Course Requirements and Registration Priorities
Summer 2023

#	Abbr	Title	Cr(US)	Cr(ECTS)	PreRequisite	CoRequisite	AntiRequisite	1st priority registration	2nd priority registration	3rd priority registration	4th priority registration
GSB											
Economics											
1	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!			
2	ECON 580	Research and Thesis	0	0				Instructor's Permission Required. Registration through Add Course form only!			
GSB											
3	BUS 101	Core Course in Business	3	6				2 year UG SOM Medical Sciences, 2 year UG SOM Nursing, 3 year UG SOM, 4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SOM, 4 year UG SSH, 4 year UG SSH (pending graduation)	3 year UG SEDS, 3 year UG SMG, 3 year UG SSH	2 year UG SEDS, 2 year UG SMG, 2 year UG SSH	
4	GSBF 542	Global Finance Experience Residency (II)	3	6				For GSB programs only! Registration by School admin.			
5	MBA 14	Decision Models	2	4				For GSB programs only! Registration by School admin.			
6	MBA 20A	Internship	6	12				For GSB programs only! Registration by School admin.			
7	MBAE 20	Marketing Research	2	4				For GSB programs only! Registration by School admin.			
8	MBAE 6	International Finance	2	4				For GSB programs only! Registration by School admin.			

9	MHRM 09	Talent Management	2	4				For GSB programs only! Registration by School admin.			
10	MSF 04	Private Equity	2	4				For GSB programs only! Registration by School admin.			
11	MSF 05	Internship	6	12				For GSB programs only! Registration by School admin.			
12	MSF 06	Credit Risk Modeling	2	4				For GSB programs only! Registration by School admin.			
GSPP											
Master in Public Administration											
13	MPA 607	Fiscal Management and Budgeting	4	8				1 year GSPP Public Administration			
14	MPA 699	Master's Project with Overseas Component	0	0				1 year GSPP Public Administration			
15	MPE 600	Internship in Public Policy	4	8	(MPP 601 Microeconomics and Public Policy (1449) (C- and above) AND MPP 602 Macroeconomics and Public Policy (1023) (C- and above) AND MPP 611 Statistics for Public Policy (1450) (C- and above) AND MPP 621 Public Policy and Analysis (1451) (C- and above) AND MPP 641 Public Management and Leadership (1907) (C- and above) AND MPP 603 Data Analytics in Public Policy (6618) (C- and above)) OR (MPA 602 Public Administration in Theory and Practice (2077) (C- and above) AND MPA 603 Economic Applications for Public Managers (2074) (C- and above) AND MPA 605 Research Methods for Public Managers (2108) (C- and above) AND MPE 608 Strategic Management and Leadership (2491) (C- and above) AND MPA 610 Program Evaluation (6617) (C- and above))			1 year GSPP Public Administration, 1 year GSPP Public Policy			
Master in Public Policy											
16	MPP 699-0	Policy Analysis Exercise with Overseas Component	0	0	MPP 613 Policy Research Design and Methods (1301) (C- and above)			1 year GSPP Public Policy			
PhD in Public Policy											
17	DPP 600	Developing Dissertation Research	0	0				Public Policy			

GSE											
MA in Multilingual Education											
18	EDML 630	Language Policy and Education Reform Across Contexts	3	6				1 year GSE MA in Multil.Education			
19	EDML 680	Developing the Thesis Research Topic	0	0				1 year GSE MA in Multil.Education			
20	EDML 692	Thesis Research III	3	6				2 year GSE MA in Multil.Education			
MSc Educational Leadership HE											
21	EDHE 601	Thesis Seminar 1	0	0				1 year GSE Educ.Leadership			
22	EDHE 602	Thesis Seminar 2	0	0				1 year GSE Educ.Leadership			
23	EDUC 610	Management in Education	3	6				1 year GSE Educ.Leadership			
24	EDUC 729	Developing the Research Topic	0	0				1 year GSE PhD Education			
25	EDUC 730	Preparation for Proposal Defence	0	0				2 year GSE PhD Education			
26	EDUC 732	Preparation for Proposal Defence	12	24				4 year GSE PhD Education			
27	EDUC 750	Dissertation Research	9	18				4 year GSE PhD Education			
28	EDUC 752	Dissertation Research: Independent Study	0	0				3 year GSE PhD Education			
MSc Educational Leadership IE											
29	EDIE 601	Thesis Seminar 1	0	0				1 year GSE Educ.Leadership			
30	EDIE 602	Thesis Seminar 2	0	0				1 year GSE Educ.Leadership			
MSc Educational Leadership SE											
31	EDSE 601	Thesis Seminar 1	0	0				1 year GSE Educ.Leadership			
32	EDSE 602	Thesis Seminar 2	0	0				1 year GSE Educ.Leadership			
Other											
Other											
33	T - 1290121	Modern Japanese History	1.5	3							
34	T - AB 90A31	Introduction to Phonetics	1.5	3							
35	T - AB 91A11	Experimental Phonetics	1.5	3							

36	T - AE 53B61	Introduction to Contemporary Japanese Society	1.5	3							
37	T - BC 11511	Linguistic Anthropology	3	6							
38	T - BC 12061	Econometrics	2	4							
39	T - BC 12241	International Education	2	4							
40	T - BC 51191	Data Science for Social Sciences	2	4							
41	T - BE 22151	Democratization	2	4							
42	T - BE 22302	Financing for Development	2	4							
43	T - BE 22471	Globalization and Development	2	4							
SoM											
Biological Science											
44	BIOL 392	Directed Study in Biology	3	6				Instructor's Permission Required. Registration through Add Course form only!			
45	BIOL 399	Biology Internship - 2B	3	6				Instructor's Permission Required. Registration through Add Course form only!			
46	BIOL 490	Honors Thesis Research	0	0	BIOL 355 Critical Research Reasoning (1000) (B and above)			Instructor's Permission Required. Registration through Add Course form only!			
47	BIOL 599	Master’s Thesis Research	0	0				Biological Sciences			
48	BIOL 800-0	Thesis Research	0	0				1 year PhD SSH Life Sciences	2 year PhD SSH Life Sciences	3 year PhD SSH Life Sciences, 4 year PhD SSH Life Sciences	
MSMR											
49	MSMR 513	Internship in Sports Medicine and Rehabilitation	1.5	3				1 year Gr SOM Sports Medicine and Rehabilitation			
PHD											
50	PHDBS 701	Thesis Research	90	180							
51	PHDBS 701-0	Thesis Research	0	0				Biomedical Sciences, Global Health			

52	PHDGH 701-0	Thesis Research	0	0				Biomedical Sciences, Global Health			
SSH											
Academic Success Centre, Communication and Composition											
53	WCS 150	Rhetoric and Composition	3	6				SEDS, SMG, SSH, SoM			
Area Studies											
54	EAS 505	Research and Fieldwork Practicum	4	8				Eurasian Studies			
55	EAS 800	Doctoral Thesis in Eurasian Studies	70	140							
56	EAS 800-0	Dissertation Research in Eurasian Studies	0	0				Instructor's Permission Required. Registration through Add Course form only!			
Chemistry											
57	CHEM 101L	General Chemistry I lab	1	2		CHEM 101 General Chemistry I (113) (C and above)		Biological Sciences, Chemistry, SoM, Undeclared SSH	SEDS, SMG, SSH		
58	CHEM 102	General Chemistry II	3	6	CHEM 101 General Chemistry I (113) (C and above)			Biological Sciences, Chemistry, SoM, Undeclared SSH	SEDS, SMG, SSH		
59	CHEM 189c	Independent Study	3	6				4 year UG SSH Chemistry	3 year UG SSH Chemistry	2 year UG SSH Chemistry	
60	CHEM 211L	Organic Chemistry I Lab	1	2	CHEM 101L General Chemistry I lab (179) (C and above)	CHEM 211 Organic Chemistry I (154) (C and above)		Biological Sciences, Chemistry, SoM, Undeclared SSH	SEDS, SMG, SSH		
61	CHEM 212L	Organic Chemistry II Lab	1	2	CHEM 211L Organic Chemistry I Lab (156) (C and above)	CHEM 212 Organic Chemistry II (443) (C and above) OR CHEM 292 Organic Chemistry for Biologists II (1901) (C and above)		Biological Sciences, Chemistry, SoM, Undeclared SSH	SEDS, SMG, SSH		

62	CHEM 560	Directed research in chemistry	0	0					Applied Mathematics, Biological Sciences, Chemistry, Economics, Eurasian Studies, Physics, Political Science and International Relations		
63	CHEM 798-0	Thesis Research	0	0				Chemistry			
History, Philosophy and Religious Studies											
64	HST 100	History of Kazakhstan	3	6				SEDS, SMG, SSH, SoM			
65	HST 399	Independent Study	3	6				Instructor's Permission Required. Registration through Add Course form only!			
66	PHIL 210	Ethics	3	6				Instructor's Permission Required. Registration through Add Course form only!			
History, Philosophy and Religious Studies, History, Philosophy and Religious Studies											
67	HST 110/REL 110	Introduction to World Religions	3	6				SEDS, SMG, SSH, SoM			
Kazakh Language and Turkic Studies											
68	KAZ 150	Basic Kazakh	3	6	KLL "[A2] Basic"			SEDS, SMG, SSH, SoM			
69	KAZ 201	Academic Kazakh I	3	6	KAZ 150 Basic Kazakh (1215) (C- and above) OR KLL "[B1.2] Intermediate"			SEDS, SMG, SSH, SoM			
70	KAZ 202	Academic Kazakh II	3	6	KAZ 201 Academic Kazakh I (4561) (C- and above) OR KLL "[B2.2] Upper-Interm."			SEDS, SMG, SSH, SoM			
71	KAZ 311	Professional Academic Communication	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KAZ 303 Academic Speaking in Kazakh (702) (C- and above) OR KAZ 304 Academic Writing in Kazakh (703) (C- and above) OR KLL "[C1.1] Advanced"			SEDS, SMG, SSH, SoM			
72	KAZ 349	Kazakh Mythology	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			SEDS, SMG, SSH, SoM			
Languages, Literature and Linguistics											

73	WLL 399	Independent Study	3	6				Instructor's Permission Required. Registration through Add Course form only!			
74	WLL 400	Research Assistance in Linguistics and Literature	1	2				Instructor's Permission Required. Registration through Add Course form only!			
Physics											
75	PHYS 161	Physics I for Scientists and Engineers with Laboratory	4	8		MATH 161 Calculus I (118) (C and above)	PHYS 171 Physics I for Physics Majors with Laboratory (1401) (C- and above)	SEDS, SMG, SSH, SoM			
76	PHYS 162	Physics II for Scientists and Engineers with Laboratory	4	8	PHYS 161 Physics I for Scientists and Engineers with Laboratory (116) (C- and above) OR PHYS 151 Introductory Physics I with Lab (649) (C- and above)		PHYS 172 Physics II for Physics Majors with Laboratory (1402) (C- and above)	SEDS, SMG, SSH, SoM			
77	PHYS 299	Research project and internship	3	6				Instructor's Permission Required. Registration through Add Course form only!			
78	PHYS 399	Physics Research Project	3	6				Instructor's Permission Required. Registration through Add Course form only!			
79	PHYS 600	Thesis Research	0	0				Instructor's Permission Required. Registration through Add Course form only!			
80	PHYS 700-0	Thesis Research	0	0				Physics			
Political Science and International Relations											
81	PLS 327	Contemporary Political Theory	3	6	PLS 120 Introduction to Political Theory (512) (C- and above)		PHIL 131 Introduction to Contemporary Political Philosophy (4032) (C- and above)	5 year UG SSH Political Sciences and International Relations	4 year UG SSH Political Sciences and International Relations	Political Science and International Relations	
82	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!			

83	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)			Instructor's Permission Required. Registration through Add Course form only!			
84	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)			Instructor's Permission Required. Registration through Add Course form only!			
85	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!			
86	PLS 526	Hannah Arendt on Power, Violence, and Revolution	4	8			PLS 426 Hannah Arendt on Power, Violence, and Revolution (5398) (C- and above)	Instructor's Permission Required. Registration through Add Course form only!			
87	PLS 597	Research for Thesis	6	12				1 year Gr SSH Political Science and International Relations			
88	PLS 599	MA Thesis II	10	20							
SSH											
89	SSH 300	School of Sciences and Humanities Internship	3	6				Instructor's Permission Required. Registration through Add Course form only!			
90	SSH 301	School of Sciences and Humanities Internship: Second Experience	3	6				Instructor's Permission Required. Registration through Add Course form only!			
91	SSH 398	Independent Study	1	2				Instructor's Permission Required. Registration through Add Course form only!			
Sociology and Anthropology											

92	ANT 345	Archaeology Field School	3	6	ANT 110 Introduction to Sociocultural Anthropology (501) (C and above) OR ANT 120 Anthropology Theory (137) (C and above) OR ANT 120 Sociology Theory/Anthropology Theory (135) (C and above) OR ANT 140 World Prehistory (227) (C and above) OR ANT 160 Introduction to Biological Anthropology (161) (C and above) OR ANT 101 Being Human: An Introduction to Four Field Anthropology (2960) (C and above)			Instructor's Permission Required. Registration through Add Course form only!			
93	ANT 400	Research Assistance in Anthropology	1	2				Instructor's Permission Required. Registration through Add Course form only!			
94	ANT 404	Research Assistance in Anthropology	3	6				Instructor's Permission Required. Registration through Add Course form only!			
95	SOC 217	Sociology of the Family	3	6				Sociology	SEDS, SMG, SSH, SoM		
96	SOC 400	Research Assistance in Sociology	1	2				Instructor's Permission Required. Registration through Add Course form only!			
SoE											
Chemical and Materials Engineering											
97	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, 5 year UG SEDS Chemical and Materials Engineering			
98	DCHME 700-0	Thesis Research	0	0				Chemical Engineering			
Civil and Environmental Engineering											
99	CEE 200	Structural Mechanics I	3	6				4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering	5 year UG SEDS Mechanical Engineering, 5 year UG SEDS Mechanical and Aerospace Engineering		
100	DCEE 700-0	Thesis Research	0	0				Civil Engineering			
Electrical and Computer Engineering											

101	DELCE 700-0	Thesis Research	0	0				Electrical Engineering			
102	ELCE 201	Circuits Theory II	3	6	ELCE 200 Introduction to Electrical Circuits (4991) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering		
103	ELCE 301	Electronic Circuits	3	6	ELCE 201 Circuit Theory (5507) (C- and above)			Instructor's Permission Required. Registration through Add Course form only!			
104	ELCE 399	Internship	3	6				Instructor's Permission Required. Registration through Add Course form only!			
105	ELCE 457	Introduction to Computer Vision	3	6	ENG 101 Programming for Engineers (4517) (C- and above) AND ENG 200 Engineering Mathematics III (Differential Equations and Linear Algebra) (5009) (C- and above)			Instructor's Permission Required. Registration through Add Course form only!			
Geosciences											
106	GEOL 206	Field Geology 1	3	6	GEOL 202 Geologic Maps and Cross-Sections (5123) (C- and above)			2 year UG SMG Geology, 2 year UG SMG Petroleum Engineering			
107	GEOL 410	Carbonate Systems, Processes and Deposits	3	6	GEOL 204 Sedimentology and strartigraphy (5475) (C- and above)			3 year UG SMG Geology			
108	GEOL 610	Carbonate Systems, Processes and Deposits	3	6	PETE 502 Petroleum Geology (4478) (C- and above)			1 year Gr SMG			
Mechanical and Aerospace Engineering											
109	DMAE 700-0	Thesis Research	0	0				Mechanical Engineering			
110	ENG 300	Interdisciplinary Project	3	6				Instructor's Permission Required. Registration through Add Course form only!			
111	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!			
112	MAE 305	Fluid Mechanics II	3	6	MAE 300 Fluid Mechanics I (5926) (D and above) OR EME 275 Fluid Mechanics I (1988) (D and above)			Instructor's Permission Required. Registration through Add Course form only!			

113	MAE 306	Computer Aided Engineering	3	6	ENG 202 Numerical Methods in Engineering (5506) (D and above) AND MAE 201 Computer Aided Design (5011) (D and above)			Instructor's Permission Required. Registration through Add Course form only!			
Mining Engineering											
114	MINE 890	Doctoral Thesis	90	180				4 year PhD SMG Mining Engineering			
115	MINE 890-0	Thesis Research	0	0				Mining Engineering			
Petroleum Engineering											
116	PETE 890	Doctoral Thesis	90	180				4 year PhD SMG Petroleum Engineering			
117	PETE 890-0	Thesis Research	0	0				Petroleum Engineering			
School of Engineering											
118	DENG 700	Thesis Research	89	178							
119	DENG 700-0	Thesis Research	0	0				Science, Engineering and Technology			
120	DENG 794	Dissertation Research	12	24	DENG 785 PhD Proposal Oral Defence (2604) (P)			Science, Engineering and Technology			
SCAI											
Computer Science											
121	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)	SSH, SoM			
122	CSCI 152	Performance and Data Structures	4	8	CSCI 151 Programming for Scientists and Engineers (192) (C- and above)			Computer Science, Robotics Engineering, Robotics and Mechatronics	SEDS	SMG, SSH	

123	CSCI 299	Internship I	3	6				Instructor's Permission Required. Registration through Add Course form only!			
124	CSCI 399	Internship II	3	6				Instructor's Permission Required. Registration through Add Course form only!			
125	CSCI 399F	Internship II - F	6	12				Instructor's Permission Required. Registration through Add Course form only!			
126	CSCI 700-0	Thesis Research	0	0				Computer Science			
127	SEDS 503	Laboratory Practicum	3	6	SEDS 502 Teaching Practicum (2824) (P)			Computer Science, Data Science, Robotics			
Mathematics											
128	MATH 161	Calculus I	4	8				5 year UG SSH, 5 year UG SSH (pending graduation), Biological Sciences, Chemistry, Mathematics, Medical Sciences, Physics, SEDS, SMG	Undeclared SSH	SSH, SoM	
129	MATH 162	Calculus II	4	8	MATH 161 Calculus I (118) (C and above)			5 year UG SSH, 5 year UG SSH (pending graduation), Mathematics, Physics	Chemistry, SEDS, SMG	SSH, SoM	
130	MATH 274	Introduction to Differential Equations	3	6	MATH 162 Calculus II (170) (C and above)			Chemistry, Mathematics, Physics, Robotics Engineering, Robotics and Mechatronics	SEDS, SMG, SSH, SoM		
131	MATH 497	Directed Study in Mathematics I	3	6				Instructor's Permission Required. Registration through Add Course form only!			
132	MATH 498	Directed Study in Mathematics II	3	6				Instructor's Permission Required. Registration through Add Course form only!			
133	MATH 599	Thesis Research Preparation	0	0				Instructor's Permission Required. Registration through Add Course form only!			
134	MATH 700-0	Thesis Research	0	0				Instructor's Permission Required. Registration through Add Course form only!			
Robotics and Mechatronics											
135	ROBT 399	Internship	3	6				Robotics Engineering, Robotics and Mechatronics			

136	ROBT 700-0	Thesis Research	0	0				Robotics Engineering			