

Course Requirements and Registration Priorities (Undergraduate), Spring 2022

#	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				2 year UG SOM, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH	SEDS, SMG, SSH, SoM	
2	BUS 420	Business Law	3	6	BUS 101 Core Course in Business (5889) (C- and above)			4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH	SEDS, SMG, SSH, SoM	
SoM											
Nursing											
3	NUR 101	Human Anatomy and Physiology I and Lab	4	8				1 year UG SOM Nursing			
4	NUR 102L	Human Anatomy and Physiology II with Lab	4	8				1 year UG SOM Nursing			
5	NUR 122	English-Russian-Kazakh Medical Terminology	2	4				2 year UG SOM Nursing			
6	NUR 202	Introduction to Genetics and Molecular Therapeutics	3	6				3 year UG SOM Nursing			
7	NUR 204	Nutrition Essentials for Nursing Clinical Practice	2	4				2 year UG SOM Nursing			
8	NUR 212/L	Foundations of Nursing Practice II	2	4				2 year UG SOM Nursing			
9	NUR 213/C	Medical-Surgical Nursing I: Clinical	7	14				2 year UG SOM Nursing			
10	NUR 221	Nursing Research: Introduction to Critical Appraisal and Evidence-Based Practice	3	6				2 year UG SOM Nursing			
11	NUR 305	Research Methods for Nursing	3	6				Nursing (two year program)			
12	NUR 306	Medical-Surgical Nursing: Complex Medical Management for Acute and Chronic Patient	4	8				Nursing (two year program)			
13	NUR 307	Health Promotion and Disease Prevention in Culturally Diverse Populations	4	8				Nursing (two year program)			
14	NUR 308	Enhanced Communication in Professional Nursing	4	8				Nursing (two year program)			

15	NUR 311C	Obstetric Nursing + Clinical	5	10				3 year UG SOM Nursing			
16	NUR 312C	Pediatric Nursing + Clinical: Care of Children and Families	4	8				3 year UG SOM Nursing			
17	NUR 315	Health Promotion and Disease Prevention	2	4				3 year UG SOM Nursing			
18	NUR 321	Ethics in Healthcare	2	4				3 year UG SOM Nursing			
19	NUR 402	Principles of Healthcare Administration	4	8				Nursing (two year program)			
20	NUR 405	Issues and Trends in Nursing	4	8				Nursing (two year program)			
21	NUR 406.2	Medical-Surgical Nursing: Complex Management	4	8				Nursing (two year program)			
22	NUR 407	Capstone: Clinical and EBP Quality Improvement Research	4	8				Nursing (two year program)			
SMG											
Mining Engineering											
23	MINE 201	Mineral Processing	3	6				2 year UG SMG Mining Engineering, 4 year UG SMG Geology	SMG	SEDS	
24	MINE 306	Underground Mining Systems and Design	3	6	MINE 302 Geomechanics (5878) (D and above) AND MINE 405 Mine Ventilation (5879) (D and above)			3 year UG SMG Mining Engineering	SMG	SEDS	
25	MINE 307	Surface Mining System and Design	3	6	MINE 302 Geomechanics (5878) (D and above)			3 year UG SMG Mining Engineering	SMG	SEDS	
26	MINE 308	Mine Planning	3	6				3 year UG SMG Mining Engineering	SMG	SEDS	
27	MINE 309	Sustainability and Mining Environment	3	6	SMG 100 Introduction to Natural Resources Extraction (4773) (D and above)			3 year UG SMG Mining Engineering, 4 year UG SMG Geology	SMG	SEDS	
28	MINE 310	Rock Breakage	3	6	MINE 302 Geomechanics (5878) (D and above)			3 year UG SMG Mining Engineering	SMG	SEDS	
29	MINE 403	Mine Risk Management	3	6				4 year UG SMG Mining Engineering	SMG	SEDS	
30	MINE 480	Mine Design Project	3	6	MINE 307 Surface Mining System and Design (6150) (C- and above) OR MINE 306 Underground Mining Systems and Design (6151) (C- and above)			4 year UG SMG Mining Engineering	SMG	SEDS	
31	MINE 490	Research project II	3	6	MINE 489 Research Project I (6419) (P)			4 year UG SMG Mining Engineering	SMG	SEDS	

Petroleum Engineering

32	PETE 202	Transport Phenomena	3	6	ENG 200 Engineering Mathematics III (Differential Equations and Linear Algebra) (5009) (C- and above) OR CHEM 101 General Chemistry I (113) (C- and above) OR CHEM 101L General Chemistry I lab (179) (C- and above)			2 year UG SMG Petroleum Engineering	SMG		
33	PETE 203	Drilling Engineering with Laboratories	4	8	PETE 201 Fluid Mechanics and Thermodynamics (5120) (C- and above)			2 year UG SMG Petroleum Engineering	SMG		
34	PETE 204	Reservoir Rock and Fluid Properties with Lab	4	8	PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above)			2 year UG SMG Petroleum Engineering, 4 year UG SMG Geology	SMG		
35	PETE 305	Well Test Analysis	3	6	PETE 302 Reservoir Engineering I with Laboratory works (5955) (C- and above)			3 year UG SMG Petroleum Engineering	SMG		
36	PETE 306	Reservoir Engineering II	3	6	PETE 204 Reservoir Rock and Fluid Properties with Lab (5487) (C- and above) OR PETE 302 Reservoir Engineering I with Laboratory works (5955) (C- and above)			3 year UG SMG Petroleum Engineering	SMG		
37	PETE 307	Production Engineering	3	6	PETE 201 Fluid Mechanics and Thermodynamics (5120) (C- and above) OR PETE 302 Reservoir Engineering I with Laboratory works (5955) (C- and above)			3 year UG SMG Petroleum Engineering	SMG		
38	PETE 311	Reservoir Simulation	3	6	PETE 301 Numerical Methods for Petroleum Engineers (5881) (C- and above) AND PETE 302 Reservoir Engineering I with Laboratory works (5955) (C- and above) AND PETE 304 Well Completion and Stimulation (5883) (C- and above)			4 year UG SMG Petroleum Engineering	SMG		

39	PETE 404	Petroleum Geomechanics	3	6	GEOL 101 Fundamentals of Geology (4774) (C- and above) OR GEOL 102 Fundamentals of Geology (4772) (C- and above)			4 year UG SMG Petroleum Engineering	SMG		
40	PETE 405	Enhanced Oil Recovery	3	6	PETE 204 Reservoir Rock and Fluid Properties with Lab (5487) (D and above)			3 year UG SMG Petroleum Engineering	SMG		
41	PETE 407	Capstone Design Project II	3	6	PETE 400 Capstone Design Project I (6424) (P)			4 year UG SMG Petroleum Engineering	SMG		
School of Mining and Geosciences											
42	GEOL 101	Fundamentals of Geology	3	6				1 year UG SMG	SMG	SEDS, SSH	
43	GEOL 204	Sedimentology and stratigraphy	3	6	GEOL 101 Fundamentals of Geology (4774) (D and above) OR GEOL 102 Fundamentals of Geology (4772) (D and above) AND GEOL 202 Geologic Maps and Cross-Sections (5123) (D and above)			2 year UG SMG Geology	SMG		
44	GEOL 205	Paleontology	3	6	GEOL 101 Fundamentals of Geology (4774) (D and above) OR GEOL 102 Fundamentals of Geology (4772) (D and above)			2 year UG SMG Geology	SMG		
45	GEOL 206	Field Geology 1	3	6	GEOL 202 Geologic Maps and Cross-Sections (5123) (C- and above)			2 year UG SMG Geology	SMG		
46	GEOL 301	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)		2 year UG SMG Geology	SMG		
47	GEOL 304	Geophysics	3	6	GEOL 204 Sedimentology and stratigraphy (5475) (D and above)			3 year UG SMG Geology	SMG		
48	GEOL 306	Geodynamics	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	SMG		
49	GEOL 307	Geographic Information Systems	3	6				3 year UG SMG Geology	SMG		

50	GEOL 308	Environmental Geochemistry	3	6				3 year UG SMG Geology	SMG		
51	GEOL 309	Hydrogeology	3	6				3 year UG SMG Geology	SMG		
52	GEOL 403	Geostatistics	3	6	MATH 161 Calculus I (118) (C- and above)			4 year UG SMG Geology			
53	GEOL 405	Research Project II	3	6	GEOL 404 Research Project I (6423) (C- and above)			4 year UG SMG Geology			
54	SMG 400	Engineering Economics	3	6	SMG 200/ECON 220 Resource Economics (6197) (C- and above)			4 year UG SMG Geology, 4 year UG SMG Mining Engineering, 4 year UG SMG Petroleum Engineering	4 year UG SSH, SMG		
SSH											
Biological Science											
55	BIOL 101	Biology for non-Science majors	3	6			BIOL 110 Modern Biology I (1070) (C- and above)	5 year UG SEDS, 5 year UG SSH, Anthropology, Economics, History, Nursing, Political Science and International Relations, Sociology, Undeclared SSH, World Languages, Literatures and Cultures			
56	BIOL 110	Modern Biology I	3	6				5 year UG SEDS, 5 year UG SSH, Biological Sciences, Medical Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
57	BIOL 110L	Modern Biology I Laboratory	1	2		BIOL 110 Modern Biology I (1070) (C and above)		5 year UG SEDS, 5 year UG SSH, Biological Sciences, Medical Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
58	BIOL 120	Modern Biology II	3	6	BIOL 110 Modern Biology I (1070) (C and above)			5 year UG SEDS, 5 year UG SSH, Biological Sciences, Medical Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
59	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, Biological Sciences, Medical Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	

60	BIOL 230	Human Anatomy and Physiology I	3	6	BIOL 110 Modern Biology I (107) (C and above) OR BIOL 110 Modern Biology I (1070) (C and above)			Biological Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
61	BIOL 301	Molecular Cell Biology	3	6	BIOL 120 Modern Biology II (1195) (C and above)			3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences	2 year UG SSH Biological Sciences, Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
62	BIOL 301L	Molecular Cell Biology Laboratory	1	2	BIOL 120 Modern Biology II (1195) (C and above) OR BIOL 120L Modern Biology II Laboratory (5443) (C and above)	BIOL 301 Molecular Cell Biology (5809) (C and above)		3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences	2 year UG SSH Biological Sciences, Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
63	BIOL 305	Introduction to Microbiology	3	6	(BIOL 120 Modern Biology II (1195) (C and above) AND BIOL 120L Modern Biology II Laboratory (5443) (C and above)) OR BIOL 120 Modern Biology II (1195) (C and above)			3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences	2 year UG SSH Biological Sciences, Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
64	BIOL 305L	Introduction to Microbiology Laboratory	1	2	BIOL 120 Modern Biology II (1195) (C and above) OR BIOL 120L Modern Biology II Laboratory (5443) (C and above)	BIOL 305 Introduction to Microbiology (5789) (C and above)		3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences	2 year UG SSH Biological Sciences, Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
65	BIOL 310	Immunology	3	6	BIOL 301 Molecular Biology of Cell with Lab (1197) (C and above) OR BIOL 305 Introduction to Microbiology with Lab (1642) (C and above) OR BIOL 301 Molecular Cell Biology (5809) (C and above) OR BIOL 305 Introduction to Microbiology (5789) (C and above)			3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	

66	BIOL 321	Bioethics	3	6	BIOL 120 Modern Biology II (1195) (C and above)			4 year UG SSH Biological Sciences, 4 year UG SSH Chemistry, 5 year UG SEDS, 5 year UG SSH	3 year UG SSH Biological Sciences, 3 year UG SSH Chemistry	SEDS, SMG, SSH, SoM	
67	BIOL 331	Human Anatomy and Physiology II	3	6	BIOL 230 Human Anatomy and Physiology I (72) (C and above) OR BIOL 230 Human Anatomy and Physiology I (6217) (C and above)			Biological Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
68	BIOL 331L	Human Anatomy and Physiology II Laboratory	1	2	BIOL 110 Modern Biology I Lab (1444) (C and above) OR BIOL 110L Modern Biology I Laboratory (5448) (C and above)	BIOL 331 Human Anatomy and Physiology II (6218) (C and above) OR BIOL 231 Human Anatomy and Physiology II (479) (C and above)		Biological Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
69	BIOL 333	Environmental Biology	3	6	BIOL 120 Modern Biology II (1195) (C and above)			Biological Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
70	BIOL 341	Biochemistry I	3	6	CHEM 211 Organic Chemistry I (154) (C and above)			2 year UG SOM Medical Sciences, 3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences	2 year UG SSH Biological Sciences, Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
71	BIOL 341L	Biochemistry I Lab	1	2		BIOL 341 Biochemistry I (2002) (C and above)		Biological Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
72	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	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
73	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)			Biological Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	

74	BIOL 370	Genetics	3	6	BIOL 120 Modern Biology II (1195) (C and above)			3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences	2 year UG SSH Biological Sciences, Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
75	BIOL 370L	Genetics Laboratory	1	2		BIOL 370 Genetics (1174) (C and above)		3 year UG SSH Biological Sciences, 4 year UG SSH Biological Sciences	2 year UG SSH Biological Sciences, Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
76	BIOL 392	Directed Study in Biology	3	6				Instructor's Permission Required. Registration through Add Course form only!			
77	BIOL 425	Biomedical Research Methods	3	6	BIOL 110 Modern Biology I (1070) (C and above) AND (BIOL 301 Molecular Biology of Cell with Lab (1197) (C and above) OR (BIOL 301 Molecular Cell Biology (5809) (C and above) AND BIOL 301L Molecular Cell Biology Laboratory (5678) (C and above))) AND (BIOL 341 Biochemistry I (2002) (C and above) OR CHEM 341 Biochemistry I (1058) (C and above))			Biological Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
78	BIOL 430	Histology with Laboratory	4	8	BIOL 230 Human Anatomy and Physiology I (72) (C and above) OR BIOL 230 Human Anatomy and Physiology I (6217) (C and above)			Biological Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
79	BIOL 440	Neuroscience	3	6	BIOL 230 Human Anatomy and Physiology I (72) (C and above) OR BIOL 230 Human Anatomy and Physiology I (6217) (C and above)			Biological Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	

80	BIOL 445	Medical Microbiology	3	6	BIOL 305 Introduction to Microbiology (5789) (C and above) OR BIOL 305 Introduction to Microbiology with Lab (1642) (C and above)			Biological Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
81	BIOL 450	Food Microbiology	3	6	BIOL 305 Introduction to Microbiology with Lab (1642) (C and above) OR BIOL 305 Introduction to Microbiology (5789) (C and above)			Biological Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
82	BIOL 456	Biology Research Design	3	6		BIOL 355 Critical Research Reasoning (1000) (C and above)		4 year UG SSH Biological Sciences	3 year UG SSH Biological Sciences, Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
83	BIOL 468	Integrated Cell Biology	3	6	(BIOL 110 Modern Biology I (107) (C and above) OR BIOL 110 Modern Biology I (1070) (C and above)) AND BIOL 120 Modern Biology II (1195) (C and above)			Biological Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
84	BIOL 471	Light and Electron microscopy concepts and techniques	3	6	BIOL 110 Modern Biology I (1070) (C and above) AND BIOL 120 Modern Biology II (1195) (C and above) AND CHEM 101 General Chemistry I (113) (C and above) AND PHYS 161 Physics I for Scientists and Engineers with Laboratory (116) (C and above)			Biological Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
85	BIOL 471L	Light and Electron Microscopy Concepts and Techniques-Lab	1	2		BIOL 471 Light and Electron microscopy concepts and techniques (4686) (C and above)		Biological Sciences	Chemistry, Computer Science, Mathematics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
86	BIOL 491	Honors Thesis	9	18	BIOL 490 Honors Thesis Research (1581) (P)			Biological Sciences			

Chemistry

87	CHEM 092	Survey of Environmental Sciences for Non-Science Majors	3	6				5 year UG SEDS, 5 year UG SSH, Anthropology, Economics, History, Nursing, Political Science and International Relations, Sociology, Undeclared SSH, World Languages, Literatures and Cultures			
88	CHEM 101	General Chemistry I	3	6				5 year UG SEDS, 5 year UG SSH, Biological Sciences, Chemistry, SoM	Computer Science, Electrical and Computer Engineering, Mathematics, Physics, Robotics and Mechatronics, SMG	SEDS, SSH	
89	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, SoM	Computer Science, Electrical and Computer Engineering, Mathematics, Physics, Robotics and Mechatronics, SMG	SEDS, SSH	
90	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, SoM	Computer Science, Electrical and Computer Engineering, Mathematics, Physics, Robotics and Mechatronics, SMG	SEDS, SSH	
91	CHEM 211	Organic Chemistry I	3	6	CHEM 102 General Chemistry II (232) (C and above)			5 year UG SEDS, 5 year UG SSH, Chemistry, Undeclared SSH	Biological Sciences	SEDS, SMG, SSH, SoM	
92	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	SEDS, SMG, SSH, SoM	

93	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	SEDS, SMG, SSH, SoM	
94	CHEM 250	Descriptive Inorganic Chemistry	3	6	CHEM 101 General Chemistry I (113) (C and above)			Chemistry	Biological Sciences	SEDS, SMG, SSH, SoM	
95	CHEM 320	Instrumental Analysis	3	6	CHEM 220 Quantitative Chemical Analysis (555) (C and above)			Chemistry	Biological Sciences	SEDS, SMG, SSH, SoM	
96	CHEM 320L	Instrumental Analysis Lab	1	2	(CHEM 220 Quantitative Chemical Analysis (555) (C and above) AND CHEM 220L Quantitative Chemical Analysis Lab (5271) (C and above)) OR CHEM 220 Quantitative Chemical Analysis (555) (C and above)	CHEM 320 Instrumental Analysis (1055) (C and above)		Chemistry	Biological Sciences	SEDS, SMG, SSH, SoM	
97	CHEM 331L	Physical Chemistry Lab	1	2		CHEM 331 Physical Chemistry I (634) (C and above)		Chemistry	Biological Sciences	SEDS, SMG, SSH, SoM	
98	CHEM 332	Physical Chemistry II	3	6	CHEM 331 Physical Chemistry I (634) (C and above)	MATH 274 Introduction to Differential Equations (484) (C and above)		Chemistry	Biological Sciences	SEDS, SMG, SSH, SoM	
99	CHEM 332L	Physical Chemistry II Lab	1	2		CHEM 332 Physical Chemistry II (1056) (C and above) AND CHEM 331L Physical Chemistry Lab (1060) (C and above)		Chemistry	Biological Sciences	SEDS, SMG, SSH, SoM	
100	CHEM 341L	Biochemistry I Lab	1	2	CHEM 212L Organic Chemistry II Lab (444) (C and above)	CHEM 341 Biochemistry I (1058) (C and above)		Chemistry	Biological Sciences	SEDS, SMG, SSH, SoM	
101	CHEM 380	Research Methods	3	6				Chemistry	Biological Sciences	SEDS, SMG, SSH, SoM	

102	CHEM 411	Advanced Organic Chemistry I	3	6	CHEM 212 Organic Chemistry II (443) (C and above) AND MATH 161 Calculus I (118) (C and above)			Chemistry	Biological Sciences	SEDS, SMG, SSH, SoM	
103	CHEM 431	Computational Chemistry	3	6	CHEM 332 Physical Chemistry II (1056) (C and above) AND (CSCI 111 Web Programming and Problem Solving (110) (C- and above) OR CSCI 150 Fundamentals of Programming (1501) (C- and above) OR CSCI 151 Programming for Scientists and Engineers (192) (C- and above))			Chemistry	Biological Sciences	SEDS, SMG, SSH, SoM	
104	CHEM 433	Surfactants and Colloids	3	6	CHEM 102 General Chemistry II (232) (C and above)			Chemistry	Biological Sciences	SEDS, SMG, SSH, SoM	
105	CHEM 442	Biochemistry II with Lab-Metabolic Biochemistry	3	6	CHEM 341 Biochemistry I (1058) (C and above) AND CHEM 212 Organic Chemistry II (443) (C and above)			Chemistry	Biological Sciences	SEDS, SMG, SSH, SoM	
106	CHEM 451	Applied Homogenous Catalysis	3	6	CHEM 350 Advanced Inorganic Chemistry (1905) (C and above)			Chemistry	Biological Sciences	SEDS, SMG, SSH, SoM	
Communication and Composition											
107	WCS 101	Communication and Society	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		
108	WCS 150	Rhetoric and Composition	3	6				1 year UG SEDS, 1 year UG SMG, 1 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH, SoM	SEDS, SMG, SSH		
109	WCS 200	Introduction to Public Speaking	3	6	WCS 150 Rhetoric and Composition (2183) (C- and above)			2 year UG SEDS, 2 year UG SMG, 2 year UG SSH, 5 year UG SEDS, 5 year UG SSH, SoM	3 year UG SEDS, 3 year UG SMG, 3 year UG SSH, 4 year UG SEDS	SEDS, SMG, SSH	
110	WCS 201	Introduction to Journalism	3	6	WCS 101 Communication and Society (199) (C- and above) OR WCS 150 Rhetoric and Composition (2183) (C- and above)				SEDS, SMG, SSH, SoM		
111	WCS 205	Intercultural Communication	3	6					SEDS, SMG, SSH, SoM		

112	WCS 210	Technical and Professional Writing	3	6	WCS 150 Rhetoric and Composition (2183) (C-and above)			2 year UG SEDS, 2 year UG SMG, 4 year UG SEDS, 4 year UG SMG, 5 year UG SEDS, 5 year UG SSH, SoM	SEDS, SMG	SSH	
113	WCS 230	Say What you Mean: Clarity, Precision, and Style in Academic Writing	3	6	WCS 150 Rhetoric and Composition (2183) (C-and above)			2 year UG SEDS, 2 year UG SMG, 2 year UG SSH, 5 year UG SEDS, 5 year UG SSH, SoM	3 year UG SEDS, 3 year UG SMG, 3 year UG SSH, 4 year UG SEDS	SEDS, SMG, SSH	
114	WCS 240	Writing for Digital Media	3	6	WCS 150 Rhetoric and Composition (2183) (C-and above)			2 year UG SEDS, 2 year UG SMG, 2 year UG SSH, 5 year UG SEDS, 5 year UG SSH, SoM	3 year UG SEDS, 3 year UG SMG, 3 year UG SSH, 4 year UG SEDS	SEDS, SMG, SSH	
115	WCS 250	Advanced Rhetoric and Composition	3	6	WCS 150 Rhetoric and Composition (2183) (C-and above)			2 year UG SEDS, 2 year UG SMG, 2 year UG SSH, 5 year UG SEDS, 5 year UG SSH, SoM	3 year UG SEDS, 3 year UG SMG, 3 year UG SSH, 4 year UG SEDS	SEDS, SMG, SSH	
116	WCS 302	Argumentation and Debate	3	6	WCS 200 Introduction to Public Speaking (175) (C-and above)			SSH		SEDS, SMG, SoM	
117	WCS 390	Writing Fellows I - Composition and Collaboration in Theory and Practice	3	6	WCS 150 Rhetoric and Composition (2183) (B and above) AND (WCS 210 Technical and Professional Writing (4881) (B+ and above) OR WCS 220 Science Writing (5686) (B+ and above) OR WCS 230 Say What you Mean: Clarity, Precision, and Style in Academic Writing (3026) (B+ and above) OR WCS 240 Writing for Digital Media (4421) (B+ and above) OR WCS 250 Advanced Rhetoric and Composition (3027) (B+ and above))			3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH	SEDS, SMG, SSH, SoM		
118	WCS 391	Writing Fellows II - Practicum in Composition & Collaboration	3	6	WCS 390 Writing Fellows I - Composition and Collaboration in Theory and Practice (1969) (B and above)			Instructor's Permission Required. Registration through Add Course form only!			
119	WCS 392	Writing Fellows III - Research & Practice in Writing & Peer Mentorship	3	6	WCS 391 Writing Fellows II - Practicum in Composition & Collaboration (3425) (B and above)			Instructor's Permission Required. Registration through Add Course form only!			

Communication and Composition, Languages, Literature and Linguistics										
120	WCS 260/WLL 235	Creative Writing: Introduction to Fiction Writing I	3	6	WCS 150 Rhetoric and Composition (2183) (C- and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM
121	WCS 360/WLL 360	Poetry Writing Seminar	3	6				Instructor's Permission Required. Registration through Add Course form only!		
122	WLL 462/WCS 462	Creative Nonfiction	3	6	WCS 260/WLL 235 Creative Writing: Introduction to Fiction Writing I (4000) (C and above)			Instructor's Permission Required. Registration through Add Course form only!		
123	WLL 465/WCS 465	Creative Writing: Autofiction	3	6	WCS 260/WLL 235 Creative Writing: Introduction to Fiction Writing I (4000) (C- and above)			Instructor's Permission Required. Registration through Add Course form only!		
Economics										
124	ECON 101	Introduction to Microeconomics	3	6				5 year UG SEDS, 5 year UG SSH, Undeclared SSH	SSH	SEDS, SMG, SoM
125	ECON 102	Introduction to Macroeconomics	3	6				5 year UG SEDS, 5 year UG SSH, Undeclared SSH	SSH	SEDS, SMG, SoM
126	ECON 120	Managerial Economics	3	6				SEDS		Anthropology, Biological Sciences, Chemistry, History, Mathematics, Physics, Political Science and International Relations, SMG, SoM, Sociology, Undeclared SSH, World Languages, Literatures and Cultures
127	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

128	ECON 202	Intermediate Macroeconomics	3	6	ECON 102 Introduction to Macroeconomics (503) (B- and above) AND (MATH 161 Calculus I (118) (B- and above) OR MATH 162 Calculus II (170) (B- and above))			Economics	2 year UG SSH Undeclared	SSH	
129	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	
130	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	
131	ECON 302	Game Theory and Economic Analysis	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above)		PLS 315 Political Game Theory (704) (C- and above)	3 year UG SSH Economics	4 year UG SSH Economics	SSH	
132	ECON 305	Advanced Microeconomics	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above)	ECON 211 Economic Statistics (2280) (D and above)	ECON 398 General Special Topics in Economics (2184) (C- and above)	3 year UG SSH Economics	4 year UG SSH Economics	SSH	
133	ECON 319	Matching Theory and Applications	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above)			3 year UG SSH Economics	4 year UG SSH Economics	SSH	
134	ECON 328	Labor Economics	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above)			3 year UG SSH Economics	4 year UG SSH Economics	SSH	
135	ECON 332	Urban Economics	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above)			3 year UG SSH Economics	4 year UG SSH Economics	SSH	
136	ECON 341	Economic Simulation Modeling	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above)			3 year UG SSH Economics	4 year UG SSH Economics	SSH	
137	ECON 413	Econometrics II Time Series	3	6	ECON 301 Econometrics I (664) (C- and above)			Economics		SSH	

138	ECON 416	Empirical Industrial Organization	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above) AND ECON 301 Econometrics I (664) (C- and above)			Economics		SSH	
139	ECON 428	Wages and the Labor Market	3	6	ECON 201 Intermediate Microeconomics (133) (C- and above) AND ECON 301 Econometrics I (664) (C- and above)			Economics		SSH	
140	ECON 443	Topics in Macroeconomic Theory	3	6	ECON 202 Intermediate Macroeconomics (207) (C- and above) AND ECON 301 Econometrics I (664) (C- and above)			Economics		SSH	
History, Philosophy and Religious Studies											
141	HST 100	History of Kazakhstan	3	6				4 year UG SEDS, 4 year UG SEDS (pending graduation), 4 year UG SMG, 4 year UG SSH, 4 year UG SSH (pending graduation), 5 year UG SEDS, 5 year UG SSH	1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH, 2 year UG SOM	SEDS, SMG, SSH, SoM	
142	HST 121	World History I (to 1500)	3	6				5 year UG SEDS, 5 year UG SSH, History, Undeclared SEDS, Undeclared SMG, Undeclared SSH	SEDS, SMG, SSH, SoM		
143	HST 132	European History II (from 1700)	3	6				5 year UG SEDS, 5 year UG SSH, History, Undeclared SEDS, Undeclared SMG, Undeclared SSH	SEDS, SMG, SSH, SoM		
144	HST 205	The Mongol Empire	3	6	Subject "HST" BETWEEN 100 and 199 OR Subject "" BETWEEN 100 and 199 OR Subject "" BETWEEN 100 and 199 OR Subject "" BETWEEN 100 and 199			5 year UG SEDS, 5 year UG SSH, History, Undeclared SEDS, Undeclared SMG, Undeclared SSH	SEDS, SMG, SSH, SoM		
145	HST 238	Clash of Civilizations: Communities, Confessions and Empires in Central Europe, 1000-1890	3	6				5 year UG SEDS, 5 year UG SSH, History, Undeclared SEDS, Undeclared SMG, Undeclared SSH	SEDS, SMG, SSH, SoM		
146	HST 400	Research Assistance	1	2	HST 100 History of Kazakhstan (172) (B and above) AND Subject "HST" BETWEEN 100 and 499			Instructor's Permission Required. Registration through Add Course form only!			

147	HST 434	Neither Red, Nor White: 1917 Revolution as a National Moment	3	6	HST 100 History of Kazakhstan (172) (D and above) AND Subject "HST" BETWEEN 200 and 300			5 year UG SEDS, 5 year UG SSH, History, Undeclared SEDS, Undeclared SMG, Undeclared SSH	SEDS, SMG, SSH, SoM		
148	HST 499	History Capstone: Undergraduate Dissertation	4	8	HST 498 Directed Reading (1365) (C- and above)			Instructor's Permission Required. Registration through Add Course form only!			
149	PHIL 101	Introduction to Philosophy	3	6				SEDS, SMG, SSH, SoM			
150	PHIL 124	Knowledge and Reality	3	6				SEDS, SMG, SSH, SoM			
151	PHIL 141	Critical Thinking	3	6				SEDS, SMG, SSH, SoM			
152	PHIL 210	Ethics	3	6				5 year UG SEDS, 5 year UG SSH, Chemical Engineering, Chemical and Materials Engineering, Civil Engineering, Civil and Environmental Engineering, Electrical and Computer Engineering, Electrical and Electronic Engineering, Mechanical Engineering, Mechanical and Aerospace Engineering, SMG	SEDS, SSH, SoM		
153	PHIL 223	Philosophy of Science	3	6				SEDS, SMG, SSH, SoM			
154	PHIL 240	Formal Logic	3	6				SEDS, SMG, SSH, SoM			
155	PHIL 320	Truth, Knowledge and Belief	3	6				SEDS, SMG, SSH, SoM			
156	REL 212	Buddhist Religious Traditions	3	6				SEDS, SMG, SSH, SoM			
History, Philosophy and Religious Studies, History, Philosophy and Religious Studies											
157	HST 263/REL 263	The History of Islam II: Islam in the Modern World	3	6				5 year UG SEDS, 5 year UG SSH, History, Undeclared SEDS, Undeclared SMG, Undeclared SSH	SEDS, SMG, SSH, SoM		
158	HST 268/REL 268	Women and Islam in Central Eurasia	3	6				5 year UG SEDS, 5 year UG SSH, History, Undeclared SEDS, Undeclared SMG, Undeclared SSH	SEDS, SMG, SSH, SoM		

159	REL 110/HST 110	Introduction to World Religions	3	6				5 year UG SEDS, 5 year UG SSH, History, Undeclared SEDS, Undeclared SMG, Undeclared SSH	SEDS, SMG, SSH, SoM		
160	REL 440/HST 440	Religions in the Soviet and Post-Soviet Eras	3	6	Subject "REL" BETWEEN 100 and 200 OR Subject "REL" BETWEEN 100 and 200 OR Subject "HST" BETWEEN 100 and 200			5 year UG SEDS, 5 year UG SSH, History, Undeclared SEDS, Undeclared SMG, Undeclared SSH	SEDS, SMG, SSH, SoM		
History, Philosophy and Religious Studies, Kazakh Language and Turkic Studies											
161	HST 224/TUR 224	WWI and the World: Causes, conduct and the consequences of WWI	3	6				5 year UG SEDS, 5 year UG SSH, History, Undeclared SEDS, Undeclared SMG, Undeclared SSH	SEDS, SMG, SSH, SoM		
162	HST 272/TUR 272	Modern Turkey: from the Ottoman Empire to the Turkish Republic	3	6				5 year UG SEDS, 5 year UG SSH, History, Undeclared SEDS, Undeclared SMG, Undeclared SSH	SEDS, SMG, SSH, SoM		
History, Philosophy and Religious Studies, Languages, Literature and Linguistics											
163	HST 274/WLL 274	Texts and Contexts	3	6				5 year UG SEDS, 5 year UG SSH, History, Undeclared SEDS, Undeclared SMG, Undeclared SSH, World Languages, Literatures and Cultures	SEDS, SMG, SSH, SoM		
History, Philosophy and Religious Studies, Languages, Literature and Linguistics, Political Science and International Relations											
164	HST 342/WLL 342/PLS 322	Russian Intellectual History (1762 - 1905)	3	6	Subject "HST" BETWEEN 100 and 199 OR Subject "WLL" BETWEEN 100 and 199 OR Subject "PLS" BETWEEN 100 and 199 OR Subject "REL" BETWEEN 100 and 199			5 year UG SEDS, 5 year UG SSH, History, Undeclared SEDS, Undeclared SMG, Undeclared SSH	SEDS, SMG, SSH, SoM		
History, Philosophy and Religious Studies, Sociology and Anthropology											
165	HST 223/ANT 287	Cannibalism and Civilization	3	6				5 year UG SEDS, 5 year UG SSH, History, Undeclared SEDS, Undeclared SMG, Undeclared SSH	SEDS, SMG, SSH, SoM		
166	HST 381/SOC 319	AIDS and Society	3	6	Subject "HST" BETWEEN 101 and 199 OR HST 100 History of Kazakhstan (172) (B- and above)			5 year UG SEDS, 5 year UG SSH, History, SoM, Undeclared SEDS, Undeclared SMG, Undeclared SSH	SEDS, SMG, SSH		

Kazakh Language and Turkic Studies

167	KAZ 001	Kazakh Language Placement Test	0	0							
168	KAZ 201	Academic Kazakh I	3	6	KAZ 150 Basic Kazakh (1215) (C- and above) OR KLL "[B1.2] Intermediate"			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, 1 year UG SMG, 1 year UG SOM, Undeclared SEDS	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	
169	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 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, 1 year UG SMG, 1 year UG SOM, Undeclared SEDS	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	
170	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)	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, 1 year UG SMG, 1 year UG SOM, Undeclared SEDS	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	

171	KAZ 313	Kazakh for Business	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			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, 1 year UG SMG, 1 year UG SOM, Undeclared SEDS	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	
172	KAZ 356	Kazakh Music History	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			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, 1 year UG SMG, 1 year UG SOM, Undeclared SEDS	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	
173	KAZ 357	Literature of Alash	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			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, 1 year UG SMG, 1 year UG SOM, Undeclared SEDS	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	

174	KAZ 363	Language and Globalization	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			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, 1 year UG SMG, 1 year UG SOM, Undeclared SEDS	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	
175	KAZ 364	Kazakh for Civil Service	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			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, 1 year UG SMG, 1 year UG SOM, Undeclared SEDS	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	
176	KAZ 365	Abai's World	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			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, 1 year UG SMG, 1 year UG SOM, Undeclared SEDS	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	

177	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 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, 1 year UG SMG, 1 year UG SOM, Undeclared SEDS	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	
178	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 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, 1 year UG SMG, 1 year UG SOM, Undeclared SEDS	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	
179	KAZ 371	Contemporary Kazakh Literature	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			1 year UG SEDS 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, 1 year UG SMG, 1 year UG SOM, Undeclared SEDS	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	

180	KAZ 372	Language and ethnicity	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			1 year UG SEDS 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, 1 year UG SMG, 1 year UG SOM, Undeclared SEDS	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	
181	KAZ 373	Kazakh Terminology	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			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, 1 year UG SMG, 1 year UG SOM, Undeclared SEDS	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	
182	KAZ 374	Kazakh Diplomacy	3	6	KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced"			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, 1 year UG SMG, 1 year UG SOM, Political Science and International Relations, Undeclared SEDS	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	

183	KAZ 410	Kazakh literature of the XV-XIX centuries	3	6	Subject "KAZ" BETWEEN 300 and 399 OR Subject "KAZ" BETWEEN 300 and 399			1 year UG SEDS 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, 1 year UG SMG, 1 year UG SOM, Undeclared SEDS	3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH, 4 year UG SEDS, 4 year UG SMG, 4 year UG SSH	1 year UG SEDS, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	
184	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!			
185	TUR 100	Languages, Cultures, and Communities of the Turkic World	3	6				1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH, 5 year UG SEDS, 5 year UG SSH	SEDS, SMG, SSH, SoM		
186	TUR 231	Istanbul in Literature and Culture	3	6				SEDS, SMG, SSH, SoM			
187	TUR 412	Advanced Turkish in Media and Politics	3	6				SEDS, SMG, SSH, SoM			
188	TUR 451	The Turkish Novel	3	6				SEDS, SMG, SSH, SoM			
Languages, Literature and Linguistics											
189	CHN 101	Beginning Mandarin I	4	8				1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH	3 year UG SEDS, 3 year UG SMG, 3 year UG SSH		
190	CHN 102	Beginning Mandarin II	4	8	CHN 101 Beginning Mandarin I (1384) (C and above)			World Languages, Literatures and Cultures	Undeclared SSH	SEDS, SMG, SSH, SoM	
191	CHN 301	Upper Intermediate Chinese I	4	8	CHN 202 Intermediate Mandarin II (2678) (C and above)			World Languages, Literatures and Cultures		SEDS, SMG, SSH, SoM	

192	FRE 101	Beginning French I	4	8				1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH, 3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH			
193	GER 101	Beginning German	4	8				1 year UG SEDS, 1 year UG SMG, 1 year UG SOM, 1 year UG SSH, 2 year UG SEDS, 2 year UG SMG, 2 year UG SOM, 2 year UG SSH, 3 year UG SEDS, 3 year UG SMG, 3 year UG SOM, 3 year UG SSH			
194	GER 102	Beginning German II	4	8	GER 101 Beginning German (3173) (C- and above)			2 year UG SSH World Languages, Literatures and Cultures, 3 year UG SSH World Languages, Literatures and Cultures	Undeclared SSH	SEDS, SMG, SSH, SoM	
195	KOR 102	Beginning Korean II	4	8	KOR 101 Beginning Korean I (4672) (C- and above)			2 year UG SSH World Languages, Literatures and Cultures, 3 year UG SSH World Languages, Literatures and Cultures	Undeclared SSH	SEDS, SMG, SSH, SoM	
196	KOR 202	Intermediate Korean II	4	8	KOR 201 Intermediate Korean I (5059) (C- and above)			World Languages, Literatures and Cultures		SEDS, SMG, SSH, SoM	
197	LING 130	Introduction to Language and Communication	3	6				1 year UG SSH, 5 year UG SEDS, 5 year UG SSH	2 year UG SSH	SEDS, SMG, SSH, SoM	
198	LING 131	Introduction to Linguistics	3	6				1 year UG SSH, 5 year UG SEDS, 5 year UG SSH	2 year UG SSH	SEDS, SMG, SSH, SoM	
199	LING 140	Language Variation and Change: the Story of English	3	6				1 year UG SSH, 5 year UG SEDS, 5 year UG SSH	2 year UG SSH	SEDS, SMG, SSH, SoM	
200	LING 272	Language and the Mind	3	6				World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
201	LING 273	Survey of Research Methods in Linguistics	3	6	LING 131 Introduction to Linguistics (1394) (C- and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	

202	LING 374	Language Contact in Central Asia	3	6	LING 131 Introduction to Linguistics (1394) (C- and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
203	LING 376	Psycholinguistics	3	6	LING 131 Introduction to Linguistics (1394) (C- and above) OR LING 272 Language and the Mind (1847) (C- and above) OR LING 273 Survey of Research Methods in Linguistics (2158) (C- and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
204	LING 472	Language Ideologies	3	6	LING 131 Introduction to Linguistics (1394) (C- and above)			World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
205	SPA 102	Beginning Spanish II	4	8	SPA 101 Beginning Spanish I (685) (C- and above)			2 year UG SSH World Languages, Literatures and Cultures, 3 year UG SSH World Languages, Literatures and Cultures, 5 year UG SEDS, 5 year UG SSH	Undeclared SSH	SEDS, SMG, SSH, SoM	
206	SPA 202	Intermediate Spanish II	4	8	SPA 201 Intermediate Spanish I (1475) (C- and above)			World Languages, Literatures and Cultures		SEDS, SMG, SSH, SoM	
207	SPA 311	Colloquial Spanish	3	6	SPA 202 Intermediate Spanish II (1842) (C and above)			World Languages, Literatures and Cultures		SEDS, SMG, SSH, SoM	
208	WLL 110	Introduction to Literary Studies	3	6				1 year UG SSH, 5 year UG SEDS, 5 year UG SSH	SSH	SEDS, SMG, SoM	
209	WLL 211	World Literature II: from the 18th to the 20th century	3	6				World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
210	WLL 218	Renaissance in Italy and Beyond	3	6				World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
211	WLL 240	Introduction to the Novel	3	6				World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
212	WLL 257	Fan Culture in the Age of Convergence	3	6				SEDS, SMG, SSH, SoM			
213	WLL 442	Contemporary Russian and Russophone Literature	3	6	Subject "WLL" BETWEEN 100 and 199			Sociology, World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
214	WLL 499	Languages, Linguistics, and Literatures Capstone II	3	6	WLL 498 Languages, Linguistics, and Literatures Capstone I (3048) (C- and above)			World Languages, Literatures and Cultures			

Languages, Literature and Linguistics, Sociology and Anthropology

215	ANT 385/WLL 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)			Sociology, World Languages, Literatures and Cultures	SSH	SEDS, SMG, SoM	
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Mathematics

216	MATH 109	Mathematical Discovery	3	6			MATH 161 Calculus I (118) (C- and above)	5 year UG SSH, Anthropology, History, Political Science and International Relations, Sociology, Undeclared SSH, World Languages, Literatures and Cultures			
217	MATH 161	Calculus I	4	8				1 year UG SEDS, 1 year UG SMG, 1 year UG SSH Biological Sciences, 1 year UG SSH Chemistry, 1 year UG SSH Mathematics, 1 year UG SSH Physics, 5 year UG SEDS, 5 year UG SSH, Medical Sciences	1 year UG SSH Undeclared, Biological Sciences, Chemistry, Mathematics, Physics, SEDS, SMG	SSH, SoM	
218	MATH 162	Calculus II	4	8	MATH 161 Calculus I (118) (C and above)			1 year UG SEDS, 1 year UG SMG, 1 year UG SSH Biological Sciences, 1 year UG SSH Chemistry, 1 year UG SSH Mathematics, 1 year UG SSH Physics, 5 year UG SEDS, 5 year UG SSH, Medical Sciences	Biological Sciences, Chemistry, Mathematics, Physics, SEDS, SMG	SSH, SoM	
219	MATH 251	Discrete Mathematics	3	6	MATH 161 Calculus I (118) (C and above)			5 year UG SEDS, 5 year UG SSH, Mathematics	Computer Science	SEDS, SMG, SSH, SoM	
220	MATH 263	Calculus III	4	8	MATH 162 Calculus II (170) (C and above)			5 year UG SEDS, 5 year UG SSH, Mathematics, Physics	SEDS, SMG, SSH, SoM		

221	MATH 273	Linear Algebra with Applications	4	8	MATH 161 Calculus I (118) (C and above)	MATH 162 Calculus II (170) (C and above)		2 year UG SEDS Computer Science, 2 year UG SEDS Robotics and Mechatronics, 2 year UG SSH Undeclared, 5 year UG SEDS, 5 year UG SSH, Mathematics, Physics	Computer Science, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
222	MATH 274	Introduction to Differential Equations	3	6	MATH 162 Calculus II (170) (C and above)			2 year UG SEDS Robotics and Mechatronics, 2 year UG SSH Chemistry, 2 year UG SSH Mathematics, 2 year UG SSH Undeclared, 5 year UG SEDS, 5 year UG SSH	Chemistry, Mathematics, Physics, Robotics and Mechatronics	SEDS, SMG, SSH, SoM	
223	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	SEDS, SMG, SSH, SoM		
224	MATH 302	Abstract Algebra I	3	6	MATH 273 Linear Algebra with Applications (84) (C and above) AND MATH 251 Discrete Mathematics (85) (C and above)			Mathematics	SEDS, SMG, SSH, SoM		
225	MATH 310	Applied Statistical Methods	3	6	MATH 161 Calculus I (118) (C and above)		MATH 321 Probability (482) (C and above)	2 year UG SMG Mining Engineering, 2 year UG SSH Biological Sciences, 2 year UG SSH Undeclared, 5 year UG SEDS, 5 year UG SSH	Biological Sciences, Mining Engineering	SEDS, SMG, SSH, SoM	
226	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	
227	MATH 322	Mathematical Statistics	3	6	MATH 321 Probability (482) (C and above) OR ECON 211 Economic Statistics (2280) (C and above)			Mathematics	SEDS, SMG, SSH, SoM		

228	MATH 323	Actuarial Mathematics I	3	6	MATH 321 Probability (482) (C and above) OR ECON 211 Economic Statistics (2280) (C and above) OR (MATH 162 Calculus II (170) (C and above) AND MATH 310 Applied Statistical Methods (82) (C and above))			Mathematics	SEDS, SMG, SSH, SoM		
229	MATH 350	Research Methods	3	6	MATH 321 Probability (482) (C and above)			3 year UG SSH Mathematics, 4 year UG SSH Mathematics			
230	MATH 351	Numerical Methods with Applications	3	6	MATH 274 Introduction to Differential Equations (484) (C and above) AND MATH 263 Calculus III (81) (C and above)		ENG 202 Numerical Methods in Engineering (5506) (C and above)	Mathematics	SEDS, SMG, SSH, SoM		
231	MATH 361	Real Analysis I	3	6	MATH 263 Calculus III (81) (C and above) AND MATH 251 Discrete Mathematics (85) (C and above)			Mathematics	SEDS, SMG, SSH, SoM		
232	MATH 407	Graph Theory	3	6	(MATH 301 Introduction to Number Theory (613) (C and above) OR MATH 251 Discrete Mathematics (85) (C and above)) AND MATH 273 Linear Algebra with Applications (84) (C and above)			Mathematics	SEDS, SMG, SSH, SoM		
233	MATH 412	Nonlinear Optimization	3	6	MATH 273 Linear Algebra with Applications (84) (C and above) AND MATH 263 Calculus III (81) (C and above)			Mathematics	SEDS, SMG, SSH, SoM		
234	MATH 423	Actuarial Mathematics II	3	6	MATH 321 Probability (482) (C and above) OR ECON 211 Economic Statistics (2280) (C and above)			4 year UG SSH Mathematics	3 year UG SSH Mathematics, 4 year UG SSH Economics	SEDS, SMG, SSH, SoM	
235	MATH 424	Mathematical Finance	3	6	MATH 321 Probability (482) (C and above) OR ECON 211 Economic Statistics (2280) (C and above)			4 year UG SSH Mathematics	3 year UG SSH Mathematics, 4 year UG SSH Economics	SEDS, SMG, SSH, SoM	
236	MATH 449	Statistical Programming	3	6	MATH 322 Mathematical Statistics (1165) (C and above)			Mathematics	SEDS, SMG, SSH, SoM		

237	MATH 456	Introduction to Lie Groups and Representations	3	6	MATH 361 Real Analysis I (483) (C and above) AND MATH 273 Linear Algebra with Applications (84) (C and above) AND MATH 274 Introduction to Differential Equations (484) (C and above)			Mathematics	SEDS, SMG, SSH, SoM		
238	MATH 462	Advanced Linear Algebra	3	6	MATH 251 Discrete Mathematics (85) (C and above) AND MATH 273 Linear Algebra with Applications (84) (C and above)			Mathematics	SEDS, SMG, SSH, SoM		
239	MATH 482	Fourier Analysis	3	6	MATH 263 Calculus III (81) (C and above) AND MATH 274 Introduction to Differential Equations (484) (C and above)			Mathematics	SEDS, SMG, SSH, SoM		
240	MATH 490	Special Topics in Mathematics I	3	6				Mathematics	SEDS, SMG, SSH, SoM		
241	MATH 491	Special Topics in Mathematics II	3	6				Instructor's Permission Required. Registration through Add Course form only!			
242	MATH 492	Special Topics in Mathematics III	3	6				Instructor's Permission Required. Registration through Add Course form only!			
243	MATH 499	Capstone Project	3	6				Instructor's Permission Required. Registration through Add Course form only!			
Physics											
244	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		
245	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		

246	PHYS 202	Introductory Astrophysics	3	6	PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above)			SSH	SEDS, SMG, SoM		
247	PHYS 222	Classical Mechanics II	3	6	PHYS 221 Classical Mechanics I (652) (C- and above)	MATH 274 Introduction to Differential Equations (484) (D and above)		Physics	SSH	SEDS, SMG, SoM	
248	PHYS 270	Computational Physics with Laboratory	3	6	(CSCI 150 Fundamentals of Programming (1501) (C- and above) OR CSCI 151 Programming for Scientists and Engineers (192) (C- and above)) AND MATH 263 Calculus III (81) (C- and above) AND (PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above) OR PHYS 172 Physics II for Physics Majors with Laboratory (1402) (C- and above))	MATH 273 Linear Algebra with Applications (84) (D and above)		Physics	SSH	SEDS, SMG, SoM	
249	PHYS 280	Thermodynamics and Statistical Physics	3	6	MATH 263 Calculus III (81) (C- and above) AND (PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above) OR PHYS 172 Physics II for Physics Majors with Laboratory (1402) (C- and above))			Physics	SSH	SEDS, SMG, SoM	
250	PHYS 362	Classical Electrodynamics II	3	6	PHYS 361 Classical Electrodynamics I (651) (C- and above)			Physics	SSH	SEDS, SMG, SoM	
251	PHYS 370	Optics with Laboratory	4	8	PHYS 361 Classical Electrodynamics I (651) (C- and above)			Physics	SSH	SEDS, SMG, SoM	
252	PHYS 451	Quantum Mechanics I	3	6	PHYS 221 Classical Mechanics I (652) (C- and above) AND PHYS 361 Classical Electrodynamics I (651) (C- and above)			Physics	SSH	SEDS, SMG, SoM	

253	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	SSH	SEDS, SMG, SoM	
254	PHYS 465	Advanced Experimental Physics	3	6	PHYS 370 Optics with Laboratory (1405) (C- and above)			Physics	SSH	SEDS, SMG, SoM	
255	PHYS 470	Introduction to Optoelectronics	4	8	PHYS 261 Modern Physics with laboratory (125) (C- and above) OR PHYS 473 Introduction to Solid State Physics (1423) (C- and above) OR CHEM 331 Physical Chemistry I (634) (C- and above) OR MAE 301 Engineering Thermodynamics (5927) (C- and above) OR CHME 201 Chemical Engineering Thermodynamics (5007) (C- and above) OR ELCE 204 Solid State Devices (5508) (C- and above)			Physics	SSH	SEDS, SMG, SoM	
256	PHYS 483	Statistical Mechanics	3	6	PHYS 280 Thermodynamics and Statistical Physics (1179) (C- and above)			Physics	SSH	SEDS, SMG, SoM	
257	PHYS 499	Honors Thesis	3	6				Instructor's Permission Required. Registration through Add Course form only!			
Political Science and International Relations											
258	PLS 101	Introduction to Political Science	3	6				5 year UG SSH, SEDS, SMG, SoM	Biological Sciences, Chemistry, Mathematics, Physics	SSH	
259	PLS 102	The Political Challenges of Technologies and Science: An Introduction	3	6				5 year UG SSH, SEDS, SMG, SoM	Biological Sciences, Chemistry, Mathematics, Physics	SSH	
260	PLS 120	Introduction to Political Theory	3	6				5 year UG SEDS, 5 year UG SSH, Undeclared SSH	Political Science and International Relations	SEDS, SMG, SSH, SoM	

261	PLS 140	Introduction to Comparative Politics	3	6				5 year UG SEDS, 5 year UG SSH, Undeclared SSH	Political Science and International Relations	SEDS, SMG, SSH, SoM	
262	PLS 150	Introduction to International Relations	3	6				5 year UG SEDS, 5 year UG SSH, Undeclared SSH	Political Science and International Relations	SEDS, SMG, SSH, SoM	
263	PLS 210	Political Science Research Methods	3	6				5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
264	PLS 315	Political Game Theory	3	6	PLS 211 Quantitative Methods (221) (C- and above) OR ECON 101 Introduction to Microeconomics (379) (C and above)			5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
265	PLS 329	Anarchy	3	6	PLS 120 Introduction to Political Theory (512) (C- and above)			5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
266	PLS 331	Nationalism and Multi-Ethnic Governance	3	6	PLS 210 Political Science Research Methods (129) (C- and above) AND PLS 140 Introduction to Comparative Politics (223) (C- and above)			5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
267	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)			5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
268	PLS 340	Politics of East Asia	3	6	PLS 210 Political Science Research Methods (129) (C- and above)			3 year UG SSH Political Sciences and International Relations			
269	PLS 341	Politics of Development	3	6	PLS 210 Political Science Research Methods (129) (C- and above)			5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
270	PLS 352	International Relations Theory	3	6	PLS 150 Introduction to International Relations (511) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above)			5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
271	PLS 355	European Union: Institutions and Policies	3	6	PLS 210 Political Science Research Methods (129) (C- and above)			5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		

272	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)			5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
273	PLS 360	Foreign Policy Analysis	3	6	PLS 150 Introduction to International Relations (511) (C- and above) AND PLS 211 Quantitative Methods (221) (C- and above)			5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
274	PLS 361	Memory Politics in East Asia	3	6				5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
275	PLS 391	Intermediate Special Topics in Comparative Politics	3	6	PLS 210 Political Science Research Methods (129) (C- and above)			5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
276	PLS 392	Politics of China	3	6	PLS 210 Political Science Research Methods (129) (C- and above)			5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
277	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!			
278	PLS 426	Hannah Arendt on Power, Violence, and Revolution	3	6	PLS 120 Introduction to Political Theory (512) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above)			5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
279	PLS 431	Politics and Governance of the Russian Federation	3	6	PLS 210 Political Science Research Methods (129) (C- and above)			5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
280	PLS 445	Political Violence	3	6	(PLS 140 Introduction to Comparative Politics (223) (C- and above) OR PLS 150 Introduction to International Relations (511) (C- and above)) AND PLS 210 Political Science Research Methods (129) (C- and above)			5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		

281	PLS 446	The Politics of Immigration Control	3	6	PLS 140 Introduction to Comparative Politics (223) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above)			5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
282	PLS 451	Advanced Topics in International Relations	3	6	PLS 150 Introduction to International Relations (511) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above) AND PLS 211 Quantitative Methods (221) (C- and above)			5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
283	PLS 460	Environmental Politics	3	6				5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
284	PLS 465	Politics of International Finance	3	6	PLS 150 Introduction to International Relations (511) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above)			5 year UG SSH, Political Science and International Relations	SEDS, SMG, SSH, SoM		
285	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!			
SSH											
286	SSH 300	School of Sciences and Humanities Internship	3	6				Instructor's Permission Required. Registration through Add Course form only!			
287	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											
288	ANT 110	Introduction to Sociocultural Anthropology	3	6				5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), Anthropology, Sociology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	2 year UG SSH	SEDS, SMG, SSH, SoM	

289	ANT 160	Introduction to Biological Anthropology	3	6			ANT 361 Human Evolution: Bones, Stones and Genomes (160) (C- and above)	5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), Anthropology, Sociology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	2 year UG SSH	SEDS, SMG, SSH, SoM	
290	ANT 231	Frauds and Fallacies in Archaeology	3	6				5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), Anthropology, Sociology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	2 year UG SSH	SEDS, SMG, SSH, SoM	
291	ANT 314	Politics of Identity in Eurasia	3	6	Subject "HST" BETWEEN 100 and 499 OR Subject "SOC" BETWEEN 100 and 499 OR Subject "ANT" BETWEEN 100 and 499 OR Subject "PLS" BETWEEN 100 and 499 OR Subject "SOC" BETWEEN 100 and 499 OR Subject "ANT" BETWEEN 100 and 499			Anthropology, Sociology	SSH	SEDS, SMG, SoM	
292	ANT 331	Archaeology of Power and Inequality	3	6				Anthropology, Sociology	SSH	SEDS, SMG, SoM	
293	ANT 361	Human Evolution: Bones, Stones and Genomes	3	6				Anthropology, Sociology	SSH	SEDS, SMG, SoM	
294	ANT 400	Research Assistance in Anthropology	1	2				Instructor's Permission Required. Registration through Add Course form only!			
295	ANT 420	Materiality and Eurasian Society	3	6	Subject "ANT" BETWEEN 200 and 399 OR Subject "ANT" BETWEEN 200 and 399 OR Subject "SOC" BETWEEN 200 and 399 OR Subject "SOC" BETWEEN 200 and 399			Anthropology, Sociology	SSH	SEDS, SMG, SoM	
296	ANT 499	Capstone Seminar II	3	6	ANT 498 Capstone Seminar I (2965) (C- and above)				SSH		

297	SOC 101	Introduction to Sociology	3	6				5 year UG SEDS, 5 year UG SSH, Anthropology, SoM, Sociology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	1 year UG SSH, 2 year UG SSH, 3 year UG SSH Biological Sciences	SEDS, SMG, SSH	
298	SOC 115	Global Social Problems	3	6				5 year UG SEDS, 5 year UG SSH, Anthropology, Sociology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	1 year UG SSH, 2 year UG SSH, 3 year UG SSH	SEDS, SMG, SSH, SoM	
299	SOC 203	Quantitative Methods in Sociology	3	6				5 year UG SEDS, 5 year UG SSH, Anthropology, Sociology	SSH	SEDS, SMG, SoM	
300	SOC 215	Sociology of Race and Ethnicity	3	6				5 year UG SEDS, 5 year UG SSH, Anthropology, Sociology	SSH	SEDS, SMG, SoM	
301	SOC 221	International Migration	3	6				5 year UG SEDS, 5 year UG SSH, Anthropology, Sociology	SSH	SEDS, SMG, SoM	
302	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)			5 year UG SEDS, 5 year UG SSH, Anthropology, Sociology	SSH	SEDS, SMG, SoM	
303	SOC 320	Organized Crime and Corruption	3	6	SOC 101 Introduction to Sociology (508) (C- and above)			5 year UG SEDS, 5 year UG SSH, Anthropology, Sociology	SSH	SEDS, SMG, SoM	
304	SOC 325	COVID-19: The sociocultural aspects of a pandemic	3	6	SOC 101 Introduction to Sociology (508) (C- and above)			5 year UG SEDS, 5 year UG SSH, Anthropology, Sociology	SSH	SEDS, SMG, SoM	
305	SOC 400	Research Assistance in Sociology	1	2				Instructor's Permission Required. Registration through Add Course form only!			
306	SOC 401	Research Assistance in Sociology	1	2				Instructor's Permission Required. Registration through Add Course form only!			
307	SOC 415	Social Problems and Issues in Eurasia	3	6				5 year UG SEDS, 5 year UG SSH, Anthropology, Sociology	SSH	SEDS, SMG, SoM	

308	SOC 499	Capstone Seminar II	3	6	SOC 498 Capstone Seminar Part I (3043) (C- and above)			SSH			
Sociology and Anthropology, Sociology and Anthropology											
309	ANT 216/SOC 216	Marriage and Kinship	3	6				5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), Anthropology, Sociology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	2 year UG SSH	SEDS, SMG, SSH, SoM	
310	SOC 212/ANT 285	Food and Society	3	6				5 year UG SEDS, 5 year UG SEDS (pending graduation), 5 year UG SSH, 5 year UG SSH (pending graduation), Anthropology, Sociology, Undeclared SEDS, Undeclared SMG, Undeclared SSH	2 year UG SSH	SEDS, SMG, SSH, SoM	
SEDS											
Chemical and Materials Engineering											
311	CHME 202	Fluid Mechanics	3	6				2 year UG SEDS Chemical and Materials Engineering	3 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering		
312	CHME 203	Organic and Polymer Chemistry	3	6	CHME 222 Inorganic and Analytical Chemistry (5039) (D and above)			2 year UG SEDS Chemical and Materials Engineering	3 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering		

313	CHME 303	Separation Processes	3	6	CHME 200 Basic Principles and Calculations in Chemical Engineering (5038) (D and above) AND CHME 201 Chemical Engineering Thermodynamics (5007) (D and above)			3 year UG SEDS Chemical and Materials Engineering	4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering		
314	CHME 304	Chemical Reaction Engineering	3	6	CHME 200 Basic Principles and Calculations in Chemical Engineering (5038) (D and above)			3 year UG SEDS Chemical and Materials Engineering	4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering		
315	CHME 305L	Chemical Engineering Laboratory I	3	6	CHME 201 Chemical Engineering Thermodynamics (5007) (D and above) AND CHME 202 Fluid Mechanics (5543) (D and above) AND CHME 300 Heat and Mass Transfer (5952) (D and above)			3 year UG SEDS Chemical and Materials Engineering	4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering		
316	CHME 352	Research Practice	3	6				3 year UG SEDS Chemical and Materials Engineering	4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering		
317	CHME 402	Materials Chemistry	3	6				4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering			
318	CHME 403	Chemical Process Control and Safety	3	6				4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering			
319	CHME 421	Tissue Engineering	3	6				4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering			

320	CHME 454	Transport Phenomena and Operations	3	6				4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering	4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering		
321	CHME 459	Biomechanics	3	6				4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering	4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering		
322	CHME 461	Powder technology	3	6				4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering			
323	CHME 464	Directed Study	4	8				4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering			
324	CHME 485	Introduction to Biochemical Engineering	3	6				4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering			
325	ECHE 479	Capstone Project II	9	18	ECHE 418 Capstone project 1 (1278) (D and above)			Instructor's Permission Required. Registration through Add Course form only!			
Civil and Environmental Engineering											
326	CEE 202	Environmental Engineering	3	6	CEE 201 Environmental Chemistry (4999) (D and above)			2 year UG SEDS Civil and Environmental Engineering	3 year UG SEDS Civil Engineering, 3 year UG SEDS Civil and Environmental Engineering, 4 year UG SEDS Civil Engineering, 4 year UG SEDS Civil and Environmental Engineering		

327	CEE 203	Structural Analysis	3	6	MAE 200 Structural Mechanics I (5010) (D and above) OR CEE 200 Structural Mechanics I (5005) (D and above)			2 year UG SEDS Civil and Environmental Engineering	3 year UG SEDS Civil Engineering, 3 year UG SEDS Civil and Environmental Engineering, 4 year UG SEDS Civil Engineering, 4 year UG SEDS Civil and Environmental Engineering		
328	CEE 301	Structural Design - Steel	3	6	CEE 203 Structural Analysis (5500) (D and above)			3 year UG SEDS Civil and Environmental Engineering	4 year UG SEDS Civil Engineering, 4 year UG SEDS Civil and Environmental Engineering		
329	CEE 303	Geotechnical Design	3	6	CEE 302 Geotechnical Engineering (5896) (D and above)			3 year UG SEDS Civil and Environmental Engineering	4 year UG SEDS Civil Engineering, 4 year UG SEDS Civil and Environmental Engineering		
330	CEE 305	Hydraulics and Hydrology	3	6	MAE 300 Fluid Mechanics I (5926) (D and above) OR EME 275 Fluid Mechanics I (1988) (D and above) OR CEE 304 Fluid Mechanics (6348) (D and above)			3 year UG SEDS Civil and Environmental Engineering	4 year UG SEDS Civil Engineering, 4 year UG SEDS Civil and Environmental Engineering		
331	CEE 350	Water and Wastewater Treatment Processes	3	6	CEE 201 Environmental Chemistry (4999) (D and above) AND CEE 202 Environmental Engineering (5499) (D and above)			3 year UG SEDS Civil and Environmental Engineering	4 year UG SEDS Civil Engineering, 4 year UG SEDS Civil and Environmental Engineering		
332	CEE 352	Engineering geology	3	6				3 year UG SEDS Civil and Environmental Engineering	4 year UG SEDS Civil Engineering, 4 year UG SEDS Civil and Environmental Engineering		
333	CEE 400	Transportation Engineering	3	6	CEE 204 Civil Engineering CAD and Surveying (5002) (D and above)			4 year UG SEDS Civil Engineering, 4 year UG SEDS Civil and Environmental Engineering	3 year UG SEDS Civil and Environmental Engineering		

334	CEE 454	Foundation Engineering	3	6	ECE 306 Geotechnical Design (1043) (D and above) OR CEE 303 Geotechnical Design (6158) (D and above)			4 year UG SEDS Civil Engineering, 4 year UG SEDS Civil and Environmental Engineering	3 year UG SEDS Civil and Environmental Engineering		
335	CEE 457	Air Quality Management	3	6				4 year UG SEDS Civil Engineering, 4 year UG SEDS Civil and Environmental Engineering	3 year UG SEDS Civil and Environmental Engineering		
336	CEE 463	Individual Research Project in Civil & Environmental Engineering 1	3	6				4 year UG SEDS Civil Engineering, 4 year UG SEDS Civil and Environmental Engineering	3 year UG SEDS Civil and Environmental Engineering		
337	CEE 466	Introduction to Finite Element Methods	3	6	CEE 200 Structural Mechanics I (5005) (D and above)			4 year UG SEDS Civil Engineering, 4 year UG SEDS Civil and Environmental Engineering	3 year UG SEDS Civil and Environmental Engineering		
Computer Science											
338	CSCI 111	Web Programming and Problem Solving	3	6			CSCI 101 Introduction to Computational Sciences (147) (D and above) OR CSCI 115 Programming Fundamentals (5257) (D and above) OR CSCI 151 Programming for Scientists and Engineers (192) (D and above) OR ENG 101 Programming for Engineers (4517) (D and above)	SSH, SoM			

339	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		
340	CSCI 151	Programming for Scientists and Engineers	4	8			CSCI 111 Web Programming and Problem Solving (110) (D and above) OR CSCI 115 Programming Fundamentals (5257) (D and above) OR ENG 101 Programming for Engineers (4517) (B- and above)	Computer Science, Robotics and Mechatronics	Physics, Undeclared SEDS	SEDS, SMG, SSH, SoM	
341	CSCI 152	Performance and Data Structures	4	8	CSCI 151 Programming for Scientists and Engineers (192) (C- and above) OR ENG 101 Programming for Engineers (4517) (B- and above)			Computer Science, Robotics and Mechatronics	SSH, Undeclared SEDS	SEDS, SMG, SoM	
342	CSCI 245	System Analysis and Design	3	6	CSCI 152 Performance and Data Structures (489) (C- and above)			Computer Science	SEDS	SMG, SSH, SoM	
343	CSCI 270	Algorithms	3	6	CSCI 152 Performance and Data Structures (489) (C- and above)	MATH 251 Discrete Mathematics (85) (D and above)		Computer Science	SEDS	SMG, SSH, SoM	

344	CSCI 272	Formal Languages	3	6	CSCI 151 Programming for Scientists and Engineers (192) (C- and above) OR ENG 101 Programming for Engineers (4517) (B- and above)	MATH 251 Discrete Mathematics (85) (D and above)		Computer Science	SEDS	SMG, SSH, SoM
345	CSCI 299	Internship I	3	6				Instructor's Permission Required. Registration through Add Course form only!		
346	CSCI 307	Research Methods	3	6				3 year UG SEDS Computer Science, 4 year UG SEDS Computer Science, 5 year UG SEDS		
347	CSCI 325	Introduction to Parallel Systems and Graphics Processing Unit Programming	3	6	CSCI 332 Operating Systems (490) (C- and above)			Computer Science	SEDS	SMG, SSH, SoM
348	CSCI 332	Operating Systems	3	6	CSCI 231 Computer Systems and Organization (194) (C- and above)			5 year UG SEDS, Computer Science	SEDS	SMG, SSH, SoM
349	CSCI 333	Computer Networks	3	6	CSCI 152 Performance and Data Structures (489) (C- and above)			5 year UG SEDS, Computer Science	SEDS	SMG, SSH, SoM
350	CSCI 399	Internship II	3	6				Instructor's Permission Required. Registration through Add Course form only!		
351	CSCI 409	Senior Project II	3	6	CSCI 408 Senior Project I (1481) (C- and above)			4 year UG SEDS Computer Science		
352	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)			Computer Science	SEDS	SMG, SSH, SoM
353	CSCI 462	Open Source Software	3	6	CSCI 361 Software Engineering (640) (C- and above)			Computer Science	SEDS	SMG, SSH, SoM
354	CSCI 490	Brain Computer Interface	3	6	MATH 273 Linear Algebra with Applications (84) (C and above) AND MATH 321 Probability (482) (C and above)			Computer Science	SEDS	SMG, SSH, SoM

Electrical and Computer Engineering

355	ELCE 201	Circuit Theory	3	6	ELCE 200 Introduction to Electrical Circuits (4991) (C- and above)			2 year UG SEDS Electrical and Computer Engineering	3 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Electronic Engineering		
356	ELCE 201L	Circuit Theory Laboratory	1	2		ELCE 201 Circuit Theory (5507) (D and above)		2 year UG SEDS Electrical and Computer Engineering	3 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Electronic Engineering		
357	ELCE 202	Digital Logic Design	3	6	MATH 162 Calculus II (170) (C- and above) AND PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above) AND ENG 101 Programming for Engineers (4517) (C- and above)			2 year UG SEDS Electrical and Computer Engineering	3 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Electronic Engineering		
358	ELCE 202L	Digital Logic Design Laboratory	1	2		ELCE 202 Digital Logic Design (4992) (D and above)		2 year UG SEDS Electrical and Computer Engineering	3 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Electronic Engineering		

359	ELCE 300	Microprocessor Systems	3	6	ELCE 202 Digital Logic Design (4992) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Electronic Engineering		
360	ELCE 300L	Microprocessor Systems Laboratory	1	2		ELCE 300 Microprocessor Systems (6183) (C- and above)		3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Electronic Engineering		
361	ELCE 302	Electric Machines	3	6	ELCE 201 Circuit Theory (5507) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Electronic Engineering		
362	ELCE 302L	Electrical Machines Laboratory	1	2	ELCE 201 Circuit Theory (5507) (C- and above)	ELCE 302 Electric Machines (5919) (C- and above)		3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Electronic Engineering		
363	ELCE 303	Power System Analysis	3	6	ELCE 200 Introduction to Electrical Circuits (4991) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Electronic Engineering		
364	ELCE 305	Data Structures and Algorithms	3	6	CSCI 151 Programming for Scientists and Engineers (192) (C- and above) OR ENG 101 Programming for Engineers (4517) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Electronic Engineering		

365	ELCE 308	Communication Systems	3	6	ELCE 203 Signals and Systems (4993) (C- and above)			3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Electronic Engineering		
366	ELCE 309	Individual Study	3	6				3 year UG SEDS Electrical and Computer Engineering	4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Electronic Engineering		
367	ELCE 310L	Electronics Instrumentation and Measurement	1	2	ELCE 201 Circuit Theory (5507) (C- and above)	ELCE 301 Electronic Circuits (5918) (C- and above)		3 year UG SEDS Electrical and Computer Engineering			
368	ELCE 458	Numerical Optimization Techniques and Computer Applications	3	6	ENG 200 Engineering Mathematics III (Differential Equations and Linear Algebra) (5009) (C- and above)			4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Electronic Engineering	3 year UG SEDS Electrical and Computer Engineering		
369	ELCE 459	Design of Application Specific Electronic Circuits	3	6	ELCE 301 Electronic Circuits (5918) (C- and above)			4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Electronic Engineering	3 year UG SEDS Electrical and Computer Engineering		
370	ELCE 460	Introduction to Computer Architecture	3	6	ELCE 300 Microprocessor Systems (6183) (C- and above)			4 year UG SEDS Electrical and Computer Engineering			
371	ELCE 486	Photonics for Engineering	3	6	MATH 162 Calculus II (170) (C- and above) AND PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above)			4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Electronic Engineering	3 year UG SEDS Electrical and Computer Engineering		

Mechanical and Aerospace Engineering

372	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)	SEDS, SMG			
373	ENG 102	Engineering Materials I	3	6				1 year UG SEDS Civil and Environmental Engineering, 1 year UG SEDS Mechanical and Aerospace Engineering, 1 year UG SEDS Undeclared	Civil and Environmental Engineering, Mechanical and Aerospace Engineering		
374	ENG 103	Engineering Materials II	3	6				1 year UG SEDS Chemical and Materials Engineering, 1 year UG SEDS Electrical and Computer Engineering, Undeclared SEDS	Chemical and Materials Engineering, Electrical and Computer Engineering		
375	ENG 201	Applied Probability and Statistics	3	6	MATH 162 Calculus II (170) (C- and above)			2 year UG SEDS Chemical and Materials Engineering, 2 year UG SEDS Civil and Environmental Engineering, 2 year UG SEDS Electrical and Computer Engineering, 2 year UG SEDS Mechanical and Aerospace Engineering		SEDS	

376	ENG 202	Numerical Methods in Engineering	3	6	ENG 200 Engineering Mathematics III (Differential Equations and Linear Algebra) (5009) (D and above)			2 year UG SEDS Chemical and Materials Engineering, 2 year UG SEDS Civil and Environmental Engineering, 2 year UG SEDS Mechanical and Aerospace Engineering		SEDS	
377	ENG 400	Capstone Project	3	6				4 year UG SEDS Chemical Engineering, 4 year UG SEDS Chemical and Materials Engineering, 4 year UG SEDS Civil Engineering, 4 year UG SEDS Civil and Environmental Engineering, 4 year UG SEDS Electrical and Computer Engineering, 4 year UG SEDS Electrical and Electronic Engineering, 4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering, 5 year UG SEDS			
378	MAE 205	Material and Manufacturing I	3	6				2 year UG SEDS Mechanical and Aerospace Engineering	3 year UG SEDS Mechanical and Aerospace Engineering, 4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering		
379	MAE 206	Engineering Dynamics I	3	6				2 year UG SEDS Mechanical and Aerospace Engineering	3 year UG SEDS Mechanical and Aerospace Engineering, 4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering		

380	MAE 305	Fluid Mechanics II	3	6	MAE 300 Fluid Mechanics I (5926) (D and above) OR EME 275 Fluid Mechanics I (1988) (D and above)			3 year UG SEDS Mechanical and Aerospace Engineering	4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering		
381	MAE 306	Computer Aided Engineering	3	6	ENG 202 Numerical Methods in Engineering (5506) (D and above) AND MAE 201 Computer Aided Design (5011) (D and above)			3 year UG SEDS Mechanical and Aerospace Engineering	4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering		
382	MAE 307	Engineering Dynamics II	3	6	MAE 206 Engineering Dynamics I (5535) (D and above)			3 year UG SEDS Mechanical and Aerospace Engineering	4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering		
383	MAE 350	Structural Mechanics II	3	6	MAE 200 Structural Mechanics I (5010) (D and above) OR CEE 200 Structural Mechanics I (5005) (D and above)			3 year UG SEDS Mechanical and Aerospace Engineering	4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering		
384	MAE 351	Vehicle Propulsion Systems	3	6	MAE 301 Engineering Thermodynamics (5927) (D and above) OR BENG 226 Engineering Thermodynamics (1553) (D and above)			3 year UG SEDS Mechanical and Aerospace Engineering	4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering		
385	MAE 454	Aerodynamics	3	6	MAE 300 Fluid Mechanics I (5926) (D and above)			4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering	Mechanical and Aerospace Engineering		
386	MAE 455	Flight Performance and Mechanics	3	6	MAE 454 Aerodynamics (6576) (D and above) OR MAE 305 Fluid Mechanics II (6173) (D and above)			4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering	Mechanical and Aerospace Engineering		

387	MAE 456	Materials and Manufacturing II	3	6				4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering	3 year UG SEDS Mechanical and Aerospace Engineering		
388	MAE 460	Advanced Topics in Computational Fluid Dynamics	3	6	MAE 300 Fluid Mechanics I (5926) (D and above) AND ENG 202 Numerical Methods in Engineering (5506) (D and above)			4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering	3 year UG SEDS Mechanical and Aerospace Engineering		
389	MAE 463	Micro-Electro-Mechanical Systems and Microsystems technology	3	6				4 year UG SEDS Mechanical Engineering, 4 year UG SEDS Mechanical and Aerospace Engineering	3 year UG SEDS Mechanical and Aerospace Engineering		
390	MAE 464	Mechanics of Soft Materials	3	6	ENG 102 Engineering Materials I (4708) (D and above)			Mechanical and Aerospace Engineering			
Robotics and Mechatronics											
391	ROBT 202	System Dynamics and Modeling	3	6	MATH 162 Calculus II (170) (C- and above) AND (PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above) OR PHYS 172 Physics II for Physics Majors with Laboratory (1402) (C- and above))			Robotics and Mechatronics	SEDS		
392	ROBT 204	Electrical and Electronic Circuits II with Lab	4	8	ROBT 203 Electrical and Electronic Circuits I with Lab (62) (C- and above)			Robotics and Mechatronics	SEDS		
393	ROBT 206	Microcontrollers with Lab	4	8	CSCI 150 Fundamentals of Programming (1501) (C and above) OR CSCI 151 Programming for Scientists and Engineers (192) (C and above) OR ENG 101 Programming for Engineers (4517) (C and above)			Computer Science, Robotics and Mechatronics	SEDS		
394	ROBT 304	Electromechanical Systems with lab	4	8	ROBT 204 Electrical and Electronic Circuits II with Lab (491) (C- and above)			Robotics and Mechatronics	SEDS		

395	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 and Mechatronics	SEDS		
396	ROBT 312	Robotics I: Kinematics and Dynamics	3	6	ROBT 201 Mechanics: Statics and Dynamics (475) (C and above) AND MATH 273 Linear Algebra with Applications (84) (C and above)			Robotics and Mechatronics	SEDS		
397	ROBT 402	Robotic/Mechatronic System Design	3	6	ROBT 204 Electrical and Electronic Circuits II with Lab (491) (C- and above) AND ROBT 206 Microcontrollers with Lab (476) (C- and above)			5 year UG SEDS, Robotics and Mechatronics	SEDS		
398	ROBT 407	Statistical Methods and Machine Learning	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 and Mechatronics	SEDS		
399	ROBT 491	Graduation Project	3	6				5 year UG SEDS, Robotics and Mechatronics	SEDS		