

Course Requirements and Registration Priorities Summer 2021

#	Abbr	Title	Cr(US)	Cr(ECTS)	PreRequisite	CoRequisite	AntiRequisite	1st priority registration	2nd priority registration	3rd priority registration	4th priority registration
GSB											
GSB											
1	BUS 101	Core Course in Business	3	6				3 year UG SEDS, 3 year UG SMG, 3 year UG SSH	2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	SEDS, SMG, SSH, SoM	
2	GSBF 520	Empirical Asset Pricing	2	4				For GSB programs only! Registration by School admin.			
3	GSBF 541	Global Finance Experience Residency (I)	2	4				For GSB programs only! Registration by School admin.			
4	MBA 10	Foundations of Strategy	2	4				For GSB programs only! Registration by School admin.			
5	MBA 20A	Internship	6	12				For GSB programs only! Registration by School admin.			
6	MSF 05	Internship	6	12				For GSB programs only! Registration by School admin.			
GSPP											
Master in Public Administration											
7	MPA 607	Fiscal Management and Budgeting	4	8				1 year GSPP Public Administration			
8	MPA 699	Master's Project with Overseas Component	0	0				1 year GSPP Public Administration			
PhD in Public Policy											
9	DPP 600	Developing Dissertation Research	0	0				1 year GSPP PhD Public Policy, 2 year GSPP PhD Public Policy, 3 year GSPP PhD Public Policy			
10	DPP 689	PhD Qualifying Examinations	0	0				1 year GSPP PhD Public Policy			
GSE											
MA in Multilingual Education											
11	EDML 680	Developing the Thesis Research Topic	0	0				1 year GSE MA in Multil.Education			
12	EDML 692	Thesis Research III	3	6				2 year GSE MA in Multil.Education			
MSc Educational Leadership HE											
13	EDHE 641	Organisation and governance in higher education	3	6				1 year GSE Educ.Leadership HE only!			
14	EDHE 642	Globalisation and higher education	3	6				1 year GSE Educ.Leadership HE only!			

15	EDHE 646	Higher Education Management Reform in Kazakhstan	3	6				1 year GSE Educ.Leadership HE only!			
16	EDHE 650	Innovative Research Methods: Answering the Complicated, Contemporary Questions in Higher Education	3	6				1 year GSE Educ.Leadership HE only!			
17	EDHE 680	Developing the Thesis Research Topic	0	0				1 year GSE Educ.Leadership HE only!			
18	EDHE 690	Thesis Seminar I	3	6				1 year GSE Educ.Leadership HE only!			
19	EDUC 573	Academic Writing in Kazakh	3	6				Yr1 Ed.Leadership, Yr1 Mult.Educ, Yr1-2 PhD Education only!			
20	EDUC 729	Developing the Research Topic	0	0				1 year GSE PhD Education			
MSc Educational Leadership IE											
21	EDIE 624	Psychology of Learning (Children as Learners)	3	6				1 year GSE Educ.Leadership IE only!			
22	EDIE 650	Theories of Inclusive Education	3	6				1 year GSE Educ.Leadership IE only!			
23	EDIE 657	Leading Inclusive Education for Culturally and Linguistically Diverse Learners	3	6				1 year GSE Educ.Leadership IE only!			
24	EDIE 680	Developing the Thesis Research Topic	0	0				1 year GSE Educ.Leadership IE only!			
25	EDIE 690	Thesis Seminar I	3	6				1 year GSE Educ.Leadership IE only!			
MSc Educational Leadership SE											
26	EDSE 630	Professional Identity	3	6				1 year GSE Educ.Leadership SE only!			
27	EDSE 632	School Improvement and Effectiveness	3	6				1 year GSE Educ.Leadership SE only!			
28	EDSE 634	Assessment: Theories, policies, practices	3	6				1 year GSE Educ.Leadership SE only!			
29	EDSE 680	Developing the Thesis Research Topic	0	0				1 year GSE Educ.Leadership SE only!			
30	EDSE 690	Thesis Seminar I	3	6				1 year GSE Educ.Leadership SE only!			
Other											
Other											
31	T - MOD E05	IoT & Edge Computing	3	6							

32	T - MOD2 01	Usability Engineering	3	6						
33	T - MOD2 02	Software-intensive Solutions	3	6						
SoM										
MSMR										
34	MSMR 513	Internship in Sports Medicine and Rehabilitation	1.5	3				1 year Gr SOM Sports Medicine and Rehabilitation		
PHD										
35	PHDBS 701-0	Thesis Research	0	0				1 year PhD SOM BioMed Sciences, 2 year PhD SOM BioMed Sciences		
SMG										
Mining Engineering										
36	MINE 890-0	Thesis Research	0	0				Instructor's Permission Required. Registration through Add Course form only!		
Petroleum Engineering										
37	PETE 890	Thesis Research	0	0				Instructor's Permission Required. Registration through Add Course form only!		
School of Mining and Geosciences										
38	GEOL 206	Field Geology 1	3	6	GEOL 202 Geologic Maps and Cross-Sections (5123) (C- and above)			2 year UG SMG		
SSH										
Area Studies										
39	EAS 505	Research and Fieldwork Practicum	4	8				Instructor's Permission Required. Registration through Add Course form only!		
40	EAS 800-0	Dissertation Research in Eurasian Studies	0	0				Instructor's Permission Required. Registration through Add Course form only!		
Biological Science										

41	BIOL 120L	Modern Biology II Laboratory	1	2	BIOL 110 Modern Biology I (1070) (C and above) OR BIOL 110L Modern Biology I Laboratory (5448) (C and above)	BIOL 120 Modern Biology II (1195) (C and above)		5 year UG SEDS, 5 year UG SSH, Medical Sciences	Biological Sciences	Anthropology, Chemistry, Computer Science, Economics, History, Mathematics, Political Science and International Relations, Robotics and Mechatronics, Sociology, Undeclared SSH, World Languages, Literatures and Cultures
42	BIOL 301L	Molecular Cell Biology Laboratory	1	2	BIOL 120 Modern Biology II (1195) (C and above) OR BIOL 120L Modern Biology II Laboratory (5443) (C and above)	BIOL 301 Molecular Cell Biology (5809) (C and above)		5 year UG SEDS, 5 year UG SSH, Biological Sciences	Chemistry, Computer Science, Mathematics, Physics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM
43	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)		5 year UG SEDS, 5 year UG SSH, Biological Sciences	Chemistry, Computer Science, Mathematics, Physics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM
44	BIOL 333	Environmental Biology	3	6	BIOL 120 Modern Biology II (1195) (C and above)			5 year UG SEDS, 5 year UG SSH, Biological Sciences	Chemistry, Computer Science, Mathematics, Physics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM
45	BIOL 392	Directed Study in Biology	3	6				Instructor's Permission Required. Registration through Add Course form only!		
46	BIOL 599	Master's Thesis Research	0	0				Instructor's Permission Required. Registration through Add Course form only!		
47	BIOL 800-0	Thesis Research	0	0				Instructor's Permission Required. Registration through Add Course form only!		

Chemistry

48	CHEM 101L	General Chemistry I lab	1	2		CHEM 101 General Chemistry I (113) (C and above)		5 year UG SEDS, 5 year UG SSH, Biological Sciences, Chemistry, Medical Sciences	SEDS, SMG, SSH, SoM		
49	CHEM 102	General Chemistry II	3	6	CHEM 101 General Chemistry I (113) (C and above)			5 year UG SEDS, 5 year UG SSH, Biological Sciences, Chemistry, Medical Sciences, SMG	SEDS, SSH, SoM		
50	CHEM 189c	Independent Study	3	6				Instructor's Permission Required. Registration through Add Course form only!			
51	CHEM 212	Organic Chemistry II	3	6	CHEM 211 Organic Chemistry I (154) (C and above) OR CHEM 191 Chemistry I for Engineers (1908) (C and above)			5 year UG SEDS, 5 year UG SSH, Chemistry	Biological Sciences	SEDS, SMG, SSH, SoM	
52	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)		5 year UG SEDS, 5 year UG SSH, Chemistry	Biological Sciences	SEDS, SMG, SSH, SoM	
53	CHEM 560	Directed research in chemistry	0	0				Instructor's Permission Required. Registration through Add Course form only!			
Communication and Composition											
54	WCS 150	Rhetoric and Composition	3	6				1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH, 5 year UG SEDS, 5 year UG SSH	SEDS, SMG, SSH, SoM		
Economics											
55	ECON 102	Introduction to Macroeconomics	3	6				5 year UG SEDS, 5 year UG SSH, Undeclared SSH	1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH	SEDS, SMG, SSH, SoM	
56	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)			Instructor's Permission Required. Registration through Add Course form only!			

57	ECON 399	Independent Study in Economics	3	6				Instructor's Permission Required. Registration through Add Course form only!			
58	ECON 498	Advanced Special Topics in Economics	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above) AND ECON 202 Intermediate Macroeconomics (207) (C- and above)			Instructor's Permission Required. Registration through Add Course form only!			
59	ECON 580	Research and Thesis	0	0				Instructor's Permission Required. Registration through Add Course form only!			
History, Philosophy and Religious Studies											
60	HST 100	History of Kazakhstan	3	6				4 year UG SEDS, 4 year UG SMG, 4 year UG SSH, 5 year UG SEDS, 5 year UG SSH	1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH	SEDS, SMG, SSH, SoM	
61	HST 399	Independent Study	3	6				Instructor's Permission Required. Registration through Add Course form only!			
62	PHIL 210	Ethics	3	6				3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 5 year UG SEDS, 5 year UG SSH	2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH		
History, Philosophy and Religious Studies, History, Philosophy and Religious Studies											
63	REL 110/HST 110	Introduction to World Religions	3	6				5 year UG SEDS, 5 year UG SSH, SSH	SEDS, SMG, SoM		
Kazakh Language and Turkic Studies											
64	KAZ 150	Basic Kazakh	3	6	KLL "[A2] Basic"			5 year UG SEDS, 5 year UG SSH, SEDS, SMG, SSH, SoM			
65	KAZ 202	Academic Kazakh II	3	6	KAZ 201 Academic Kazakh I (4561) (C- and above) OR KLL "[B2.2] Upper-Interm."			5 year UG SEDS, 5 year UG SSH, SEDS, SMG, SSH, SoM			
66	KAZ 212	Academic Writing in Kazakh	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"		KAZ 211 Academic Speaking in Kazakh (702) (C- and above)	5 year UG SEDS, 5 year UG SSH, SEDS, SMG, SSH, SoM			
67	KFL 101	Elementary Kazakh as a Foreign Language I	4	8				Instructor's Permission Required. Registration through Add Course form only!			

68	KFL 102	Elementary Kazakh as a Foreign Language II	4	8	KFL 101 Elementary Kazakh as a Foreign Language I (4889) (C- and above)			Instructor's Permission Required. Registration through Add Course form only!			
69	KFL 201	Intermediate Kazakh as a Foreign Language I	4	8				Instructor's Permission Required. Registration through Add Course form only!			
70	KFL 202	Intermediate Kazakh as a Foreign Language II	4	8	KFL 201 Intermediate Kazakh as a Foreign Language I (4887) (C- and above)			Instructor's Permission Required. Registration through Add Course form only!			
Languages, Literature and Linguistics											
71	LING 370	Methods of Teaching Foreign Languages	3	6				Instructor's Permission Required. Registration through Add Course form only!			
Mathematics											
72	MATH 161	Calculus I	4	8				5 year UG SEDS, 5 year UG SSH, Biological Sciences, Chemistry, Mathematics, Physics, SEDS, SMG, Undeclared SEDS, Undeclared SMG, Undeclared SSH	SSH, SoM		
73	MATH 162	Calculus II	4	8	MATH 161 Calculus I (118) (C and above)			5 year UG SEDS, 5 year UG SSH, Biological Sciences, Chemistry, Mathematics, Physics, SEDS, SMG	SSH, SoM		
74	MATH 273	Linear Algebra with Applications	4	8	MATH 161 Calculus I (118) (C and above)	MATH 162 Calculus II (170) (C and above)		1 year UG SSH Physics, 2 year UG SSH Undeclared, 5 year UG SEDS, 5 year UG SSH	Chemistry, Computer Science, Mathematics, Physics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
75	MATH 321	Probability	3	6	MATH 162 Calculus II (170) (C and above)		ECON 211 Economic Statistics (2280) (C- and above) OR PLS 211 Quantitative Methods (221) (C- and above)	2 year UG SEDS Computer Science, 2 year UG SSH Mathematics, 2 year UG SSH Undeclared, 3 year UG SEDS Robotics and Mechatronics, 5 year UG SEDS, 5 year UG SSH	Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
76	MATH 361	Real Analysis I	3	6	MATH 263 Calculus III (81) (C and above) AND MATH 251 Discrete Mathematics (85) (C and above)			5 year UG SEDS, 5 year UG SSH, Mathematics	SEDS, SMG, SSH, SoM		
77	MATH 399	Internship	3	6				Instructor's Permission Required. Registration through Add Course form only!			

78	MATH 497	Directed Study in Mathematics I	3	6				Instructor's Permission Required. Registration through Add Course form only!			
79	MATH 599	Thesis Research Preparation	0	0				Instructor's Permission Required. Registration through Add Course form only!			
80	MATH 700-0	Thesis Research	0	0				Instructor's Permission Required. Registration through Add Course form only!			
Physics											
81	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)	5 year UG SEDS, 5 year UG SSH, SEDS, SMG, SSH, SoM			
82	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)	5 year UG SEDS, 5 year UG SSH, SEDS, SMG, SSH, SoM			
83	PHYS 299	Research project and internship	3	6				Instructor's Permission Required. Registration through Add Course form only!			
84	PHYS 399	Physics Research Project	3	6				Instructor's Permission Required. Registration through Add Course form only!			
85	PHYS 600	Thesis Research	0	0				Instructor's Permission Required. Registration through Add Course form only!			
86	PHYS 700-0	Thesis Research	0	0				Instructor's Permission Required. Registration through Add Course form only!			
Political Science and International Relations											
87	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!			

88	PLS 422	Just War Theory	3	6	PLS 120 Introduction to Political Theory (512) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above)			4 year UG SSH Political Sciences and International Relations, 5 year UG SEDS, 5 year UG SSH, 5 year UG SSH Political Sciences and International Relations	2 year UG SSH Political Sciences and International Relations, 3 year UG SSH Political Sciences and International Relations	SEDS, SMG, SSH, SoM	
89	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!			
90	PLS 597	Research for Thesis	6	12				Instructor's Permission Required. Registration through Add Course form only!			
SSH											
91	SSH 300	School of Sciences and Humanities Internship	3	6				Instructor's Permission Required. Registration through Add Course form only!			
92	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											
93	SOC 400	Research Assistance in Sociology	1	2				Instructor's Permission Required. Registration through Add Course form only!			
94	SOC 403	Research Assistance in Sociology	2	4				Instructor's Permission Required. Registration through Add Course form only!			
SEDS											
Chemical and Materials Engineering											
95	CHME 202	Fluid Mechanics	3	6				4 year UG SEDS Chemical Engineering, 5 year UG SEDS, 5 year UG SSH	3 year UG SEDS Chemical and Materials Engineering		
96	CHME 352	Research Practice	3	6				4 year UG SEDS Chemical Engineering, 5 year UG SEDS, 5 year UG SSH	3 year UG SEDS Chemical and Materials Engineering		
97	DCHME 700-0	Thesis Research	0	0				Chemical Engineering			
98	ECHE 386	Chemical Plant Design and Optimization	3	6				4 year UG SEDS Chemical Engineering, 5 year UG SEDS, 5 year UG SSH			

99	ECHE 418	Capstone project 1	3	6	ECHE 323 Computational methods in Chemical Engineering-I (1272) (D and above)			4 year UG SEDS Chemical Engineering, 5 year UG SEDS, 5 year UG SSH			
100	ECHE 420	Polymer Processing and Rheology	3	6				4 year UG SEDS Chemical Engineering, 5 year UG SEDS, 5 year UG SSH			
101	ECHE 479	Capstone Project II	9	18	ECHE 418 Capstone project 1 (1278) (D and above)			4 year UG SEDS Chemical Engineering, 5 year UG SEDS, 5 year UG SSH			
102	MBME 604	Biosensors	3	6				2 year Gr SEDS Electrical and Computer Engineering			
Civil and Environmental Engineering											
103	CEE 201	Environmental Chemistry	3	6				Instructor's Permission Required. Registration through Add Course form only!			
104	DCEE 700-0	Thesis Research	0	0				Instructor's Permission Required. Registration through Add Course form only!			
Computer Science											
105	CSCI 152	Performance and Data Structures	4	8	CSCI 151 Programming for Scientists and Engineers (192) (C- and above) OR ENG 101 Programming for Engineers (4517) (B- and above)			5 year UG SEDS, 5 year UG SSH, Computer Science, Robotics and Mechatronics	SEDS	SMG, SSH, SoM	
106	CSCI 299	Internship I	3	6				5 year UG SEDS, 5 year UG SSH, Computer Science			
107	CSCI 398	Directed Study	3	6				Instructor's Permission Required. Registration through Add Course form only!			
108	CSCI 399	Internship II	3	6				5 year UG SEDS, 5 year UG SSH, Computer Science			
109	CSCI 399F	Internship II - F	6	12				Instructor's Permission Required. Registration through Add Course form only!			
110	CSCI 409	Senior Project II	3	6	CSCI 408 Senior Project I (1481) (C- and above)						
111	CSCI 700-0	Thesis Research	0	0				Computer Science			
Electrical and Computer Engineering											
112	DELCE 700-0	Thesis Research	0	0				Electrical Engineering			

113	EEE 437	Capstone Project 1	3	6				5 year UG SEDS, 5 year UG SSH, Electrical and Electronic Engineering			
114	ELCE 309	Individual Study	3	6				5 year UG SEDS, 5 year UG SSH, Electrical and Computer Engineering			
Mechanical and Aerospace Engineering											
115	DMAE 700-0	Thesis Research	0	0				Mechanical Engineering			
116	DMAE 770	Digital Transformation Concepts	4	8				Instructor's Permission Required. Registration through Add Course form only!			
117	MAE 302	Machine Elements Design	3	6	MAE 205 Material and Manufacturing I (5534) (D and above)			Instructor's Permission Required. Registration through Add Course form only!			
118	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!			
Robotics and Mechatronics											
119	ROBT 399	Internship	3	6				Instructor's Permission Required. Registration through Add Course form only!			
120	ROBT 700-0	Thesis Research	0	0				Chemical Engineering, Civil Engineering, Computer Science , Electrical Engineering, Mechanical Engineering, Robotics Engineering, Science, Engineering and Technology			
School of Engineering											
121	BENG 312	Internship	6	12				5 year UG SEDS, 5 year UG SSH, SEDS, SMG, SSH, SoM			
122	DENG 700-0	Thesis Research	0	0				2 year PhD SEDS Science, Engineering and Technology			
123	DENG 794	Dissertation Research	12	24	DENG 785 PhD Proposal Oral Defence (2604) (P)			4 year PhD SEDS Science, Engineering and Technology, 5 year PhD SEDS Science, Engineering and Technology			
124	DENG 796	Thesis Completion	0	0				3 year PhD SEDS Science, Engineering and Technology, 4 year PhD SEDS Science, Engineering and Technology, 5 year PhD SEDS Science, Engineering and Technology			

125	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)			2 year PhD SEDS Science, Engineering and Technology, 3 year PhD SEDS Science, Engineering and Technology, 4 year PhD SEDS Science, Engineering and Technology, 5 year PhD SEDS Science, Engineering and Technology			
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