciences and International Relations, 4 year UG SSH Sociology, 4 year UG SSH World Languages, Literatures and Cultures	SEDS, SMG, SSH, SoM		
487	KAZ 377	Intercultural Communication through Film	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			2 year UG SOM Medical Sciences, 4 year UG SEDS Computer Science, 4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Robotics Engineering, 4 year UG SMG Geology, 4 year UG SMG Mining Engineering, 4 year UG SSH Anthropology, 4 year UG SSH Biological Sciences, 4 year UG SSH Chemistry, 4 year UG SSH Economics, 4 year UG SSH History, 4 year UG SSH Mathematics, 4 year UG SSH Political Sciences and International Relations, 4 year UG SSH Sociology, 4 year UG SSH World Languages, Literatures and Cultures	SEDS, SMG, SSH, SoM		

488	KAZ 378	Kazakh for Social Science	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			2 year UG SOM Medical Sciences, 4 year UG SEDS Computer Science, 4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Robotics Engineering, 4 year UG SMG Geology, 4 year UG SMG Mining Engineering, 4 year UG SSH Anthropology, 4 year UG SSH Biological Sciences, 4 year UG SSH Chemistry, 4 year UG SSH Economics, 4 year UG SSH History, 4 year UG SSH Mathematics, 4 year UG SSH Political Sciences and International Relations, 4 year UG SSH Sociology, 4 year UG SSH World Languages, Literatures and Cultures	SEDS, SMG, SSH, SoM		
489	KAZ 410	Kazakh literature of the XV-XIX centuries	3	6	Subject "KAZ" BETWEEN 300 and 399 OR Subject "KAZ" BETWEEN 300 and 399			2 year UG SOM Medical Sciences, 4 year UG SEDS Computer Science, 4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Robotics Engineering, 4 year UG SMG Geology, 4 year UG SMG Mining Engineering, 4 year UG SSH Anthropology, 4 year UG SSH Biological Sciences, 4 year UG SSH Chemistry, 4 year UG SSH Economics, 4 year UG SSH History, 4 year UG SSH Mathematics, 4 year UG SSH Political Sciences and International Relations, 4 year UG SSH Sociology, 4 year UG SSH World Languages, Literatures and Cultures	SEDS, SMG, SSH, SoM		
490	KFL 101	Elementary Kazakh as a Foreign Language I	4	8				Instructor's Permission Required. Registration through Add Course form only!			
491	KFL 201	Intermediate Kazakh as a Foreign Language I	4	8				Instructor's Permission Required. Registration through Add Course form only!			

492	TUR 230	Literatures of Central Asia	3	6				Business Administration (UG), SEDS, SMG, SSH, SoM			
493	TUR 231	Istanbul in Literature and Culture	3	6				2 year UG SSH World Languages, Literatures and Cultures	World Languages, Literature and Culture	Business Administration (UG), SEDS, SMG, SSH, SoM	
494	TUR 451	The Turkish Novel	3	6				Business Administration (UG), SEDS, SMG, SSH, SoM			
495	TUR 575	Advanced Topics in Turkic Studies	4	8				Eurasian Studies			
496	TUR 775	Doctoral Topic in Turkic Studies	4	8				Eurasian Studies			
Kazakh Language and Turkic Studies, Languages, Literature and Linguistics											
497	TUR 280/LING 280	Introduction to Turkic Historical and Comparative Linguistics	3	6				Business Administration (UG), SEDS, SMG, SSH, SoM			

498	TUR 480/LING 480	Selective reading of historical Turkic literature	3	6	LING 131 Introduction to Linguistics (1394) (C and above) OR LING 130 Introduction to Language and Communication (4014) (C and above) OR LING 140 Language Variation and Change: the Story of English (4835) (C and above) OR LING 240 Introduction to Sociolinguistics (6838) (C and above) OR LING 270 Languages of Eurasia (2485) (C and above) OR LING 273 Survey of Research Methods in Linguistics (2158) (C and above) OR LING 277 Language Diversity and Language Universals (3834) (C and above) OR LING 278 Sounds of the World’s Languages (3850) (C and above) OR LING 280/TUR 280 Introduction to Turkic Historical and Comparative Linguistics (3175) (C and above) OR LING 375 The Art and Science of Analyzing Languages: Morphosyntax of the World's Languages (6237) (C and above) OR LING 374 Language Contact in Central Asia (3047) (C and above) OR LING 470 Multilingualism and Language Contact (3339) (C and above)			Business Administration (UG), SEDS, SMG, SSH, SoM			
Languages, Literature and Linguistics											

499	CHN 101	Beginning Mandarin I	4	8				1 year UG SSH Undeclared, 2 year UG SSH World Languages, Literatures and Cultures	3 year UG SSH World Languages, Literatures and Cultures	2 year UG SSH, 3 year UG SSH	
500	CHN 202	Intermediate Mandarin II	4	8	CHN 201 Intermediate Mandarin I (2181) (C and above)			SSH	Business Administration (UG), SEDS, SMG, SoM		
501	DUT 101	Beginning Dutch I	4	8				Business Administration (UG), SEDS, SMG, SSH, SoM			
502	GER 101	Beginning German	4	8				1 year UG SSH Undeclared, 2 year UG SSH World Languages, Literatures and Cultures	3 year UG SSH World Languages, Literatures and Cultures	2 year UG SSH, 3 year UG SSH	
503	GER 201	Intermediate German I	4	8	GER 102 Beginning German II (3335) (C- and above)			SSH	Business Administration (UG), SEDS, SMG, SoM		
504	KOR 101	Beginning Korean I	4	8				1 year UG SSH Undeclared, 2 year UG SSH World Languages, Literatures and Cultures	3 year UG SSH World Languages, Literatures and Cultures	2 year UG SSH, 3 year UG SSH	
505	KOR 201	Intermediate Korean I	4	8	KOR 102 Beginning Korean II (4791) (C- and above)			SSH	SEDS, SMG, SoM		
506	LING 131	Introduction to Linguistics	3	6				1 year UG SSH Undeclared, 2 year UG SSH World Languages, Literatures and Cultures, Undeclared SSH	1 year UG GSB Business Administration (UG), 1 year UG SEDS, 1 year UG SOM, 2 year UG SMG, 2 year UG SSH Undeclared, World Languages, Literature and Culture	Business Administration (UG), SEDS, SMG, SSH, SoM	
507	LING 270	Languages of Eurasia	3	6				2 year UG SSH World Languages, Literatures and Cultures	World Languages, Literature and Culture	Business Administration (UG), SEDS, SMG, SSH, SoM	
508	LING 273	Survey of Research Methods in Linguistics	3	6	LING 131 Introduction to Linguistics (1394) (C- and above)			World Languages, Literature and Culture	SSH	Business Administration (UG), SEDS, SMG, SoM	
509	LING 277	Language Diversity and Language Universals	3	6	LING 131 Introduction to Linguistics (1394) (C and above)			2 year UG SSH World Languages, Literatures and Cultures	World Languages, Literature and Culture	Business Administration (UG), SEDS, SMG, SSH, SoM	

510	LING 278	Sounds of the World’s Languages	3	6				2 year UG SSH World Languages, Literatures and Cultures	World Languages, Literature and Culture	Business Administration (UG), SEDS, SMG, SSH, SoM	
511	LING 350	Introduction to Generative Syntax	3	6	LING 131 Introduction to Linguistics (1394) (C and above)			World Languages, Literature and Culture	SSH	Business Administration (UG), SEDS, SMG, SoM	
512	LING 371	Practicum in Teaching Foreign Languages	2	4				Instructor's Permission Required. Registration through Add Course form only!			
513	LING 431	Statistics and computational methods in Linguistics	3	6	LING 131 Introduction to Linguistics (1394) (C- and above) AND Subject "LING" BETWEEN 200 and 299			World Languages, Literature and Culture	SSH	Business Administration (UG), SEDS, SMG, SoM	
514	LING 479	Tense, Aspect, Modality and Evidentiality	3	6	LING 273 Survey of Research Methods in Linguistics (2158) (C- and above) AND (LING 375 The Art and Science of Analyzing Languages: Morphosyntax of the World's Languages (6237) (C- and above) OR LING 377 Historical Linguistics (7972) (C- and above) OR () (and above) OR LING 473 Advanced Empirical Methods in Linguistics (6244) (C- and above))			World Languages, Literature and Culture	SSH	Business Administration (UG), SEDS, SMG, SoM	
515	LING 531	Statistics and computational methods in Linguistics	4	8				Eurasian Studies	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
516	LING 579	Tense, Aspect, Modality and Evidentiality	4	8				Eurasian Studies	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
517	LING 731	Statistics and computational methods in Linguistics	4	8				Eurasian Studies	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
518	LING 779	Tense, Aspect, Modality and Evidentiality	4	8				Eurasian Studies	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		

519	PER 101	Beginning Persian I	4	8				Business Administration (UG), SEDS, SMG, SSH, SoM			
520	POL 101	Beginning Polish	4	8				Business Administration (UG), SEDS, SMG, SSH, SoM			
521	POL 102	Beginning Polish II	4	8	POL 101 Beginning Polish (7641) (C- and above)			SSH	Business Administration (UG), SEDS, SMG, SoM		
522	RFL 211	East in Soviet Russian-language culture: origin and fate	3	6				Instructor's Permission Required. Registration through Add Course form only!			
523	RFL 213	Soviet Everyday Life through Cinema	3	6				Instructor's Permission Required. Registration through Add Course form only!			
524	RFL 303	Intensive Advanced Russian	4	8				Instructor's Permission Required. Registration through Add Course form only!			
525	RFL 356	Kazakh Music History	3	6				Instructor's Permission Required. Registration through Add Course form only!			
526	RFL 469	International relations of Eurasia	3	6				Instructor's Permission Required. Registration through Add Course form only!			
527	SPA 101	Beginning Spanish I	4	8				1 year UG SSH Undeclared, 2 year UG SSH World Languages, Literatures and Cultures	3 year UG SSH World Languages, Literatures and Cultures	2 year UG SSH, 3 year UG SSH	
528	SPA 201	Intermediate Spanish I	4	8	SPA 102 Beginning Spanish II (1128) (C- and above)			SSH	SEDS, SMG, SoM		
529	SPA 314	Advanced Spanish Grammar and Composition	3	6	SPA 202 Intermediate Spanish II (1842) (C- and above)			SSH	SEDS, SMG, SoM		

530	WLL 110	Introduction to Literary Studies	3	6				1 year UG SSH Undeclared, 2 year UG SSH World Languages, Literatures and Cultures, Undeclared SSH	1 year UG GSB Business Administration (UG), 1 year UG SEDS, 1 year UG SOM, 2 year UG SMG, 2 year UG SSH Undeclared, World Languages, Literature and Culture	Business Administration (UG), SEDS, SMG, SSH, SoM	
531	WLL 201	World Literature I	3	6				2 year UG SSH World Languages, Literatures and Cultures	World Languages, Literature and Culture	Business Administration (UG), SEDS, SMG, SSH, SoM	
532	WLL 209	Introduction to Translation Studies	3	6				World Languages, Literature and Culture	SSH	Business Administration (UG), SEDS, SMG, SoM	
533	WLL 218	Renaissance in Italy and Beyond	3	6				2 year UG SSH World Languages, Literatures and Cultures	World Languages, Literature and Culture	Business Administration (UG), SEDS, SMG, SSH, SoM	
534	WLL 244	Survey of Nineteenth-Century Russian Literature	3	6				2 year UG SSH World Languages, Literatures and Cultures	World Languages, Literature and Culture	Business Administration (UG), SEDS, SMG, SSH, SoM	
535	WLL 333	Literary Modernism: Tradition and Innovation	3	6	Subject "WLL" BETWEEN 200 and 299			World Languages, Literature and Culture	SSH	Business Administration (UG), SEDS, SMG, SoM	
536	WLL 340	The image of the East in Russophone literature and culture: genesis and meaning	3	6				World Languages, Literature and Culture	SSH	Business Administration (UG), SEDS, SMG, SoM	
537	WLL 399	Independent Study	3	6				Instructor's Permission Required. Registration through Add Course form only!			
538	WLL 400	Research Assistance in Linguistics and Literature	1	2				Instructor's Permission Required. Registration through Add Course form only!			
539	WLL 410	Literary Theory	3	6				World Languages, Literature and Culture	SSH	Business Administration (UG), SEDS, SMG, SoM	
540	WLL 498	Languages, Linguistics, and Literatures Capstone I	3	6				Instructor's Permission Required. Registration through Add Course form only!			

541	WLL 510	Literary Theory	4	8				Eurasian Studies	GSB, GSE, GSPP, SEDS, SMG, SSH, SoM		
Languages, Literature and Linguistics, Sociology and Anthropology											
542	WLL 171/ANT 175	Introduction to Linguistic Anthropology	3	6			ANT 277/WLL 271 Language and Society (1027) (C- and above)	5 year UG SEDS (pending graduation), 5 year UG SSH (pending graduation), Anthropology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	2 year UG SSH, 3 year UG SSH Biological Sciences, SoM, Sociology	Business Administration (UG), SEDS, SMG, SSH	
543	WLL 385/ANT 385	Postcolonial Theory and its Applications in Eurasia	3	6	ANT 110 Introduction to Sociocultural Anthropology (501) (C- and above) OR SOC 101 Introduction to Sociology (508) (C- and above) OR WLL 121 Introduction to Cultural Studies (243) (C- and above) OR WLL 102 /PHIL 102 Language, Experience, Culture (2481) (C- and above)			Anthropology	Sociology, World Languages, Literature and Culture	Business Administration (UG), SEDS, SMG, SSH, SoM	
Physics											
544	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)	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	Business Administration (UG), SEDS, SMG, SSH, SoM		
545	PHYS 201	Introductory Astronomy I	3	6				5 year UG SEDS (pending graduation), 5 year UG SSH (pending graduation), Physics	Business Administration (UG), SEDS, SMG, SSH, SoM		
546	PHYS 221	Classical Mechanics I	3	6	(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)) AND MATH 273 Linear Algebra with Applications (84) (C- and above)			Physics	Business Administration (UG), SEDS, SMG, SSH, SoM		
547	PHYS 250	Introduction to Nuclear Science and Technology	3	6				Physics, SSH	GSB, SEDS, SMG, SoM		

548	PHYS 261	Modern Physics with laboratory	4	8	MATH 162 Calculus II (170) (C- and above) AND (PHYS 152 Introductory Physics II with Lab (1176) (C- and above) OR 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	Business Administration (UG), SEDS, SMG, SSH, SoM		
549	PHYS 315	Applied Mathematical Methods	3	6	(PHYS 172 Physics II for Physics Majors with Laboratory (1402) (C- and above) OR PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above)) AND MATH 274 Introduction to Differential Equations (484) (C- and above)			Physics	Business Administration (UG), SEDS, SMG, SSH, SoM		
550	PHYS 361	Classical Electrodynamics I	3	6		PHYS 315 Applied Mathematical Methods (653) (D and above) OR PHYS 411 Advanced Mathematical Physics (3142) (D and above)		Physics	Business Administration (UG), SEDS, SMG, SSH, SoM		
551	PHYS 395	Research Methods	3	6				Physics			
552	PHYS 421	Parallel Computing	4	8	PHYS 270 Introduction to Scientific Computing and Data Analysis (488) (C- and above) OR CSCI 151 Programming for Scientists and Engineers (192) (C- and above) OR CSCI 115 Programming Fundamentals (5257) (C- and above)			Physics			

553	PHYS 452	Quantum Mechanics II	3	6	PHYS 451 Quantum Mechanics I (1415) (C- and above)			Physics	Business Administration (UG), SEDS, SMG, SSH, SoM		
554	PHYS 463	Astrophysics and General Relativity	3	6	MATH 162 Calculus II (170) (C- and above) AND PHYS 221 Classical Mechanics I (652) (C- and above) AND MATH 274 Introduction to Differential Equations (484) (C- and above)			Physics	Business Administration (UG), SEDS, SMG, SSH, SoM		
555	PHYS 498	Honors Thesis Research	0	0				Instructor's Permission Required. Registration through Add Course form only!			
556	PHYS 505	Classical Mechanics	4	8				Physics	SEDS, SMG, SSH		
557	PHYS 515	Classical Electrodynamics	4	8				Physics	SEDS, SMG, SSH		
558	PHYS 521	Parallel Programming for Scientific Computing	4	8	PHYS 511 Scientific Computing and Data Analysis (3169) (C- and above) OR CSCI 501 Software Principles and Practice (2408) (C- and above) OR DS 501 Fundamentals of Data Science (5218) (C- and above)			Physics			
559	PHYS 550	Analytical Methods in Science	4	8				Physics	SEDS, SMG, SSH		
560	PHYS 563	General Relativity	4	8				Physics	SEDS, SMG, SSH		
561	PHYS 590	Directed Study of Advanced Topics in Modern Physics	4	8				Physics			
562	PHYS 591	Research Methods	4	8				Physics			
563	PHYS 600	Thesis Research	0	0				Physics			
564	PHYS 700-0	Thesis Research	0	0				Physics			
565	PHYS 705	Classical Mechanics	4	8				Physics	SEDS, SMG, SSH		
566	PHYS 715	Classical Electrodynamics	4	8				Physics	SEDS, SMG, SSH		

567	PHYS 721	Parallel Programming for Scientific Computing	4	8	PHYS 711 Scientific Computing and Data Analysis (5300) (C- and above)			Physics			
568	PHYS 750	Analytical Methods in Science	4	8				Physics	SEDS, SMG, SSH		
569	PHYS 763	General Relativity	4	8				Physics	SEDS, SMG, SSH		
570	PHYS 791	Research methods and ethics	3	6				Physics			
Political Science and International Relations											
571	PLS 100	Introduction to the Politics of Central Asia	3	6				5 year UG SEDS (pending graduation), 5 year UG SSH (pending graduation), 6 year UG SEDS (pending graduation), 6 year UG SSH (pending graduation), Undeclared SSH	Anthropology, Biological Sciences, Business Administration (UG), Chemistry, Economics, History, Mathematics, Physics, SEDS, SMG, SoM, Sociology, World Languages, Literature and Culture	Political Science and International Relations	
572	PLS 101	Introduction to Political Science	3	6				5 year UG SEDS (pending graduation), 5 year UG SSH (pending graduation), 6 year UG SEDS (pending graduation), 6 year UG SSH (pending graduation), Undeclared SSH	Anthropology, Biological Sciences, Business Administration (UG), Chemistry, Economics, History, Mathematics, Physics, SEDS, SMG, SoM, Sociology, World Languages, Literature and Culture	Political Science and International Relations	
573	PLS 120	Introduction to Political Theory	3	6				5 year UG SEDS (pending graduation), 5 year UG SSH (pending graduation), 6 year UG SEDS (pending graduation), 6 year UG SSH (pending graduation), Political Science and International Relations, Undeclared SSH	Business Administration (UG), SEDS, SMG, SSH, SoM		

574	PLS 140	Introduction to Comparative Politics	3	6				5 year UG SEDS (pending graduation), 5 year UG SSH (pending graduation), 6 year UG SEDS (pending graduation), 6 year UG SSH (pending graduation), Political Science and International Relations, Undeclared SSH	Business Administration (UG), SEDS, SMG, SSH, SoM		
575	PLS 150	Introduction to International Relations	3	6				5 year UG SEDS (pending graduation), 5 year UG SSH (pending graduation), 6 year UG SEDS (pending graduation), 6 year UG SSH (pending graduation), Political Science and International Relations, Undeclared SSH	Business Administration (UG), SEDS, SMG, SSH, SoM		
576	PLS 210	Political Science Research Methods	3	6				2 year UG SSH Political Sciences and International Relations, 3 year UG SSH Political Sciences and International Relations	Political Science and International Relations		
577	PLS 211	Quantitative Methods	3	6			ECON 211 Economic Statistics (2280) (C- and above)	2 year UG SSH Political Sciences and International Relations, 3 year UG SSH Political Sciences and International Relations	Political Science and International Relations		
578	PLS 330	Politics and Governance of Eurasia	3	6	PLS 210 Political Science Research Methods (129) (C- and above)			3 year UG SSH Political Sciences and International Relations	Political Science and International Relations	SSH	
579	PLS 338	U.S. Government and Politics	3	6	(PLS 140 Introduction to Comparative Politics (223) (C- and above) OR PLS 101 Introduction to Political Science (513) (C- and above)) AND PLS 210 Political Science Research Methods (129) (C- and above)			3 year UG SSH Political Sciences and International Relations	Political Science and International Relations	SSH	
580	PLS 341	Politics of Development	3	6	PLS 210 Political Science Research Methods (129) (C- and above)			3 year UG SSH Political Sciences and International Relations	Political Science and International Relations	SSH	

581	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)			3 year UG SSH Political Sciences and International Relations	Political Science and International Relations	SSH	
582	PLS 354	Introduction to International Law	3	6	PLS 150 Introduction to International Relations (511) (C- and above) AND PLS 140 Introduction to Comparative Politics (223) (C- and above) AND PLS 120 Introduction to Political Theory (512) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above)			3 year UG SSH Political Sciences and International Relations	Political Science and International Relations	SSH	
583	PLS 356	International Politics of the Korean Peninsula	3	6	PLS 210 Political Science Research Methods (129) (C- and above) AND PLS 150 Introduction to International Relations (511) (C- and above)			Political Science and International Relations			
584	PLS 360	Foreign Policy Analysis	3	6	PLS 150 Introduction to International Relations (511) (C- and above)			3 year UG SSH Political Sciences and International Relations	Political Science and International Relations	SSH	
585	PLS 370	Law, Politics and Society	3	6	PLS 210 Political Science Research Methods (129) (C- and above)			3 year UG SSH Political Sciences and International Relations	Political Science and International Relations	SSH	
586	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!			
587	PLS 416	Experimental Political Science	3	6	PLS 210 Political Science Research Methods (129) (C- and above) AND PLS 211 Quantitative Methods (221) (C- and above)			Political Science and International Relations		SSH	

588	PLS 424	Issues in the Philosophy of Social Science	3	6	PLS 120 Introduction to Political Theory (512) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above)			Political Science and International Relations		SSH	
589	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)			Political Science and International Relations		SSH	
590	PLS 431	Politics and Governance of the Russian Federation	3	6	PLS 210 Political Science Research Methods (129) (C- and above)			Political Science and International Relations		SSH	
591	PLS 432	Comparative Democratization	3	6	PLS 210 Political Science Research Methods (129) (C- and above)			Political Science and International Relations		SSH	
592	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)			Political Science and International Relations		SSH	
593	PLS 460	Environmental Politics	3	6				Political Science and International Relations		SSH	
594	PLS 463	NGO Politics	3	6	PLS 150 Introduction to International Relations (511) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above)			Political Science and International Relations		SSH	
595	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!			
596	PLS 510	Quantitative Research Methods	4	8				Political Science and International Relations	Eurasian Studies, GSPP		
597	PLS 516	Experimental Political Science	4	8	PLS 511 Qualitative Methods in Political Science (1631) (C- and above)			Political Science and International Relations	Eurasian Studies, GSPP		

598	PLS 524	Issues in the Philosophy of Social Science	4	8				Political Science and International Relations	Eurasian Studies, GSPP		
599	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	Eurasian Studies, GSPP		
600	PLS 531	Politics and Governance of the Russian Federation	4	8				Political Science and International Relations	Eurasian Studies, GSPP		
601	PLS 541	Advanced Topics in Comparative Politics	4	8				Political Science and International Relations		GSPP, SSH	
602	PLS 550	Core Seminar in IR	4	8				Political Science and International Relations	Eurasian Studies, GSPP		
603	PLS 560	Environmental Politics	4	8				Political Science and International Relations	Eurasian Studies, GSPP		
604	PLS 563	NGO Politics	4	8				Political Science and International Relations	Eurasian Studies, GSPP		
605	PLS 581	Independent Study in Political Science	4	8				Instructor's Permission Required. Registration through Add Course form only!			
606	PLS 598	MA Thesis I	6	12				Political Science and International Relations			
607	PLS 724	Issues in the Philosophy of Social Science	4	8				Eurasian Studies, GSPP			
608	PLS 726	Hannah Arendt on Power, Violence, and Revolution	4	8				Eurasian Studies, GSPP			
609	PLS 741	Advanced Topics in Comparative Politics	4	8						GSPP, SSH	
610	PLS 760	Environmental Politics	4	8				Eurasian Studies, GSPP			
611	PLS 763	NGO Politics	4	8				Eurasian Studies, GSPP			
SSH											
612	SSH 300	School of Sciences and Humanities Internship	3	6				Instructor's Permission Required. Registration through Add Course form only!			
613	SSH 301	School of Sciences and Humanities Internship: Second Experience	3	6				Instructor's Permission Required. Registration through Add Course form only!			
Sociology and Anthropology											
614	ANT 101	Being Human: An Introduction to Four Field Anthropology	3	6				5 year UG SEDS (pending graduation), 5 year UG SSH (pending graduation), Anthropology, Undeclared SEDS, Undeclared SSH	2 year UG SSH, 3 year UG SSH Biological Sciences, SoM, Sociology	Business Administration (UG), SEDS, SMG, SSH	

615	ANT 160	Introduction to Biological Anthropology	3	6			ANT 361 Human Evolution: Bones, Stones and Genomes (160) (C- and above)	5 year UG SEDS (pending graduation), 5 year UG SSH (pending graduation), Anthropology, Undeclared SEDS, Undeclared SSH	2 year UG SSH, 3 year UG SSH Biological Sciences, SoM	Business Administration (UG), SEDS, SMG, SSH	
616	ANT 240	Laboratory Methods in Archaeology	3	6				Anthropology	Sociology	Business Administration (UG), SEDS, SMG, SSH	
617	ANT 333	Anthropology of Space	3	6				Anthropology	Sociology	Business Administration (UG), SEDS, SMG, SSH	
618	ANT 401	Research Assistance in Anthropology	1	2				Instructor's Permission Required. Registration through Add Course form only!			
619	ANT 475	Digital Ethnographies	3	6	ANT 110 Introduction to Sociocultural Anthropology (501) (C- and above) OR PLS 210 Political Science Research Methods (129) (C- and above) OR SOC 201 Social Science Research Methods (1341) (C- and above) OR ANT 214/SOC 214 Qualitative Methods (1033) (C- and above)			Anthropology	Sociology	SEDS, SMG, SSH, SoM	
620	ANT 498	Capstone Seminar I	3	6				Instructor's Permission Required. Registration through Add Course form only!			
621	ANT 585	Postcolonial Theory and Its Application in Eurasia	4	8				Eurasian Studies			
622	SOC 101	Introduction to Sociology	3	6				5 year UG SEDS (pending graduation), 5 year UG SSH (pending graduation), Sociology, Undeclared SEDS, Undeclared SSH	2 year UG SSH, 3 year UG SSH Biological Sciences, Anthropology, SoM	Business Administration (UG), SEDS, SMG, SSH	

623	SOC 201	Social Science Research Methods	3	6				3 year UG SSH Anthropology, 3 year UG SSH Sociology, 4 year UG SSH Anthropology, 4 year UG SSH Sociology, 5 year UG SEDS (pending graduation), 5 year UG SSH (pending graduation), 5 year UG SSH Anthropology, Sociology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	2 year UG SSH, 3 year UG SSH Biological Sciences, Anthropology, SoM	Business Administration (UG), SEDS, SMG, SSH	
624	SOC 203	Quantitative Methods in Sociology	3	6				3 year UG SSH Anthropology, 3 year UG SSH Sociology, 4 year UG SSH Anthropology, 4 year UG SSH Sociology, 5 year UG SSH Anthropology, 5 year UG SSH Sociology	Anthropology, Sociology	Business Administration (UG), SEDS, SMG, SSH, SoM	
625	SOC 210	Gender and Society	3	6				3 year UG SSH Anthropology, 3 year UG SSH Sociology, 4 year UG SSH Anthropology, 4 year UG SSH Sociology, 5 year UG SSH Anthropology, 5 year UG SSH Sociology	Anthropology, Sociology	Business Administration (UG), SEDS, SMG, SSH, SoM	
626	SOC 220	Science, Technology, and Society	3	6				3 year UG SSH Anthropology, 3 year UG SSH Sociology, 4 year UG SSH Anthropology, 4 year UG SSH Sociology, 5 year UG SSH Anthropology, 5 year UG SSH Sociology	Anthropology, Sociology	Business Administration (UG), SEDS, SMG, SSH, SoM	
627	SOC 221	International Migration	3	6				3 year UG SSH Anthropology, 3 year UG SSH Sociology, 4 year UG SSH Anthropology, 4 year UG SSH Sociology, 5 year UG SSH Anthropology, 5 year UG SSH Sociology	Anthropology, Sociology	Business Administration (UG), SEDS, SMG, SSH, SoM	
628	SOC 223	Social Movements: How People Make Change	3	6				3 year UG SSH Anthropology, 3 year UG SSH Sociology, 4 year UG SSH Anthropology, 4 year UG SSH Sociology, 5 year UG SSH Anthropology, 5 year UG SSH Sociology	Anthropology, Sociology	Business Administration (UG), SEDS, SMG, SSH, SoM	

629	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)			4 year UG SSH Sociology, 5 year UG SSH Sociology	3 year UG SSH Sociology	Anthropology, Sociology	
630	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)			3 year UG SSH Anthropology, 3 year UG SSH Sociology, 4 year UG SSH Anthropology, 4 year UG SSH Sociology, 5 year UG SSH Anthropology, 5 year UG SSH Sociology	Anthropology, Sociology	SSH	
631	SOC 313	Social Foundations of Education	3	6	SOC 101 Introduction to Sociology (508) (C- and above) OR SOC 115 Global Social Problems (1032) (C- and above)			3 year UG SSH Anthropology, 3 year UG SSH Sociology, 4 year UG SSH Anthropology, 4 year UG SSH Sociology, 5 year UG SSH Anthropology, 5 year UG SSH Sociology	Anthropology, Sociology	SSH	

632	SOC 350	Digital Deviance	3	6	SOC 201 Social Science Research Methods (1341) (C- and above) OR SOC 203 Quantitative Methods in Sociology (1377) (C- and above) OR SOC 210 Gender and Society (226) (C- and above) OR SOC 211 Social Justice in a Global Society (162) (C- and above) OR SOC 213 Work and Society (453) (C- and above) OR SOC 215 Sociology of Race and Ethnicity (3647) (C- and above) OR SOC 217 Sociology of the Family (1324) (C- and above) OR SOC 220 Science, Technology, and Society (2512) (C- and above) OR SOC 221 International Migration (2516) (C- and above) OR SOC 223 Social Movements: How People Make Change (3357) (C- and above) OR SOC 301 Classical Sociological Theory (683) (C- and above) OR SOC 310 Social Inequality (1031) (C- and above) OR SOC 314 Organizations and Society (1328) (C- and above) OR SOC 317 Economy and Society (2513) (C- and above) OR SOC 318 Sexuality and Gender in a Transnational World (3648) (C- and above)			3 year UG SSH Anthropology, 3 year UG SSH Sociology, 4 year UG SSH Anthropology, 4 year UG SSH Sociology, 5 year UG SSH Anthropology, 5 year UG SSH Sociology	Anthropology, Sociology	SEDS, SMG, SSH, SoM	

633	SOC 399	Special Topics in Sociology	3	6				3 year UG SSH Anthropology, 3 year UG SSH Sociology, 4 year UG SSH Anthropology, 4 year UG SSH Sociology, 5 year UG SSH Anthropology, 5 year UG SSH Sociology	Anthropology, Sociology	Business Administration (UG), SEDS, SMG, SSH, SoM	
634	SOC 400	Research Assistance in Sociology	1	2				Instructor's Permission Required. Registration through Add Course form only!			
635	SOC 401	Research Assistance in Sociology	1	2				Instructor's Permission Required. Registration through Add Course form only!			
636	SOC 402	Research Assistance in Sociology	1	2							
637	SOC 475	Sociology of Consumption	3	6	Subject "SOC" BETWEEN 200 and 299			3 year UG SSH Sociology, 4 year UG SSH Sociology, 5 year UG SSH Sociology	Anthropology, Sociology	SSH	
638	SOC 485	Statistics and Machine Learning for Social Reform	3	6	(SOC 201 Social Science Research Methods (1341) (C- and above) AND SOC 203 Quantitative Methods in Sociology (1377) (C- and above)) OR (PLS 210 Political Science Research Methods (129) (C- and above) AND PLS 211 Quantitative Methods (221) (C- and above)) OR (SOC 101 Introduction to Sociology (508) (C- and above) AND ECON 301 Econometrics I (664) (C- and above))		CSCI 235 Programming Languages (638) (C- and above) OR ECON 318 Applied Econometrics (6078) (C- and above) OR CSCI 344 Data Mining and Decision Support (1916) (C- and above) OR PETE 410 Introduction to Data Science and Machine Learning (8128) (C- and above) OR CSCI 447 Machine Learning: Theory and Practice (4828) (C- and above) OR MATH 449 Statistical Programming (2104) (C- and above) OR ELCE 455 Machine Learning with Python (6365) (C- and above)	Anthropology, Sociology	SEDS, SMG, SSH, SoM		

639	SOC 498	Capstone Seminar Part I	3	6				Instructor's Permission Required. Registration through Add Course form only!			
640	SOC 510	Social Inequality	4	8				Eurasian Studies			
641	SOC 710	Social Inequality	4	8				Eurasian Studies			
Sociology and Anthropology, Sociology and Anthropology											
642	ANT 214/SOC 214	Qualitative Methods	3	6				3 year UG SSH Anthropology, 3 year UG SSH Sociology, 4 year UG SSH Anthropology, 4 year UG SSH Sociology, 5 year UG SSH Anthropology, 5 year UG SSH Sociology	Anthropology, Sociology	Business Administration (UG), SEDS, SMG, SSH	
643	ANT 285/SOC 212	Food and Society	3	6				3 year UG SSH Anthropology, 3 year UG SSH Sociology, 4 year UG SSH Anthropology, 4 year UG SSH Sociology, 5 year UG SSH Anthropology, 5 year UG SSH Sociology	Anthropology, Sociology	Business Administration (UG), SEDS, SMG, SSH	
644	ANT 482/SOC 482	Climate Change, Future Energy and Sustainability	3	6	ANT 214/SOC 214 Qualitative Methods (1033) (C- and above) OR SOC 203 Quantitative Methods in Sociology (1377) (C- and above)			3 year UG SSH Anthropology, 3 year UG SSH Sociology, 4 year UG SSH Anthropology, 4 year UG SSH Sociology, 5 year UG SSH Anthropology, 5 year UG SSH Sociology			
SEDS											
Electrical and Computer Engineering											
645	DELCE 700	Thesis Research	89	178							
SoE											
Chemical and Materials Engineering											
646	CHME 200	Basic Principles and Calculations in Chemical Engineering	3	6				2 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
647	CHME 201	Chemical Engineering Thermodynamics	3	6				2 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
648	CHME 222	Inorganic and Analytical Chemistry	3	6				2 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
649	CHME 300	Heat and Mass Transfer	3	6				3 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
650	CHME 301	Applied Mathematics for Process Design	3	6				3 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		

651	CHME 302	Instrumental Methods of Analysis for Engineers	3	6				3 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
652	CHME 351	Environment and Development	3	6				3 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
653	CHME 353	Electrochemical Engineering	3	6				3 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
654	CHME 354	Introduction to Metallurgy	3	6				3 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
655	CHME 400	Process Design and Simulation	3	6	CHME 300 Heat and Mass Transfer (5952) (D and above) AND CHME 304 Chemical Reaction Engineering (6168) (D and above)			4 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
656	CHME 401	Chemical Engineering Lab II	3	6				4 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
657	CHME 453	Multiphase Systems	3	6	CHME 202 Fluid Mechanics (5543) (D and above)			4 year UG SEDS Chemical and Materials Engineering	Chemical and Materials Engineering		
658	DCHME 700	Thesis Research	89	178							
659	DCHME 700-0	Thesis Research	0	0				Chemical Engineering	Science, Engineering and Technology		
660	DCHME 755	Integrated Computational Materials Engineering	4	8				Chemical Engineering	Science, Engineering and Technology		
661	DCHME 761	Advanced Chemical Reaction Engineering	4	8				Chemical Engineering	Science, Engineering and Technology		
662	DCHME 762	Advanced Materials Processing	4	8				Chemical Engineering	Science, Engineering and Technology		
663	MBME 601	Master Thesis I	12	24				2 year Gr SEDS Biomedical Engineering			

664	MBME 603	Biomaterials Science & Engineering	3	6				1 year Gr SEDS Biomedical Engineering	Biomedical Engineering, Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Engineering Management, Mechanical and Aerospace Engineering, Robotics		
665	MBME 604	Biosensors	3	6				1 year Gr SEDS Biomedical Engineering	Biomedical Engineering, Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Engineering Management, Mechanical and Aerospace Engineering, Robotics		

666	MBME 610	Anatomy and Physiology for Biomedical Engineers	3	6				1 year Gr SEDS Biomedical Engineering	Biomedical Engineering, Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Engineering Management, Mechanical and Aerospace Engineering, Robotics		
667	MBME 710	Biophotonics	3	6				2 year Gr SEDS Biomedical Engineering	Biomedical Engineering, Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Engineering Management, Mechanical and Aerospace Engineering, Robotics		
668	MCHME 601	Master Thesis I	12	24				2 year Gr SEDS Chemical and Materials Engineering			

669	MCHME 603	Advanced Materials Processing	3	6				1 year Gr SEDS Chemical and Materials Engineering	Biomedical Engineering, Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Engineering Management, Mechanical and Aerospace Engineering, Robotics		
670	MCHME 604	Advanced Materials Characterization Methods	3	6				1 year Gr SEDS Chemical and Materials Engineering	Biomedical Engineering, Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Engineering Management, Mechanical and Aerospace Engineering, Robotics		

671	MCHME 605	Advanced Chemical Reaction Engineering	3	6				1 year Gr SEDS Chemical and Materials Engineering	Biomedical Engineering, Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Engineering Management, Mechanical and Aerospace Engineering, Robotics		
672	MCHME 714	Computational Materials Engineering	3	6				2 year Gr SEDS Chemical and Materials Engineering	Biomedical Engineering, Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Engineering Management, Mechanical and Aerospace Engineering, Robotics		
Civil Engineering											

673	MSC 602	Advanced Applied Mathematics	3	6				1 year Gr SEDS Biomedical Engineering, 1 year Gr SEDS Chemical and Materials 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 Electrical and Computer Engineering		
674	MSC 615	Advanced Statistics and Probability	3	6				1 year Gr SEDS Engineering Management			
Civil Engineering, Communication and Composition											
675	MSC 601	Technical Communication	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 Computer Science, 1 year Gr SEDS Electrical and Computer Engineering, 1 year Gr SEDS Robotics	SMG	SEDS	
Civil and Environmental Engineering											
676	CEE 200	Structural Mechanics I	3	6				2 year UG SEDS Civil and Environmental Engineering, 2 year UG SEDS Mechanical and Aerospace Engineering	3 year UG SEDS Civil and Environmental Engineering, 3 year UG SEDS Mechanical and Aerospace Engineering	4 year UG SEDS Civil and Environmental Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering, 5 year UG SEDS Civil and Environmental Engineering (pending graduation)	

677	CEE 201	Environmental Chemistry	3	6				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 (pending graduation)	
678	CEE 204	Civil Engineering CAD and Surveying	3	6				2 year UG SEDS Civil and Environmental Engineering	3 year UG SEDS Civil and Environmental Engineering		
679	CEE 300	Structural Design – Concrete	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 (pending graduation)		
680	CEE 302	Geotechnical Engineering	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 (pending graduation)		
681	CEE 304	Fluid Mechanics	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 (pending graduation)		

682	CEE 306	Civil Engineering Materials	3	6	ENG 102 Engineering Materials I (4708) (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 (pending graduation)		
683	CEE 401	Construction Technology and Management	3	6	CEE 306 Civil Engineering Materials (5897) (D and above)			4 year UG SEDS Civil and Environmental Engineering	5 year UG SEDS Civil and Environmental Engineering (pending graduation)		
684	CEE 450	Behavior and Design of Structural System	3	6	CEE 300 Structural Design – Concrete (5895) (D and above) AND CEE 301 Structural Design – Steel (6157) (D and above)			4 year UG SEDS Civil and Environmental Engineering	5 year UG SEDS Civil and Environmental Engineering (pending graduation)		
685	CEE 460	Water Supply and Distribution Management	3	6	CEE 305 Hydraulics and Hydrology (6177) (D and above)			4 year UG SEDS Civil and Environmental Engineering	5 year UG SEDS Civil and Environmental Engineering (pending graduation)		
686	CEE 462	Pavement Design and Performance	3	6	CEE 306 Civil Engineering Materials (5897) (D and above) AND CEE 303 Geotechnical Design (6158) (D and above)			4 year UG SEDS Civil and Environmental Engineering	5 year UG SEDS Civil and Environmental Engineering (pending graduation)		
687	CEE 463	Individual Research Project in Civil & Environmental Engineering 1	3	6				4 year UG SEDS Civil and Environmental Engineering	5 year UG SEDS Civil and Environmental Engineering (pending graduation)		
688	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 (pending graduation)		
689	DCEE 700-0	Thesis Research	0	0				Civil Engineering			
690	DCEE 750	Finite Element Methods	4	8				1 year PhD SEDS Civil Engineering	Civil Engineering		

691	DCEE 757	Advanced Environmental Chemistry	4	8				1 year PhD SEDS Civil Engineering	Civil Engineering		
692	DCEE 760	Advanced Foundation Engineering	4	8				1 year PhD SEDS Civil Engineering	Civil Engineering		
693	DCEE 761	Advanced Soil Mechanics	4	8				1 year PhD SEDS Civil Engineering	Civil Engineering		
694	DCEE 772	Engineering Management and Engineering Economy	4	8				1 year PhD SEDS Civil Engineering	Civil Engineering		
695	DCEE 773	Unsaturated Soil Mechanics for Engineering Practice	4	8				1 year PhD SEDS Civil Engineering	Civil Engineering		
696	EMEM 533	Engineering Management and Engineering Economy	3	6				Engineering Management			
697	EMEM 535	Managing Product and Service Development	3	6				Engineering Management			
698	EMEM 537	Engineering Decision Tools	3	6				Engineering Management			
699	EMEM 538	Knowledge and Innovation Management	3	6				Engineering Management			
700	EMEM 539	Big Data and Information Management	3	6				Engineering Management			
701	EMEM 549	Capstone Project I	3	6				Engineering Management			
702	EMEM 552	Capstone Project Planning	6	12				Engineering Management			
703	EMEM 554	Operations and Supply Chain Management	3	6				Engineering Management			
704	MCEE 601	Master Thesis I	12	24	MCEE 600 Research Seminar (4692) (P)			2 year Gr SEDS Civil and Environmental Engineering			
705	MCEE 603	Finite Element Methods	3	6				1 year Gr SEDS Civil and Environmental Engineering			
706	MCEE 604	Advanced Soil Mechanics	3	6				1 year Gr SEDS Civil and Environmental Engineering			
707	MCEE 605	Advanced Environmental Chemistry	3	6				1 year Gr SEDS Civil and Environmental Engineering			
708	MCEE 708	Advanced Foundation Engineering	3	6				2 year Gr SEDS Civil and Environmental Engineering			
Economics, SMG											

709	ECON 220/SMG 200	Resource Economics	3	6	MATH 161 Calculus I (118) (C- and above) OR MATH 162 Calculus II (170) (C- and above)		ECON 201 Intermediate Microeconomics (133) (C- and above) OR ECON 202 Intermediate Macroeconomics (207) (C- and above)	3 year UG SMG, 4 year UG SMG	4 year UG SEDS, 4 year UG SSH		
Electrical and Computer Engineering											
710	DELCE 700-0	Thesis Research	0	0				Electrical Engineering			
711	DELCE 753	Stochastic Processes	4	8				Electrical Engineering	Science, Engineering and Technology	Chemical Engineering, Civil Engineering, Computer Science , Mechanical Engineering, Robotics Engineering	
712	DELCE 760	Advanced System Modelling and Control	4	8				Electrical Engineering	Science, Engineering and Technology	Chemical Engineering, Civil Engineering, Computer Science , Mechanical Engineering, Robotics Engineering	
713	DELCE 761	Advanced Data Structures and Algorithms	4	8				Electrical Engineering	Science, Engineering and Technology	Chemical Engineering, Civil Engineering, Computer Science , Mechanical Engineering, Robotics Engineering	
714	DELCE 766	Advanced IIOT and Cybersecurity	4	8				Electrical Engineering	Chemical Engineering, Civil Engineering, Mechanical Engineering		

715	ELCE 200	Circuits Theory I	3	6	MATH 162 Calculus II (170) (C- and above) AND PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above)			2 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
716	ELCE 203	Signals and Systems	3	6	MATH 162 Calculus II (170) (C- and above) AND PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above)			2 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
717	ELCE 203L	Signals and Systems Laboratory	1	2		ELCE 203 Signals and Systems (4993) (D and above)		2 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
718	ELCE 204	Solid State Devices	3	6	ENG 103 Engineering Materials II (4818) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
719	ELCE 204L	Solid State Devices Laboratory	1	2	ENG 103 Engineering Materials II (4818) (C- and above)	ELCE 204 Solid State Devices (5508) (D and above)		3 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
720	ELCE 205	Discrete Mathematics	3	6	MATH 162 Calculus II (170) (C- and above)			2 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
721	ELCE 301	Electronic Circuits	3	6	ELCE 201 Circuit Theory (5507) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
722	ELCE 301L	Electronic Circuits Laboratory	1	2	ELCE 201L Circuit Theory Laboratory (6179) (C- and above)	ELCE 301 Electronic Circuits (5918) (C- and above)		3 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
723	ELCE 304	Computer Networks	3	6	ENG 101 Programming for Engineers (4517) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
724	ELCE 304L	Computer Networks Laboratory	1	2		ELCE 304 Computer Networks (5920) (D and above)		3 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
725	ELCE 306	Linear Control Theory	3	6	ELCE 203 Signals and Systems (4993) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		

726	ELCE 307	Digital Signal Processing	3	6	ELCE 203 Signals and Systems (4993) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
727	ELCE 307L	Digital Signal Processing Laboratory	1	2	ELCE 203 Signals and Systems (4993) (C- and above) AND ELCE 203L Signals and Systems Laboratory (6182) (C- and above)	ELCE 307 Digital Signal Processing (5921) (D and above)		3 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
728	ELCE 352	Applied Simulation Laboratory	2	4	ELCE 200 Introduction to Electrical Circuits (4991) (D+ and above)			3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering	5 year UG SEDS Electrical and Computer Engineering (pending graduation)	
729	ELCE 354	Power Electronics	3	6	ELCE 201 Circuit Theory (5507) (D and above)			4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
730	ELCE 355	Power Systems Protection	3	6	ELCE 303 Power System Analysis (6180) (D and above)			4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
731	ELCE 455	Machine Learning with Python	3	6	ENG 101 Programming for Engineers (4517) (C- and above) OR CSCI 151 Programming for Scientists and Engineers (192) (C- and above)			4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
732	ELCE 462	Wireless Networks	3	6	ENG 201 Applied Probability and Statistics (5505) (C- and above) AND (ELCE 308 Communication Systems (5922) (C- and above) OR ELCE 304 Computer Networks (5920) (C- and above))			4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		

733	ELCE 463	Network Science: Methods and Applications	3	6	ENG 101 Programming for Engineers (4517) (C- and above) AND MATH 162 Calculus II (170) (C- and above) AND ENG 200 Engineering Mathematics III (Differential Equations and Linear Algebra) (5009) (C- and above)			4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
734	ELCE 466	RF and Microwave Circuits	3	6				4 year UG SEDS Electrical and Computer Engineering	Electrical and Computer Engineering		
735	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 Electrical and Computer Engineering	1 year UG SEDS Chemical and Materials Engineering, 1 year UG SEDS Civil and Environmental Engineering, 1 year UG SEDS Mechanical and Aerospace Engineering		
736	MECE 601	Master Thesis I	12	24				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering		

737	MECE 603	Advanced Data Structures and Algorithms	3	6				1 year Gr SEDS Electrical and Computer Engineering	Biomedical Engineering, Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Engineering Management, Mechanical and Aerospace Engineering, Robotics		
738	MECE 605	Statistics and Probability for Electrical and Computer Engineers	3	6				1 year Gr SEDS Electrical and Computer Engineering	Biomedical Engineering, Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Engineering Management, Mechanical and Aerospace Engineering, Robotics		

739	MECE 606	Embedded Systems and Applications	3	6				1 year Gr SEDS Electrical and Computer Engineering	Biomedical Engineering, Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Engineering Management, Mechanical and Aerospace Engineering, Robotics		
740	MECE 702	Advanced Power Electronics	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering		
741	MECE 724	System Modelling and Control	3	6				1 year Gr SEDS Electrical and Computer Engineering	2 year Gr SEDS Electrical and Computer Engineering		
742	MECE 726	Modern Semiconductor Devices and Systems	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering		
743	MECE 727	Biosensors	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering		
744	MECE 731	RF and Microwave Circuits	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering		
745	MECE 734	Complex Networks: Modeling and Analysis	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering		
746	MECE 735	Automation, IIOT and Cybersecurity	3	6				2 year Gr SEDS Electrical and Computer Engineering	1 year Gr SEDS Electrical and Computer Engineering		
Geosciences											

747	GEOL 201	Mineralogy	3	6	GEOL 101 Fundamentals of Geology (4774) (C- and above)			2 year UG SMG Geology	3 year UG SMG Geology, 3 year UG SMG Mining Engineering, 4 year UG SMG Geology, 4 year UG SMG Mining Engineering		
748	GEOL 202	Geologic Maps and Cross-Sections	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	2 year UG SMG Mining Engineering		
749	GEOL 203	Sedimentary petrology	3	6	GEOL 101 Fundamentals of Geology (4774) (D and above) OR GEOL 202 Geologic Maps and Cross-Sections (5123) (D and above)	GEOL 202 Geologic Maps and Cross-Sections (5123) (D and above)		3 year UG SMG Geology			
750	GEOL 207	Geomorphology	3	6	GEOL 101 Fundamentals of Geology (4774) (C- and above) OR GEOL 102 Fundamentals of Geology (4772) (C- and above)			2 year UG SMG Geology			
751	GEOL 302	Thermodynamics and Geochemistry	3	6	GEOL 101 Fundamentals of Geology (4774) (D and above) OR GEOL 102 Fundamentals of Geology (4772) (D and above)			3 year UG SMG Geology			
752	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	2 year UG SMG Mining Engineering, 3 year UG SMG Mining Engineering		

753	GEOL 305	Geology of ore deposits	3	6	GEOL 101 Fundamentals of Geology (4774) (D and above) OR GEOL 102 Fundamentals of Geology (4772) (D and above) OR GEOL 201 Mineralogy (5122) (D and above)			3 year UG SMG Geology	2 year UG SMG Mining Engineering, 3 year UG SMG Mining Engineering		
754	GEOL 310	Field Geology 2	3	6	GEOL 303 Structural Geology and Tectonics (5874) (D and above) OR GEOL 301 Igneous and metamorphic petrology (5886) (D and above)			4 year UG SMG Geology	4 year UG SMG Mining Engineering		
755	GEOL 401	Petroleum Geology and Geochemistry	3	6				4 year UG SMG Geology, 4 year UG SMG Petroleum Engineering			
756	GEOL 402	Water Resource Management	3	6				4 year UG SMG Geology	4 year UG SMG Mining Engineering	4 year UG SEDS, 4 year UG SSH	
757	GEOL 404	Research Project I	3	6				4 year UG SMG Geology			
758	GEOL 412	Advanced Hydrogeology	3	6	GEOL 309 Hydrogeology (6152) (C- and above)			4 year UG SMG Geology			
759	GEOL 501	Advanced Economic Geology	3	6				1 year Gr SMG Geosciences			
760	GEOL 502	Advanced Petroleum Geology	3	6				1 year Gr SMG Geosciences			
761	GEOL 503	Advanced Sedimentology	3	6				1 year Gr SMG Geosciences			
762	GEOL 504	Advanced Geochemistry	3	6				1 year Gr SMG Geosciences			
763	GEOL 505	Advanced Geophysics	3	6				1 year Gr SMG Geosciences			
764	GEOL 509	Advanced Field Geology	3	6				2 year Gr SMG Geosciences			
765	GEOL 601	Advanced Tectonics and Geodynamics	3	6				2 year Gr SMG Geosciences			
766	GEOL 603	Advanced Hydrogeology	3	6				2 year Gr SMG Geosciences			
767	GEOL 689	Thesis I	9	18				2 year Gr SMG Geosciences			
Mechanical and Aerospace Engineering											
768	DMAE 700	Thesis Research	89	178							

769	DMAE 700-0	Thesis Research	0	0				Mechanical Engineering	SEDS		
770	DMAE 701	Advanced Applied Mathematics	4	8				Mechanical Engineering	SEDS		
771	DMAE 751	Modern Control Engineering	4	8				Mechanical Engineering	SEDS		
772	DMAE 757	Design Optimization	4	8				2 year Gr SEDS Mechanical and Aerospace Engineering, Mechanical Engineering	1 year Gr SEDS Mechanical and Aerospace Engineering		
773	DMAE 763	Computational Fluid Structure Interaction	4	8				Mechanical Engineering	SEDS		
774	DMAE 765	Advanced Manufacturing Processes and Strategies	4	8				Mechanical Engineering	SEDS		
775	DMAE 772	Advanced Materials and Composites	4	8				Mechanical Engineering	SEDS		
776	DMAE 773	Advanced Fluid Mechanics with Applications	4	8				Mechanical Engineering	SEDS		
777	ENG 100	Introduction to Engineering	3	6				1 year UG SEDS Chemical and Materials Engineering, 1 year UG SEDS Civil and Environmental Engineering, 1 year UG SEDS Electrical and Computer Engineering, 1 year UG SEDS Mechanical and Aerospace Engineering			

778	ENG 200	Engineering Mathematics III (Differential Equations and Linear Algebra)	3	6	MATH 162 Calculus II (170) (C and above)			2 year UG SEDS Chemical and Materials Engineering, 2 year UG SEDS Civil and Environmental Engineering, 2 year UG SEDS Electrical and Computer Engineering, 2 year UG SEDS Mechanical and Aerospace Engineering, 3 year UG SEDS Electrical and Computer Engineering	3 year UG SEDS Civil and Environmental Engineering, 3 year UG SEDS Mechanical and Aerospace Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering, 5 year UG SEDS Mechanical and Aerospace Engineering (pending graduation), Chemical and Materials Engineering, Electrical and Computer Engineering	4 year UG SEDS Civil and Environmental Engineering, SMG	
779	ENG 400	Capstone Project	3	6				4 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Civil and Environmental Engineering, 4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering	5 year UG SEDS Civil and Environmental Engineering (pending graduation), 5 year UG SEDS Electrical and Computer Engineering (pending graduation), Chemical and Materials Engineering		
780	MAE 201	Computer Aided Design	3	6				2 year UG SEDS Mechanical and Aerospace Engineering	3 year UG SEDS Mechanical and Aerospace Engineering	4 year UG SEDS Mechanical and Aerospace Engineering	
781	MAE 202	Environmental Science	3	6				2 year UG SEDS Mechanical and Aerospace Engineering	3 year UG SEDS Mechanical and Aerospace Engineering	4 year UG SEDS Mechanical and Aerospace Engineering	

782	MAE 300	Fluid Mechanics I	3	6	PHYS 161 Physics I for Scientists and Engineers with Laboratory (116) (D and above)			Instructor's Permission Required. Registration through Add Course form only!			
783	MAE 301	Engineering Thermodynamics	3	6				Instructor's Permission Required. Registration through Add Course form only!			
784	MAE 303	Control Systems	3	6				Instructor's Permission Required. Registration through Add Course form only!			
785	MAE 307	Engineering Dynamics II	3	6	MAE 206 Engineering Dynamics I (5535) (D and above)			Instructor's Permission Required. Registration through Add Course form only!			
786	MAE 400	Heat Transfer	3	6	MAE 300 Fluid Mechanics I (5926) (D and above) AND MAE 301 Engineering Thermodynamics (5927) (D and above)			4 year UG SEDS Mechanical and Aerospace Engineering	5 year UG SEDS Mechanical and Aerospace Engineering (pending graduation)		
787	MAE 401	Mechanical Systems Design	3	6	MAE 302 Machine Elements Design (5928) (D and above)			4 year UG SEDS Mechanical and Aerospace Engineering	5 year UG SEDS Mechanical and Aerospace Engineering (pending graduation)		
788	MAE 450	Additive Manufacturing	3	6	MAE 205 Material and Manufacturing I (5534) (D and above)			4 year UG SEDS Mechanical and Aerospace Engineering	5 year UG SEDS Mechanical and Aerospace Engineering (pending graduation)		
789	MAE 455	Flight Performance and Mechanics	3	6	MAE 340 Aerodynamics (6576) (D and above) OR MAE 305 Fluid Mechanics II (6173) (D and above)			4 year UG SEDS Mechanical and Aerospace Engineering	5 year UG SEDS Mechanical and Aerospace Engineering (pending graduation)		
790	MAE 462	Multiphase Systems	3	6	MAE 300 Fluid Mechanics I (5926) (D and above) AND MAE 305 Fluid Mechanics II (6173) (D and above)			4 year UG SEDS Mechanical and Aerospace Engineering	5 year UG SEDS Mechanical and Aerospace Engineering (pending graduation)		

791	MAE 466	Application of Optimization in Mechanical and Aerospace Engineering.	3	6	ENG 202 Numerical Methods in Engineering (5506) (D and above) AND MATH 162 Calculus II (170) (D and above)			4 year UG SEDS Mechanical and Aerospace Engineering	5 year UG SEDS Mechanical and Aerospace Engineering (pending graduation)		
792	MAE 467	Heating, Ventilating and Air Conditioning	3	6	MAE 301 Engineering Thermodynamics (5927) (D and above)			4 year UG SEDS Mechanical and Aerospace Engineering	5 year UG SEDS Mechanical and Aerospace Engineering (pending graduation)		
793	MAE 468	Introduction to Aerospace Propulsion.	3	6	MAE 300 Fluid Mechanics I (5926) (D and above) AND MAE 301 Engineering Thermodynamics (5927) (D and above)			4 year UG SEDS Mechanical and Aerospace Engineering	5 year UG SEDS Mechanical and Aerospace Engineering (pending graduation)		
794	MMAE 600	Research Seminar	3	6				1 year Gr SEDS Mechanical and Aerospace Engineering			
795	MMAE 601	Master Thesis I	12	24	MMAE 600 Research Seminar (4703) (P)			2 year Gr SEDS Mechanical and Aerospace Engineering			
796	MMAE 603	Modern Control Engineering	3	6				1 year Gr SEDS Mechanical and Aerospace Engineering			
797	MMAE 605	Advanced Manufacturing Processes and Strategies	3	6				2 year Gr SEDS Mechanical and Aerospace Engineering	1 year Gr SEDS Mechanical and Aerospace Engineering		
798	MMAE 621	Advanced Fluid Mechanics with Applications	3	6				2 year Gr SEDS Mechanical and Aerospace Engineering	1 year Gr SEDS Mechanical and Aerospace Engineering		
799	MMAE 705	Design Optimization	3	6				2 year Gr SEDS Mechanical and Aerospace Engineering	1 year Gr SEDS Mechanical and Aerospace Engineering		
800	MMAE 717	Advanced Materials and Composites	3	6				2 year Gr SEDS Mechanical and Aerospace Engineering	1 year Gr SEDS Mechanical and Aerospace Engineering		

801	SEDS 505	Teaching and Laboratory Practicum I	3	6				2 year Gr SEDS Biomedical Engineering, 2 year Gr SEDS Chemical and Materials Engineering, 2 year Gr SEDS Civil and Environmental Engineering, Chemical and Materials Engineering, Electrical and Computer Engineering, Mechanical and Aerospace Engineering			
Mining Engineering											
802	MINE 301	Mine Surveying and Geographic Information Systems	3	6	SMG 100 Introduction to Natural Resources Extraction (4773) (C- and above)			3 year UG SMG Mining Engineering	4 year UG SMG Geology, 4 year UG SMG Petroleum Engineering		
803	MINE 302	Geomechanics	3	6				3 year UG SMG Mining Engineering			
804	MINE 401	Mining Geotechnical Engineering	3	6	MINE 302 Geomechanics (5878) (C- and above)			4 year UG SMG Mining Engineering			
805	MINE 402	Mine Planning	3	6				4 year UG SMG Mining Engineering	3 year UG SMG Mining Engineering		
806	MINE 403	Coal Mining	3	6				4 year UG SMG Mining Engineering			
807	MINE 405	Mine Ventilation	3	6				4 year UG SMG Mining Engineering	3 year UG SMG Mining Engineering		
808	MINE 407	Mining and Environment	3	6				4 year UG SMG Mining Engineering	4 year UG SMG Geology, 4 year UG SMG Petroleum Engineering		
809	MINE 489	Mine Design Project I	3	6				4 year UG SMG Mining Engineering			
810	MINE 501	Foundations of Mining	3	6				1 year Gr SMG Mining Engineering			
811	MINE 502	Geology for Mining Engineers	3	6				1 year Gr SMG Mining Engineering			
812	MINE 503	Applied Geostatistics	3	6				1 year Gr SMG Mining Engineering			
813	MINE 504	Mine Geomechanics	3	6				1 year Gr SMG Mining Engineering			

814	MINE 511	Mineral Processing Plant Design	3	6				1 year Gr SMG Mining Engineering			
815	MINE 602	Mine Maintenance and Services	3	6	MINE 502 Geology for Mining Engineers (3691) (C- and above)			2 year Gr SMG Mining Engineering			
816	MINE 690	Thesis I	6	12				2 year Gr SMG Mining Engineering			
817	MINE 701	Advanced Mine Geomechanics	4	8				1 year PhD SMG Mining Engineering			
818	MINE 890	Doctoral Thesis	90	180				4 year PhD SMG Mining Engineering, 5 year PhD SMG Mining Engineering (pending graduation)			
819	MINE 890-0	Thesis Research	0	0				1 year PhD SMG Mining Engineering, 2 year PhD SMG Mining Engineering, 3 year PhD SMG Mining Engineering, 4 year PhD SMG Mining Engineering, 5 year PhD SMG Mining Engineering (pending graduation)			
Petroleum Engineering											
820	PETE 201	Fluid Mechanics and Thermodynamics	3	6	MATH 161 Calculus I (118) (C- and above)			2 year UG SMG Mining Engineering, 2 year UG SMG Petroleum Engineering, 4 year UG SMG Petroleum Engineering, 5 year UG SMG Petroleum Engineering (pending graduation)			
821	PETE 301	Numerical Methods for Petroleum Engineers	3	6	ENG 200 Engineering Mathematics III (Differential Equations and Linear Algebra) (5009) (C- and above) OR ENG 101 Programming for Engineers (4517) (C- and above)			3 year UG SMG Petroleum Engineering, 4 year UG SMG Petroleum Engineering, 5 year UG SMG Petroleum Engineering (pending graduation)			
822	PETE 302	Reservoir Engineering I with Laboratory works	4	8	PETE 204 Reservoir Rock and Fluid Properties with Lab (5487) (C- and above)			3 year UG SMG Petroleum Engineering, 4 year UG SMG Petroleum Engineering, 5 year UG SMG Petroleum Engineering (pending graduation)			

823	PETE 303	Well Logging and Formation Evaluation	3	6	GEOL 101 Fundamentals of Geology (4774) (C- and above)			3 year UG SMG Petroleum Engineering, 4 year UG SMG Petroleum Engineering, 5 year UG SMG Petroleum Engineering (pending graduation)			
824	PETE 304	Well Completion and Stimulation	3	6	PETE 203 Drilling Engineering with Laboratories (5486) (C- and above)			3 year UG SMG Petroleum Engineering, 4 year UG SMG Petroleum Engineering, 5 year UG SMG Petroleum Engineering (pending graduation)			
825	PETE 400	Capstone Design Project I	3	6	PETE 302 Reservoir Engineering I with Laboratory works (5955) (C- and above) AND PETE 203 Drilling Engineering with Laboratories (5486) (C- and above)			4 year UG SMG Petroleum Engineering, 5 year UG SMG Petroleum Engineering (pending graduation)			
826	PETE 405	Enhanced Oil Recovery	3	6	PETE 204 Reservoir Rock and Fluid Properties with Lab (5487) (C- and above)			4 year UG SMG Petroleum Engineering			
827	PETE 409	Surface Facilities	3	6	PETE 307 Production Engineering (6146) (C- and above) AND PETE 203 Drilling Engineering with Laboratories (5486) (C- and above)			4 year UG SMG Geology, 4 year UG SMG Mining Engineering, 4 year UG SMG Petroleum Engineering, 5 year UG SMG Petroleum Engineering (pending graduation)			
828	PETE 501	Foundations of Petroleum Engineering	3	6				1 year Gr SMG Petroleum Engineering			
829	PETE 502	Petroleum Geology	3	6				1 year Gr SMG Petroleum Engineering			
830	PETE 503	Fluid Flow Through Porous Media	3	6				1 year Gr SMG Petroleum Engineering			
831	PETE 504	Advanced Formation Evaluation	3	6				1 year Gr SMG Petroleum Engineering			
832	PETE 505	Advanced Drilling Engineering	3	6				1 year Gr SMG Petroleum Engineering			
833	PETE 509	Advanced Well Testing and Evaluation	3	6				2 year Gr SMG Petroleum Engineering			
834	PETE 600	Thesis I	6	12				2 year Gr SMG Petroleum Engineering			
835	PETE 601	Petroleum Data Analytics	3	6				2 year Gr SMG Petroleum Engineering			

836	PETE 602	Research Seminar	3	6				2 year Gr SMG Petroleum Engineering			
837	PETE 802	Fluid Flow Through Porous Media	4	8				1 year PhD SMG Petroleum Engineering			
838	PETE 805	Special Topics in Petroleum Engineering: Data Analytics	4	8				1 year PhD SMG Petroleum Engineering			
839	PETE 890	Doctoral Thesis	90	180				4 year PhD SMG Petroleum Engineering, 5 year PhD SMG Petroleum Engineering (pending graduation)			
840	PETE 890-0	Thesis Research	0	0				1 year PhD SMG Petroleum Engineering, 2 year PhD SMG Petroleum Engineering, 3 year PhD SMG Petroleum Engineering, 4 year PhD SMG Petroleum Engineering, 5 year PhD SMG Petroleum Engineering (pending graduation)			
SMG											
841	SMG 100	Introduction to Natural Resources Extraction	3	6				1 year UG SMG, 2 year UG SMG, 3 year UG SMG	4 year UG SEDS, 4 year UG SSH		
842	SMG 210	Strength of Materials	3	6	SMG 100 Introduction to Natural Resources Extraction (4773) (C- and above) AND MATH 162 Calculus II (170) (C- and above) AND PHYS 161 Physics I for Scientists and Engineers with Laboratory (116) (C- and above)			2 year UG SMG, 3 year UG SMG			
843	SMG 520	Research Methods	3	6				2 year Gr SMG Mining Engineering			

844	SMG 710	Advanced Statistics	3	6				1 year PhD SMG Mining Engineering, 1 year PhD SMG Petroleum Engineering	1 year PhD SEDS Chemical Engineering, 1 year PhD SEDS Civil Engineering, 1 year PhD SEDS Computer Science, 1 year PhD SEDS Electrical Engineering, 1 year PhD SEDS Mechanical Engineering, 1 year PhD SEDS Robotics Engineering, 1 year PhD SEDS Science, Engineering and Technology		
School of Engineering											
845	DENG 700	Thesis Research	89	178							
846	DENG 700-0	Thesis Research	0	0				Science, Engineering and Technology			

847	DENG 782	Research Methods and Ethics	3	6				1 year PhD SEDS Chemical Engineering, 1 year PhD SEDS Civil Engineering, 1 year PhD SEDS Computer Science, 1 year PhD SEDS Electrical Engineering, 1 year PhD SEDS Mechanical Engineering, 1 year PhD SEDS Robotics Engineering, 1 year PhD SEDS Science, Engineering and Technology	2 year PhD SEDS Chemical Engineering, 2 year PhD SEDS Civil Engineering, 2 year PhD SEDS Computer Science, 2 year PhD SEDS Electrical Engineering, 2 year PhD SEDS Mechanical Engineering, 2 year PhD SEDS Robotics Engineering, 2 year PhD SEDS Science, Engineering and Technology	3 year PhD SEDS Chemical Engineering, 3 year PhD SEDS Civil Engineering, 3 year PhD SEDS Computer Science, 3 year PhD SEDS Electrical Engineering, 3 year PhD SEDS Mechanical Engineering, 3 year PhD SEDS Robotics Engineering, 3 year PhD SEDS Science, Engineering and Technology, 4 year PhD SEDS Chemical Engineering, 4 year PhD SEDS Civil Engineering, 4 year PhD SEDS Computer Science, 4 year PhD SEDS Electrical Engineering, 4 year PhD SEDS Mechanical Engineering, 4 year PhD SEDS Robotics Engineering, 4 year PhD SEDS Science, Engineering and Technology, 5 year PhD SEDS Science, Engineering and Technology (pending graduation), SMG	
848	DENG 794	Dissertation Research	12	24	DENG 785 PhD Proposal Oral Defence (2604) (P)			Science, Engineering and Technology			

849	DENG 795	Research at Host University	6	12	DENG 785 PhD Proposal Oral Defence (2604) (P)			Instructor's Permission Required. Registration through Add Course form only!			
850	DENG 796	Thesis Completion	0	0				Science, Engineering and Technology			
851	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			
SCAI											
Computer Science											
852	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)	Business Administration (UG), SSH, SoM			

853	CSCI 115	Programming Fundamentals	4	8			CSCI 101 Introduction to Computational Sciences (147) (D and above) OR CSCI 111 Web Programming and Problem Solving (110) (D and above) OR CSCI 151 Programming for Scientists and Engineers (192) (D and above) OR ENG 101 Programming for Engineers (4517) (D and above)	Biological Sciences, Chemistry, Mathematics, SoM	SSH		
854	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)	(ND-CC) Robotics Engineering, Computer Science, Robotics Engineering, Robotics and Mechatronics	1 year UG SSH Physics, Undeclared SEDS	SEDS, SMG, SSH	
855	CSCI 231	Computer Systems and Organization	3	6	CSCI 151 Programming for Scientists and Engineers (192) (C- and above)			Computer Science			
856	CSCI 235	Programming Languages	4	8	CSCI 152 Performance and Data Structures (489) (C- and above)			Computer Science			
857	CSCI 281	Human-Computer Interaction	3	6	CSCI 152 Performance and Data Structures (489) (C- and above)			Computer Science			
858	CSCI 299	Internship I	3	6				Instructor's Permission Required. Registration through Add Course form only!			

859	CSCI 341	Database Systems	3	6	CSCI 152 Performance and Data Structures (489) (C- and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science (pending graduation)			
860	CSCI 344	Data Mining and Decision Support	3	6	CSCI 341 Database Systems (195) (C- and above) AND MATH 273 Linear Algebra with Applications (84) (C- and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science (pending graduation)			
861	CSCI 355	Compiler Construction	3	6	CSCI 235 Programming Languages (638) (C and above) AND CSCI 272 Formal Languages (4689) (C and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science (pending graduation)			
862	CSCI 361	Software Engineering	3	6	CSCI 152 Performance and Data Structures (489) (C- and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science (pending graduation)			
863	CSCI 364	Software Architecture and Design	3	6	CSCI 361 Software Engineering (640) (C- and above)			Computer Science			
864	CSCI 390	Artificial Intelligence	3	6	CSCI 152 Performance and Data Structures (489) (C- and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science (pending graduation)			
865	CSCI 393	Introduction to Natural Language Processing	3	6	CSCI 390 Artificial Intelligence (643) (C- and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science (pending graduation)			
866	CSCI 399	Internship II	3	6				Instructor's Permission Required. Registration through Add Course form only!			
867	CSCI 408	Senior Project I	3	6				3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science (pending graduation)			

868	CSCI 423	Introduction to Parallel Systems and GPU Programming	3	6	CSCI 332 Operating Systems (490) (C- and above)		PHYS 421 Parallel Computing (8532) (D and above)	3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science (pending graduation)			
869	CSCI 434	Information Security	3	6		CSCI 333 Computer Networks (1145) (D and above)		3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science (pending graduation)			
870	CSCI 437	Internet of Things: Technologies and Applications	3	6		CSCI 333 Computer Networks (1145) (D and above)		3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science (pending graduation)			
871	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 (pending graduation)	
872	CSCI 471	Complexity and Computability	3	6	MATH 251 Discrete Mathematics (85) (C- and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science (pending graduation)			
873	CSCI 494	Deep Learning	3	6	CSCI 390 Artificial Intelligence (643) (C and above) AND MATH 273 Linear Algebra with Applications (84) (C and above)			3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS Computer Science (pending graduation)			

874	CSCI 501	Software Principles and Practice	3	6				Computer Science, Robotics	Biomedical Engineering, Chemical and Materials Engineering, Civil and Environmental Engineering, Data Science, Electrical and Computer Engineering, Engineering Management, Mechanical and Aerospace Engineering		
875	CSCI 523	Parallel Systems and GPU Programming	3	6				Computer Science, Robotics	Data Science		
876	CSCI 535	Wireless Communication and Networks	3	6				Computer Science, Data Science			
877	CSCI 537	Software Defined Networking	3	6				Computer Science, Data Science			
878	CSCI 538	Internet of Things and Machine Learning on the Edge	3	6				Computer Science, Data Science			
879	CSCI 575	Formal Methods and Applications	3	6				Computer Science, Data Science			
880	CSCI 585	Computer Vision	3	6				Computer Science, Data Science			
881	CSCI 592	Intelligent Systems	3	6				Computer Science, Data Science			
882	CSCI 594	Deep Learning	3	6				Computer Science, Data Science			
883	CSCI 693	Thesis Proposal	3	6	SEDS 591 Research Methods (3184) (C- and above)			2 year Gr SEDS Computer Science			
884	CSCI 700-0	Thesis Research	0	0				Computer Science			
885	CSCI 701	Advanced Software Principles and Practice	4	8				Computer Science	Robotics Engineering	Chemical Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, Science, Engineering and Technology	

886	CSCI 723	Advanced Parallel Systems and GPU Programming	4	8				Computer Science	Robotics Engineering	SEDS	
887	CSCI 735	Advanced Wireless Communication and Networks	4	8				Computer Science	Robotics Engineering	Chemical Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, Science, Engineering and Technology	
888	CSCI 737	Advanced Software Defined Networking	4	8				Computer Science	Robotics Engineering		
889	CSCI 775	Advanced Formal Methods and Applications	4	8				Computer Science	Robotics Engineering	Chemical Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, Science, Engineering and Technology	
890	CSCI 785	Advanced Computer Vision	4	8				Computer Science	Robotics Engineering	Chemical Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, Science, Engineering and Technology	
891	CSCI 792	Advanced Intelligent Systems	4	8				Computer Science	Robotics Engineering		
892	CSCI 794	Advanced Deep Learning	4	8				Computer Science	Robotics Engineering	Chemical Engineering, Civil Engineering, Electrical Engineering, Mechanical Engineering, Science, Engineering and Technology	

893	DS 501	Fundamentals of Data Science	3	6				Applied Artificial Intelligence and Data Science, Data Science			
894	DS 502	Probability and Statistics for Data Science	3	6				Applied Artificial Intelligence and Data Science, Data Science			
895	DS 507	Database Management Systems	3	6				Applied Artificial Intelligence and Data Science, Data Science			
896	DS 551	Process and Project Management	3	6				Data Science	Computer Science		
897	DS 552	Data-Driven Innovation	3	6				2 year Gr SEDS Data Science			
898	DS 693	Thesis Proposal	3	6	SEDS 591 Research Methods (3184) (C- and above)			2 year Gr SEDS Data Science			
899	SEDS 503	Laboratory Practicum	3	6	SEDS 502 Teaching Practicum (2824) (P)			Computer Science, Robotics	Data Science		
900	SEDS 591	Research Methods	3	6				Applied Artificial Intelligence and Data Science, Data Science	Computer Science, Robotics		
Mathematics											
901	MATH 161	Calculus I	4	8				Biological Sciences, Business Administration (UG), Chemistry, Mathematics, Physics, SEDS, SMG	SSH, SoM		
902	MATH 162	Calculus II	4	8	MATH 161 Calculus I (118) (C and above)			5 year UG SSH (pending graduation), Chemistry, Mathematics, Physics, SEDS, SMG	Undeclared SSH	Business Administration (UG), SSH, SoM	
903	MATH 251	Discrete Mathematics	3	6	MATH 161 Calculus I (118) (C and above)			Computer Science, Mathematics	Business Administration (UG), SEDS, SMG, SSH, SoM		
904	MATH 263	Calculus III	4	8	MATH 162 Calculus II (170) (C and above)			Mathematics, Physics	Business Administration (UG), SEDS, SMG, SSH, SoM		
905	MATH 273	Linear Algebra with Applications	4	8	MATH 161 Calculus I (118) (C and above)	MATH 162 Calculus II (170) (C and above)		Computer Science, Mathematics, Physics, Robotics Engineering, Robotics and Mechatronics	Business Administration (UG), SEDS, SMG, SSH, SoM		
906	MATH 274	Introduction to Differential Equations	3	6	MATH 162 Calculus II (170) (C and above)			Mathematics, Physics	Chemistry, Robotics Engineering, Robotics and Mechatronics	Business Administration (UG), SEDS, SMG, SSH, SoM	

907	MATH 301	Introduction to Number Theory	3	6	MATH 273 Linear Algebra with Applications (84) (C and above) AND MATH 251 Discrete Mathematics (85) (C and above)			Mathematics		Business Administration (UG), SEDS, SMG, SSH, SoM	
908	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		Business Administration (UG), SEDS, SMG, SSH, SoM	
909	MATH 310	Applied Statistical Methods	3	6	MATH 161 Calculus I (118) (C and above)		MATH 321 Probability (482) (C and above)	Biological Sciences, Petroleum Engineering	Mining Engineering	Business Administration (UG), SEDS, SMG, SSH, SoM	
910	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)	Mathematics, Robotics Engineering, Robotics and Mechatronics	Computer Science	Business Administration (UG), SEDS, SMG, SSH, SoM	
911	MATH 322	Mathematical Statistics	3	6	MATH 321 Probability (482) (C and above) OR ECON 211 Economic Statistics (2280) (C and above)			Mathematics		Business Administration (UG), SEDS, SMG, SSH, SoM	
912	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		Business Administration (UG), SEDS, SMG, SSH, SoM	
913	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		Business Administration (UG), SEDS, SMG, SSH, SoM	

914	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		Business Administration (UG), SEDS, SMG, SSH, SoM	
915	MATH 371	Introduction to Mathematical Biology	3	6	MATH 273 Linear Algebra with Applications (84) (C and above) AND MATH 274 Introduction to Differential Equations (484) (C and above)			Mathematics		Business Administration (UG), SEDS, SMG, SSH, SoM	
916	MATH 417	Cryptography	3	6	MATH 273 Linear Algebra with Applications (84) (C and above) AND (MATH 251 Discrete Mathematics (85) (C and above) OR MATH 301 Introduction to Number Theory (613) (C and above) OR MATH 355 Introduction to Proofs (86) (C and above))			Mathematics		Business Administration (UG), SEDS, SMG, SSH, SoM	
917	MATH 424	Mathematical Finance	3	6	MATH 321 Probability (482) (C and above) OR ECON 211 Economic Statistics (2280) (C and above)			Mathematics		Business Administration (UG), SEDS, SMG, SSH, SoM	
918	MATH 425	Stochastic Processes	3	6	MATH 321 Probability (482) (C and above) OR ECON 211 Economic Statistics (2280) (C and above)			Mathematics		Business Administration (UG), SEDS, SMG, SSH, SoM	
919	MATH 446	Time Series Analysis	3	6	MATH 322 Mathematical Statistics (1165) (C and above)			Mathematics		Business Administration (UG), SEDS, SMG, SSH, SoM	
920	MATH 449	Statistical Programming	3	6	MATH 322 Mathematical Statistics (1165) (C and above)			Mathematics		Business Administration (UG), SEDS, SMG, SSH, SoM	

921	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		Business Administration (UG), SEDS, SMG, SSH, SoM	
922	MATH 477	Applied Finite Element Methods	3	6	MATH 351 Numerical Methods with Applications (1166) (C and above)			Mathematics		Business Administration (UG), SEDS, SMG, SSH, SoM	
923	MATH 480	Complex Analysis	3	6	MATH 263 Calculus III (81) (C and above)			Mathematics		Business Administration (UG), SEDS, SMG, SSH, SoM	
924	MATH 481	Partial Differential Equations	3	6	MATH 274 Introduction to Differential Equations (484) (C and above)	MATH 480 Complex Analysis (618) (C and above)		Mathematics		Business Administration (UG), SEDS, SMG, SSH, SoM	
925	MATH 490	Special Topics in Mathematics I	3	6				Instructor's Permission Required. Registration through Add Course form only!			
926	MATH 491	Special Topics in Mathematics II	3	6				Instructor's Permission Required. Registration through Add Course form only!			
927	MATH 492	Special Topics in Mathematics III	3	6				Instructor's Permission Required. Registration through Add Course form only!			
928	MATH 497	Directed Study in Mathematics I	3	6				Instructor's Permission Required. Registration through Add Course form only!			
929	MATH 510	Measure Theory and Applications	3	6				Applied Mathematics	SEDS, SMG, SSH, SoM		
930	MATH 514	Operations Research	3	6				Applied Mathematics	SEDS, SMG, SSH, SoM		
931	MATH 519	Scientific Computing	3	6				Applied Mathematics	SEDS, SMG, SSH, SoM		
932	MATH 540	Statistical Learning	3	6				Applied Mathematics	SEDS, SMG, SSH, SoM		
933	MATH 555	Stochastic Analysis	3	6	MATH 510 Measure Theory and Applications (5685) (C and above)			Applied Mathematics	SEDS, SMG, SSH, SoM		

934	MATH 576	Numerical Methods for Partial Differential Equations	3	6				Applied Mathematics	SEDS, SMG, SSH, SoM		
935	MATH 582	Mathematical Biology	3	6				Applied Mathematics	SEDS, SMG, SSH, SoM		
936	MATH 592	Research Seminar	3	6				Applied Mathematics	SEDS, SMG, SSH, SoM		
937	MATH 601	Analytic Number Theory	3	6				Applied Mathematics	SEDS, SMG, SSH, SoM		
938	MATH 700	Doctoral Thesis	90	180							
939	MATH 700-0	Thesis Research	0	0				Mathematics	SEDS, SSH		
940	MATH 701	Real Analysis	4	8				Mathematics	SEDS, SSH		
941	MATH 711	Abstract Algebra	4	8				Mathematics	SEDS, SSH		
942	MATH 740	Advanced Statistical Learning	4	8				Mathematics	SEDS, SMG, SSH		
943	MATH 771	Operations Research	4	8				Mathematics			
944	MATH 776	Advanced numerical methods for partial differential equations	4	8				Mathematics	SEDS, SMG, SSH		
945	MATH 780	Research Methods and Ethics	3	6				Instructor's Permission Required. Registration through Add Course form only!			
946	MATH 791	Topics in Mathematics	4	8				Instructor's Permission Required. Registration through Add Course form only!			
Robotics and Mechatronics											
947	ROBT 201	Mechanics: Statics and Dynamics	3	6	MATH 162 Calculus II (170) (C- and above) AND (PHYS 161 Physics I for Scientists and Engineers with Laboratory (116) (C- and above) OR PHYS 171 Physics I for Physics Majors with Laboratory (1401) (C- and above))			(ND-CC) Robotics Engineering, Robotics Engineering, Robotics and Mechatronics	SMG		

948	ROBT 203	Electrical and Electronic Circuits I with Lab	4	8	MATH 162 Calculus II (170) (C- and above) AND (PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above) OR PHYS 172 Physics II for Physics Majors with Laboratory (1402) (C- and above) OR (PHYS 141 Physics I for non-majors with Lab (1437) (C- and above) AND PHYS 142 Physics II for non-majors with Lab (1438) (C- and above)))			(ND-CC) Robotics Engineering, Robotics Engineering, Robotics and Mechatronics			
949	ROBT 205	Signals and Sensing with Lab	4	8	MATH 162 Calculus II (170) (C- and above) AND (PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above) OR PHYS 172 Physics II for Physics Majors with Laboratory (1402) (C- and above))			(ND-CC) Robotics Engineering, Robotics Engineering, Robotics and Mechatronics	Computer Science		
950	ROBT 301	Mechanical Design with CAD and Machining Laboratory	4	8	ROBT 201 Mechanics: Statics and Dynamics (475) (C- and above)			Robotics Engineering, Robotics and Mechatronics	Computer Science		
951	ROBT 303	Linear Control Theory with Lab	4	8	ROBT 202 System Dynamics and Modeling (68) (C- and above)			Robotics Engineering, Robotics and Mechatronics			
952	ROBT 310	Image Processing	3	6	MATH 162 Calculus II (170) (C- and above) AND MATH 273 Linear Algebra with Applications (84) (C- and above)			Robotics Engineering, Robotics and Mechatronics	Computer Science, Mathematics		
953	ROBT 403	Robotics II: Control, Modeling and Learning with Laboratory	4	8	ROBT 303 Linear Control Theory with Lab (623) (C- and above) AND ROBT 312 Robotics I: Kinematics and Dynamics (5263) (C- and above)			Robotics Engineering, Robotics and Mechatronics			

954	ROBT 407	Machine Learning with Applications	3	6	MATH 273 Linear Algebra with Applications (84) (C- and above) AND MATH 321 Probability (482) (C- and above) AND CSCI 152 Performance and Data Structures (489) (C- and above)			Robotics Engineering, Robotics and Mechatronics	Computer Science, Mathematics		
955	ROBT 491	Capstone Project I	3	6	ROBT 391 Research methods (7418) (C- and above)			You are not in the current priority. Please check the priority requirements.			
956	ROBT 501	Robot Manipulation and Mobility	3	6				Robotics	Biomedical Engineering, Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Engineering Management, Mechanical and Aerospace Engineering		
957	ROBT 503	Dynamic Systems and Control	3	6				Robotics	Biomedical Engineering, Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Engineering Management, Mechanical and Aerospace Engineering		

958	ROBT 611	Industrial Robotics	3	6	ROBT 501 Advanced Robot Kinematics (2263) (C- and above)			Robotics	Biomedical Engineering, Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Engineering Management, Mechanical and Aerospace Engineering		
959	ROBT 613	Brain-Machine Interfaces	3	6				Robotics	Biomedical Engineering, Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Engineering Management, Mechanical and Aerospace Engineering		

960	ROBT 615	Optimal Control and Planning	3	6	ROBT 503 System Dynamics and Control (2264) (C- and above)			Robotics	Biomedical Engineering, Chemical and Materials Engineering, Civil and Environmental Engineering, Computer Science, Data Science, Electrical and Computer Engineering, Engineering Management, Mechanical and Aerospace Engineering		
961	ROBT 691	Thesis Proposal	6	12				Robotics			
962	ROBT 700	Thesis Research	89	178				Robotics Engineering			
963	ROBT 700-0	Thesis Research	0	0				Robotics Engineering			
964	ROBT 701	Advanced Robot Manipulation and Mobility	4	8				Robotics Engineering	Science, Engineering and Technology		
965	ROBT 703	Advanced Optimal Control and Planning	4	8				Robotics Engineering	Science, Engineering and Technology		
966	ROBT 709	Advanced Robot Dynamics and Control	4	8				Robotics Engineering	Science, Engineering and Technology		