# Course Requirements and Registration Priorities
# Spring 2018

| # | Abbr | Title | Cr(US) | Cr(ECTS) | PreRequisite | CoRequisite | AntiRequisite | 1st priority registration | 2nd priority registration | 3rd priority registration | 4th priority registration |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **SHSS** | | | | | | | | | | | |
| **Economics** | | | | | | | | | | | |
| 1 | ECON 451 | Topics in Microeconomics | 3 | 6 | ECON 201 Intermediate Microeconomics (133) (C- and above) | | | Through Add form only | | | |
| **History, Philosophy and Religious Studies, Political Science and International Relations** | | | | | | | | | | | |
| 2 | PLS 328/REL 328 | Confucianism and the Development of Chinese Politics | 3 | 6 | | | | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |
| **Kazakh Language and Turkic Studies** | | | | | | | | | | | |
| 3 | KAZ 314 | Speech Culture in Business | 3 | 6 | KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced" | | | | | SEng, SHSS, SST | |
| 4 | KAZ 370 | Kazakh for Career Development | 3 | 6 | KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced" | | | | | SEng, SHSS, SST | |
| **CPS** | | | | | | | | | | | |
| **GSPP** | | | | | | | | | | | |
| 5 | ZEST 061 | Basic Economics and Statistics | 0 | 0 | | | | | | | |
| **Mathematics** | | | | | | | | | | | |
| 6 | MATH 500Z | Linear Algebra with Applications | 0 | 0 | | | | | | | |
| **NUFYP** | | | | | | | | | | | |
| 7 | FEAP 020 | Foundation English for Academic Purposes 2 | 0 | 0 | | | | | | | |
| 8 | FHUM 030 | Foundations of Humanities and Social Sciences 2 | 0 | 0 | | | | | | | |
| 9 | FMAT 020 | Foundation 'Statistics' | 0 | 0 | | | | | | | |
| 10 | FMAT 030 | Mathematics for Life Sciences (Biology And Chemistry) | 0 | 0 | | | | | | | |
| 11 | FMAT 040 | Mathematics for Physical Sciences | 0 | 0 | | | | | | | |
| 12 | FPHY 030 | Foundation 'Physics 2' | 0 | 0 | | | | | | | |
| 13 | FSCI 030 | Essential Biology and Chemistry 2 | 0 | 0 | | | | | | | |
| **NUZYP** | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 14 | ZCOM 041 | Academic Communications for Graduate Studies II | 0 | 0 | | | | | | | |
| 15 | ZRDG 031 | Academic Reading for Graduate Studies II | 0 | 0 | | | | | | | |
| 16 | ZWRT 021 | Academic Writing for Graduate Studies II | 0 | 0 | | | | | | | |
| **Sociology and Anthropology** | | | | | | | | | | | |
| 17 | SOC 201Z | Social Science Research Methods | 0 | 0 | | | | | | | |
| **GSB** | | | | | | | | | | | |
| **Economics** | | | | | | | | | | | |
| 18 | ECON 101 | Introduction to Microeconomics | 3 | 6 | | | | 1 year UG SHSS | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 19 | ECON 102 | Introduction to Macroeconomics | 3 | 6 | | | | 1 year UG SHSS | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 20 | 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 | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 21 | 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 | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 22 | 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 | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 23 | 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))) | | | 4 year UG SHSS | 3 year UG SHSS | SST | |

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| 24 | ECON 321 | Economic Growth | 3 | 6 | ECON 202 Intermediate Macroeconomics (207) (C- and above) | | | Economics | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 25 | ECON 341 | Economic Simulation Modeling | 3 | 6 | ECON 201 Intermediate Microeconomics (133) (C- and above) | | | Economics | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 26 | ECON 345 | The Economics of Family | 3 | 6 | ECON 201 Intermediate Microeconomics (133) (C- and above) | | | Economics | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 27 | ECON 413 | Econometrics II | 3 | 6 | ECON 301 Econometrics I (664) (C- and above) | | | Economics | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 28 | 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 | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 29 | ECON 521 | Microeconomic Theory II | 4 | 8 | ECON 501 Microeconomics (2187) (C- and above) AND ECON 512 Mathematical Economics (2154) (C- and above) | | | Economics, Eurasian Studies, Political Science and International Relations | | | |
| 30 | ECON 522 | Macroeconomics II | 4 | 8 | () ( and above) | | | Economics, Eurasian Studies, Political Science and International Relations | | | |
| 31 | ECON 524 | Research Methodology | 4 | 8 | ECON 501 Microeconomics (2187) (C- and above) AND ECON 502 Macroeconomics (2186) (C- and above) AND ECON 511 Mathematics and Statistics (2188) (C- and above) | ECON 531 Econometrics (2505) (D and above) | | Economics, Eurasian Studies, Political Science and International Relations | | | |
| 32 | ECON 528 | Wages and the Labor Market | 4 | 8 | ECON 521 Microeconomic Theory II (2506) (C- and above) AND ECON 531 Econometrics (2505) (C- and above) | | | Economics, Eurasian Studies, Political Science and International Relations | | | |
| 33 | ECON 531 | Econometrics | 4 | 8 | ECON 511 Mathematics and Statistics (2188) (C- and above) AND ECON 512 Mathematical Economics (2154) (C- and above) | | | Economics, Eurasian Studies, Political Science and International Relations | | | |
| 34 | ECON 590 | Thesis II | 8 | 16 | ECON 589 Thesis I (3714) (P) | | | | | | |
| **GSB** | | | | | | | | | | | |

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| 35 | GSBF 512 | Principles of Finance | 2 | 4 | | | | | | | |
| 36 | GSBF 514 | Corporate Finance | 2 | 4 | | | | | | | |
| 37 | GSBF 518 | Risk Management | 2 | 4 | | | | | | | |
| 38 | GSBF 519 | Financial Reporting and Analysis | 2 | 4 | | | | | | | |
| 39 | GSBF 521 | Ethics, Governance and Regulation | 2 | 4 | | | | | | | |
| 40 | GSBF 541 | Global Finance Experience Residency (I) | 2 | 4 | | | | | | | |
| 41 | MBA 10 | Foundations of Strategy | 2 | 4 | | | | | | | |
| 42 | MBA 13 | Macroeconomics | 2 | 4 | | | | | | | |
| 43 | MBA 14 | Decision Models | 2 | 4 | | | | | | | |
| 44 | MBA 15 | Corporate Finance | 2 | 4 | | | | | | | |
| 45 | MBA 17 | Negotiations | 2 | 4 | | | | | | | |
| 46 | MBAE 13 | Raising Capital | 3 | 6 | | | | | | | |
| 47 | MBAE 2 | Emerging Markets Strategy | 2 | 4 | | | | | | | |
| 48 | MSF 01 | Financial Modeling | 2 | 4 | | | | | | | |
| 49 | MSF 02 | Thesis Preparation Seminar | 2 | 4 | | | | | | | |
| **GSPP** | | | | | | | | | | | |
| **Master in Public Administration** | | | | | | | | | | | |
| 50 | MPA 608 | Strategic Management and Leadership | 4 | 8 | | | | | | | |
| 51 | MPA 610 | National Identity and Public Policy | 4 | 8 | | | | | GSPP | | |
| 52 | MPA 611 | Benefit Cost Analysis | 4 | 8 | | | | | GSPP | | |
| 53 | MPA 617 | Law, institutions and development | 4 | 8 | | | | | GSPP | | |
| 54 | MPA 624 | Public Management Reforms in Transitional Countries | 4 | 8 | | | | | GSPP | | |
| 55 | MPA 699 | Master's Project with Overseas Component | 0 | 0 | | | | | | | |
| 56 | MPP 623 | International Political Economy | 4 | 8 | | | | 2 year GSPP Public Policy | GSPP | | |
| 57 | MPP 627 | Environmental Economics and Public Policy | 4 | 8 | | | | 2 year GSPP Public Policy | GSPP | | |
| **Master in Public Policy** | | | | | | | | | | | |
| 58 | MPP 602 | Macroeconomics and Public Policy | 4 | 8 | | | | | | | |
| 59 | MPP 613 | Public Policy Research Design and Analysis | 4 | 8 | | | | | | | |
| 60 | MPP 628 | Economic Growth in Developing Asia | 4 | 8 | | | | 2 year GSPP Public Policy | GSPP | | |

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| 61 | MPP 641 | Public Management and Leadership | 4 | 8 | | | | | | | |
| 62 | MPP 685 | Urban Planning and Public Policy | 4 | 8 | | | | 2 year GSPP Public Policy | GSPP | | |
| 63 | MPP 699 | Policy Analysis Exercise with Singapore Component | 4 | 8 | MPP 601 Microeconomics and Public Policy (1449) (C- and above) AND MPP 611 Statistics for Public Policy (1450) (C- and above) AND MPP 613 Policy Research Design and Methods (1301) (C- and above) AND MPP 621 Public Policy and Analysis (1451) (C- and above) | | | | | | |
| **PhD in Public Policy** | | | | | | | | | | | |
| 64 | DPP 602 | Macroeconomics in Public Sector | 4 | 8 | | | | | | | |
| 65 | DPP 613 | Research Design (qualitative and quantitative) | 4 | 8 | | | | | | | |
| 66 | DPP 615 | Law and Public Policy | 4 | 8 | | | | | | | |
| 67 | DPP 631 | Politics of Public Policy | 4 | 8 | | | | | | | |
| **GSE** | | | | | | | | | | | |
| **MA in Multilingual Education** | | | | | | | | | | | |
| 68 | EDML 611 | Plurilingual Individual | 3 | 6 | | | | 1 year GSE MA in Multil.Education | | | |
| 69 | EDML 612 | Multilingual Society | 3 | 6 | | | | 1 year GSE MA in Multil.Education | | | |
| 70 | EDML 621 | Principles and Methods of Language Education in Multilingual Contexts | 3 | 6 | | | | 2 year GSE MA in Multil.Education | | | |
| 71 | EDML 691 | Thesis Research II | 6 | 12 | | | | | | | |
| **MSc Educational Leadership HE** | | | | | | | | | | | |
| 72 | EDHE 610 | Applying Educational Leadership in Kazakhstan | 3 | 6 | | | | | | | |
| 73 | EDHE 692 | Thesis Seminar III | 1.5 | 3 | | | | | | | |
| 74 | EDUC 504 | English for Thesis Writing II | 3 | 6 | | | | | | | |
| 75 | EDUC 506 | Academic English II | 1.5 | 3 | | | | 1 year GSE Educ.Leadership | | | |
| 76 | EDUC 508 | Academic English IV | 1.5 | 3 | | | | | | | |
| 77 | EDUC 511 | Advanced English for Education Professionals II | 3 | 6 | | | | 1 year GSE MA in Multil.Education | | | |

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| 78 | EDUC 572 | Kazakh for Professional Purposes | 3 | 6 | | | | 1 year GSE MA in Multil.Education, 1 year GSE PhD Education | | | |
| 79 | EDUC 573 | Academic Writing in Kazakh | 3 | 6 | | | | 1 year GSE Educ.Leadership, 1 year GSE MA in Multil.Education, 1 year GSE PhD Education | | | |
| 80 | EDUC 600 | Research Methods II | 3 | 6 | | | | 1 year GSE Educ.Leadership, 1 year GSE MA in Multil.Education | | | |
| 81 | EDUC 670 | Internship Project | 6 | 12 | | | | 1 year GSE Educ.Leadership | | | |
| 82 | EDUC 671 | Work-based project | 6 | 12 | | | | 1 year GSE Educ.Leadership | | | |
| 83 | EDUC 675 | Learning to Work | 4.5 | 9 | | | | | | | |
| 84 | EDUC 703 | Kazakh Language | 3 | 6 | | | | 1 year GSE PhD Education | | | |
| 85 | EDUC 704 | Advanced Methods of Education Research | 3 | 6 | | | | 1 year GSE PhD Education | | | |
| 86 | EDUC 705 | Advanced Methods of Education Research: Qualitative Methods | 3 | 6 | | | | 1 year GSE PhD Education | | | |
| 87 | EDUC 711 | Globalisation and Education | 3 | 6 | | | | 1 year GSE PhD Education | | | |
| 88 | EDUC 730 | Preparation for Proposal Defence I | 6 | 12 | | | | 1 year GSE PhD Education | | | |
| 89 | EDUC 740 | Doctoral Seminar | 3 | 6 | | | | | | | |
| 90 | EDUC 750 | Dissertation Research | 9 | 18 | | | | | | | |
| **MSc Educational Leadership IE** | | | | | | | | | | | |
| 91 | EDIE 610 | Applying Educational Leadership in Kazakhstan | 3 | 6 | | | | | | | |
| 92 | EDIE 692 | Thesis Seminar III | 1.5 | 3 | | | | | | | |
| **MSc Educational Leadership SE** | | | | | | | | | | | |
| 93 | EDSE 610 | Applying Educational Leadership in Kazakhstan | 3 | 6 | | | | | | | |
| 94 | EDSE 620 | Perspectives on Inclusive Education | 3 | 6 | | | | | | | |
| 95 | EDSE 692 | Thesis Seminar III | 1.5 | 3 | | | | | | | |
| **Other** | | | | | | | | | | | |

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| **Other** | | | | | | | | | | | |
| 96 | T-ELEG 3304 | Energy Systems | 4 | 8 | | | | | | | |
| 97 | T-MEEG 4104 | Machine Element Design | 3 | 6 | | | | | | | |
| 98 | T-PLSC 2003 | American National GOVT | 3 | 6 | | | | | | | |
| 99 | T-THTR 1683 | Acting I | 3 | 6 | | | | | | | |
| **SoM** | | | | | | | | | | | |
| **Biological Science** | | | | | | | | | | | |
| 100 | BIOL 101 | Biology for non-Science majors | 3 | 6 | | | BIOL 110 Modern Biology I (1070) (C- and above) | SHSS | | | |
| 101 | BIOL 110 | Modern Biology I with Lab | 4 | 8 | | | | Biological Sciences, Chemistry | SST | SHSS | |
| 102 | BIOL 120 | Modern Biology II with Lab | 4 | 8 | BIOL 110 Modern Biology I (1070) (C and above) | | | Biological Sciences, Chemistry | SST | SHSS | |
| 103 | BIOL 220 | Molecular Biology of Cell with Lab | 4 | 8 | BIOL 120 Modern Biology II (177) (C and above) OR BIOL 120 Modern Biology II Lab (1445) (C and above) OR BIOL 120L Modern Biology II Laboratory (5443) (C and above) | | | Biological Sciences | SST | SEng, SHSS | |
| 104 | BIOL 231 | Human Anatomy and Physiology II | 4 | 8 | BIOL 230 Human Anatomy and Physiology I (72) (C and above) | | | Biological Sciences | SST | SEng, SHSS | |
| 105 | BIOL 341 | Biochemistry I | 3 | 6 | CHEM 211 Organic Chemistry I (154) (C and above) | | | Biological Sciences | SST | SEng, SHSS | |
| 106 | BIOL 356 | Junior Research | 3 | 6 | | BIOL 355 Critical Research Reasoning (1000) (C and above) | | Biological Sciences | SST | SEng, SHSS | |
| 107 | BIOL 370 | Genetics | 3 | 6 | BIOL 120 Modern Biology II (1195) (C and above) | | | Biological Sciences | SST | SEng, SHSS | |
| 108 | BIOL 420 | Bioethics | 3 | 6 | BIOL 120 Modern Biology II (1195) (C and above) | | | Biological Sciences | SST | SEng, SHSS | |
| 109 | BIOL 430 | Histology | 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 | SST | SEng, SHSS | |

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| 110 | 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 | SST | SEng, SHSS | |
| 111 | BIOL 491 | Senior Thesis 2 | 4 | 8 | BIOL 490 Honors Thesis Research (1581) (C and above) | | | Through Add form only | | | |
| 112 | BIOL 492 | Directed study in Biology | 3 | 6 | | | | | | | |
| 113 | BIOL 530 | Bioethics Principles and Practices | 3 | 6 | | | | 1 year Gr SST Biological Sciences | | | |
| 114 | BIOL 550 | The Eukaryotic Cells in Health and Disease | 3 | 6 | | | | 1 year Gr SST Biological Sciences | | | |
| 115 | BIOL 560 | Molecular Biology of Prokaryotic Cells | 3 | 6 | | | | 1 year Gr SST Biological Sciences | | | |
| 116 | BIOL 600 | Graduate Seminar Series | 3 | 6 | | | | 1 year Gr SST Biological Sciences, 2 year Gr SST Biological Sciences | | | |
| 117 | BIOL 637 | Fundamentals of Advanced Microscopy | 3 | 6 | | | | | | | |
| 118 | BIOL 699 | Research Thesis II | 6 | 12 | | | | 2 year Gr SST Biological Sciences | | | |
| **MMM** | | | | | | | | | | | |
| 119 | MMMM 508 | Molecular Immunology | 2 | 4 | | | | | | | |
| 120 | MMMM 509 | From the Bench to the Bedside: Drug Development and Clinical Trials | 3 | 6 | | | | | | | |
| 121 | MMMM 510 | Natural Medicine | 3 | 6 | | | | | | | |
| 122 | MMMM 511 | Research Methods in Molecular Biomedicine | 3 | 6 | | | | | | | |
| 123 | MMMM 512 | Molecular Basis of Chronic Inflammation | 1 | 2 | | | | | | | |
| **Master of Sciences in Biomedicine** | | | | | | | | | | | |
| 124 | MMMM 507 | Critical Analysis of the Contemporary Concepts in Molecular Medicine | 3 | 6 | | | | | | | |
| **Nursing** | | | | | | | | | | | |
| 125 | NUR 305 | Research Methods for Nursing | 3 | 6 | | | | | | | |
| 126 | NUR 306 | Medical-Surgical Nursing: Complex Medical Management for Acute and Chronic Patient | 4 | 8 | | | | | | | |

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| 127 | NUR 307 | Health Promotion and Disease Prevention in Culturally Diverse Populations | 4 | 8 | | | | | | | |
| 128 | NUR 308 | Enhanced Communication in Professional Nursing | 4 | 8 | | | | | | | |
| **Public Health** | | | | | | | | | | | |
| 129 | PUBH 512 | Biostatistical Modeling and Sampling | 3 | 6 | | | | | | | |
| 130 | PUBH 522 | Advanced Analytical Epidemiology | 3 | 6 | | | | | | | |
| 131 | PUBH 561 | Graduate Research Seminar I | 3 | 6 | | | | | | | |
| 132 | PUBH 631 | Social and Behavioral Sciences in Public Health | 3 | 6 | | | | | | | |
| 133 | PUBH 633 | Methods in Public Health | 3 | 6 | | | | | | | |
| 134 | PUBH 682 | Master's Project Implementation | 12 | 24 | | | | | | | |
| **SSH** | | | | | | | | | | | |
| **Academic Success Centre, Communication and Composition** | | | | | | | | | | | |
| 135 | SHSS 150 | Rhetoric and Composition | 3 | 6 | | | | 1 year UG SHSS | 2 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | |
| **Area Studies** | | | | | | | | | | | |
| 136 | EAS 502 | Disciplinary Methodology | 4 | 8 | | | | | | | |
| 137 | EAS 504 | Thesis II | 12.5 | 25 | EAS 500 Introduction to Eurasia (1632) (C- and above) AND EAS 501 General Methodology (1633) (C- and above) AND EAS 502 Disciplinary Methodology (1379) (C- and above) AND EAS 503 Thesis I (2141) (C- and above) | | | Eurasian Studies | | | |
| 138 | EAS 511 | Independent Study in Eurasian Studies | 4 | 8 | | | | Through Add form only | | | |
| **Chemistry** | | | | | | | | | | | |
| 139 | CHEM 092 | Survey of Environmental Sciences for Non-Science Majors | 3 | 6 | | | | SHSS | | | |
| 140 | CHEM 101 | General Chemistry I | 3 | 6 | | | | Biological Sciences, Chemistry | SST | SHSS | |
| 141 | CHEM 102 | General Chemistry II | 3 | 6 | CHEM 101 General Chemistry I (113) (C and above) | | | Biological Sciences, Chemistry | SST | SHSS | |

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| 142 | CHEM 102L | General Chemistry II lab | 1 | 2 | CHEM 101L General Chemistry I lab (179) (C and above) | CHEM 102 General Chemistry II (232) (C and above) | | Biological Sciences, Chemistry | SST | SHSS | |
| 143 | CHEM 211 | Organic Chemistry I | 3 | 6 | CHEM 102 General Chemistry II (232) (C and above) | | | 2 year UG SST Biological Sciences, Chemistry | Biological Sciences | SST | |
| 144 | CHEM 211L | Organic Chemistry I Lab | 2 | 4 | CHEM 101L General Chemistry I lab (179) (C and above) | CHEM 211 Organic Chemistry I (154) (C and above) | | 2 year UG SST Biological Sciences, Chemistry | Biological Sciences | SST | |
| 145 | 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 | SST | |
| 146 | CHEM 212L | Organic Chemistry II Lab | 2 | 4 | 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 | SST | |
| 147 | CHEM 320 | Instrumental Analysis with Labs | 4 | 8 | CHEM 220 Quantitative Chemical Analysis (555) (C and above) | | | Chemistry | Biological Sciences | SST | |
| 148 | CHEM 331 | Physical Chemistry I | 3 | 6 | CHEM 220 Quantitative Chemical Analysis (555) (C and above) AND PHYS 161 Physics I for Scientists and Engineers with Laboratory (116) (C and above) | | | | | | |
| 149 | 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 | SST | |

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| 150 | 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 | SST | |
| 151 | CHEM 380 | Research Methods | 3 | 6 | | | | Chemistry | Biological Sciences | SST | |
| 152 | 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 | SST | |
| 153 | CHEM 451 | Applied Homogenous Catalysis | 3 | 6 | CHEM 350 Advanced Inorganic Chemistry (1905) (C and above) | | | Chemistry | Biological Sciences | SST | |
| 154 | CHEM 490 | Nanochemistry | 3 | 6 | CHEM 331 Physical Chemistry I (634) (C and above) AND CHEM 250 Descriptive Inorganic Chemistry (445) (C and above) | | | Chemistry | Biological Sciences | SST | |
| 155 | CHEM 491 | Special Topics in Chemistry | 3 | 6 | | | | Chemistry | Biological Sciences | SST | |
| **Communication and Composition** | | | | | | | | | | | |
| 156 | COMM 102 | Communication Foundations II | 3 | 6 | WCS 150/ASC 100 Advanced English for Academic Purposes (2183) (C- and above) | | | 3 year UG SEng Civil Engineering, SHSS, SST | | | |
| 157 | COMM 240 | Health Communication | 3 | 6 | WCS 101 Communication and Society (199) (C- and above) | | | 3 year UG SEng Civil Engineering, SHSS, SST | | | |
| 158 | COMM 325 | Computer-Mediated Communication | 3 | 6 | | | | 3 year UG SEng Civil Engineering, SHSS, SST | | | |
| 159 | SHSS 230 | Rhetoric & Style in Academic Writing | 3 | 6 | WCS 150/ASC 100 Advanced English for Academic Purposes (2183) (C- and above) | | | 1 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | | |
| 160 | SHSS 331 | Writing Fellows – Practicum in Composition & Collaboration II | 3 | 6 | WCS 390 Writing Fellows I – Composition and Collaboration in Theory and Practice (1969) (B and above) | | | Through Add form only | | | |
| **Communication and Composition, Languages, Literature and Linguistics** | | | | | | | | | | | |

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| 161 | WLL 235/SHSS 260 | Creative Writing: Introduction to Fiction Writing I | 3 | 6 | WCS 150/ASC 100 Advanced English for Academic Purposes (2183) (C- and above) | | | Through Add form only | | | |
| **History, Philosophy and Religious Studies** | | | | | | | | | | | |
| 162 | HST 100 | History of Kazakhstan | 3 | 6 | | | | 4 year UG SENG, 4 year UG SHSS, 4 year UG SST | 1 year UG SHSS | SEng, SHSS, SST | |
| 163 | HST 132 | European History II (from 1700) | 3 | 6 | | | | History | 1 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 164 | HST 152 | US History II (from 1877) | 3 | 6 | | | | History | 3 year UG SEng Civil Engineering, SHSS, SST | | |
| 165 | HST 232 | Russian History from Riurik to Catherine the Great | 3 | 6 | | | | History | 1 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 166 | HST 239 | Modernizing the Periphery: Crime, Community and Culture in Central Europe, 1790 - 1990 | 3 | 6 | Subject "HST" BETWEEN 100 and 199 | | | History | 1 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 167 | HST 331 | The Eurasian Enlightenment | 3 | 6 | HST 100 History of Kazakhstan (172) (C- and above) OR Subject "HST" BETWEEN 100 and 199 | | | History | 3 year UG SEng Civil Engineering, SHSS, SST | | |
| 168 | HST 499 | History Capstone: Undergraduate Dissertation | 4 | 8 | HST 498 Directed Reading (1365) (C- and above) | | | Through Add form only | | | |
| 169 | HST 524 | Global Histories | 4 | 8 | | | | | | | |
| 170 | PHIL 101 | Introduction to Philosophy | 3 | 6 | | | | SHSS | 3 year UG SEng Civil Engineering, SST | | |
| 171 | PHIL 124 | Knowledge and Reality | 3 | 6 | | | | SHSS | 3 year UG SEng Civil Engineering, SST | | |
| 172 | PHIL 131 | Introduction to Contemporary Political Philosophy | 3 | 6 | | | | SHSS | 3 year UG SEng Civil Engineering, SST | | |
| 173 | PHIL 205 | Introduction to Modern Philosophy | 3 | 6 | | | | SHSS | 3 year UG SEng Civil Engineering, SST | | |

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| 174 | PHIL 210 | Ethics | 3 | 6 | | | | Chemistry | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 175 | PHIL 220 | Truth, Knowledge and Belief | 3 | 6 | | | | SHSS | 3 year UG SEng Civil Engineering, SST | | |
| 176 | PHIL 223 | Philosophy of Science | 3 | 6 | | | | SHSS | 3 year UG SEng Civil Engineering, SST | | |
| 177 | PHIL 240 | Formal Logic | 3 | 6 | | | | SHSS | 3 year UG SEng Civil Engineering, SST | | |
| 178 | PHIL 321/PLS 321 | Social Contract Theory | 3 | 6 | PLS 120 Introduction to Political Theory (512) (C- and above) | | | SHSS | 3 year UG SEng Civil Engineering, SST | | |
| 179 | PHIL 352 | Sex, Life, and Death: The Philosophy of Biology | 3 | 6 | | | | SHSS | 3 year UG SEng Civil Engineering, SST | | |
| 180 | REL 212 | Buddhist Religious Traditions | 3 | 6 | | | | 1 year UG SENG, 1 year UG SHSS, 1 year UG SST | 3 year UG SEng Civil Engineering, SHSS, SST | | |
| **History, Philosophy and Religious Studies, History, Philosophy and Religious Studies** | | | | | | | | | | | |
| 181 | HST 263/REL 263 | The History of Islam II: Islam in the Modern World | 3 | 6 | | | | History | 1 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | |
| **History, Philosophy and Religious Studies, Kazakh Language and Turkic Studies** | | | | | | | | | | | |
| 182 | HST 272 | Modern Turkey: from the Ottoman Empire to the Turkish Republic | 3 | 6 | | | | 1 year UG SENG, 1 year UG SHSS, 1 year UG SST | 3 year UG SEng Civil Engineering, SHSS, SST | | |
| **History, Philosophy and Religious Studies, Languages, Literature and Linguistics** | | | | | | | | | | | |
| 183 | PHIL 102/WLL 102 | Language, Experience, Culture | 3 | 6 | | | | 3 year UG SEng Civil Engineering, SHSS, SST | | | |
| **History, Philosophy and Religious Studies, Languages, Literature and Linguistics, Political Science and International Relations** | | | | | | | | | | | |
| 184 | HST 342/PLS 322/WLL 342 | 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 | | | History | 3 year UG SEng Civil Engineering, SHSS, SST | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| **History, Philosophy and Religious Studies, Political Science and International Relations, Sociology and Anthropology** | | | | | | | | | | | |
| 185 | ANT 313/PLS 332/REL 332 | Islam and Politics in Eurasia | 3 | 6 | | | | 4 year UG SHSS Political Sciences and International Relations, Anthropology | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |
| **History, Philosophy and Religious Studies, Sociology and Anthropology** | | | | | | | | | | | |
| 186 | ANT 287/HST 223 | Cannibalism and Civilization | 3 | 6 | | | | Anthropology, History | 1 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 187 | 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) | | | History, Sociology | 1 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | |
| **Kazakh Language and Turkic Studies** | | | | | | | | | | | |
| 188 | KAZ 001 | Kazakh Language Placement Test | 0 | 0 | | | | | | | |
| 189 | KAZ 101 | Basic Kazakh I | 3 | 6 | KLL "[A2] Basic" | | | | | SEng, SHSS, SST | |
| 190 | KAZ 111 | Intermediate Kazakh I | 3 | 6 | KLL "[B1.2] Intermediate" | | | | | SEng, SHSS, SST | |
| 191 | KAZ 121 | Upper-Intermediate Kazakh | 3 | 6 | KLL "[B2.2] Upper-Interm." | | | | | SEng, SHSS, SST | |
| 192 | KAZ 211 | Kazakh Rhetoric | 3 | 6 | KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced" | | KAZ 303 Academic Speaking in Kazakh (702) (C- and above) OR KAZ 304 Academic Writing in Kazakh (703) (C- and above) | | | SEng, SHSS, SST | |
| 193 | KAZ 212 | Academic Kazakh | 3 | 6 | KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced" | | KAZ 304 Academic Writing in Kazakh (703) (C- and above) OR KAZ 303 Academic Speaking in Kazakh (702) (C- and above) | | | SEng, SHSS, SST | |
| 194 | KAZ 213 | Kazakh Terminology | 3 | 6 | KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced" | | | | | SEng, SHSS, SST | |
| 195 | KAZ 225 | Kazakh Diplomacy | 3 | 6 | KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced" | | | | | SEng, SHSS, SST | |

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| 196 | KAZ 226 | Kazakh for Medical School | 3 | 6 | KLL "[B1.2] Intermediate" | | | | | SEng, SHSS, SST | |
| 197 | KAZ 230 | Kazakh Culture through Ethnography, Literature, and Film | 3 | 6 | KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced" | | | | | SEng, SHSS, SST | |
| 198 | KAZ 263 | Business Etiquette | 3 | 6 | KLL "[B2.2] Upper-Interm." OR KLL "[C1.1] Advanced" | | | | | SEng, SHSS, SST | |
| 199 | KAZ 264 | Language and ethnicity | 3 | 6 | KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced" | | | | | SEng, SHSS, SST | |
| 200 | KAZ 313 | Kazakh for Business | 3 | 6 | KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced" | | | | | SEng, SHSS, SST | |
| 201 | KAZ 351 | Kazakh Short Stories | 3 | 6 | KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced" | | | | | SEng, SHSS, SST | |
| 202 | KAZ 354 | Kazakh Drama | 3 | 6 | KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced" | | | | | SEng, SHSS, SST | |
| 203 | KAZ 356 | Kazakh Music History | 3 | 6 | KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced" | | | | | SEng, SHSS, SST | |
| 204 | KAZ 357 | Literature of Alash | 3 | 6 | KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced" | | | | | SEng, SHSS, SST | |
| 205 | KAZ 362 | Creative Writing in Kazakh Language | 3 | 6 | KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced" | | | | | SEng, SHSS, SST | |
| 206 | KAZ 364 | Kazakh for Civil Service | 3 | 6 | KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced" | | | | | SEng, SHSS, SST | |
| 207 | KAZ 371 | Contemporary Kazakh Literature | 3 | 6 | KAZ 202 Academic Kazakh II (4562) (C- and above) OR KLL "[C1.1] Advanced" | | | | | SEng, SHSS, SST | |
| 208 | TUR 230 | Literatures of Central Asia | 3 | 6 | | | | 3 year UG SEng Civil Engineering, SHSS, SST | | | |
| 209 | TUR 412 | Advanced Turkish in Media and Politics | 3 | 6 | | | | 3 year UG SEng Civil Engineering, SHSS, SST | | | |
| 210 | TUR 451 | The Turkish Novel | 3 | 6 | | | | 3 year UG SEng Civil Engineering, SHSS, SST | | | |
| **Languages, Literature and Linguistics** | | | | | | | | | | | |
| 211 | CHN 101 | Beginning Mandarin I | 4 | 8 | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 212 | CHN 102 | Beginning Mandarin II | 4 | 8 | CHN 101 Beginning Mandarin I (1384) (C and above) | | | World Languages, Literature and Culture | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 213 | CHN 202 | Intermediate Mandarin II | 4 | 8 | CHN 201 Intermediate Mandarin I (2181) (C and above) | | | World Languages, Literature and Culture | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 214 | FRE 202 | Intermediate French II | 4 | 8 | FRE 201 Intermediate French I (667) (C- and above) | | | World Languages, Literature and Culture | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 215 | FRE 322 | Contemporary French Civilization | 3 | 6 | FRE 202 Intermediate French II (1122) (C- and above) | | | World Languages, Literature and Culture | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 216 | GER 201 | Intermediate German I | 4 | 8 | GER 102 Beginning German II (3335) (C- and above) | | | World Languages, Literature and Culture | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 217 | GER 202 | Intermediate German II | 4 | 8 | GER 201 Intermediate German I (3722) (C- and above) | | | World Languages, Literature and Culture | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 218 | SPA 102 | Beginning Spanish II | 4 | 8 | SPA 101 Beginning Spanish I (685) (C- and above) | | | World Languages, Literature and Culture | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 219 | SPA 202 | Intermediate Spanish II | 4 | 8 | SPA 201 Intermediate Spanish I (1475) (C- and above) | | | World Languages, Literature and Culture | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 220 | SPA 320 | The Hispanic Short Story | 3 | 6 | Subject "WLL" BETWEEN 100 and 199 AND SPA 202 Intermediate Spanish II (1842) (C- and above) | | | 3 year UG SEng Civil Engineering, SHSS, SST | | | |
| 221 | WLL 101 | Introduction to Critical Issues in the Humanities and Social Sciences | 3 | 6 | | | | | | | |
| 222 | WLL 110 | Introduction to Literary Studies | 3 | 6 | | | | 1 year UG SENG, 1 year UG SHSS, 1 year UG SST | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 223 | WLL 121 | Introduction to Cultural Studies | 3 | 6 | | | | 1 year UG SENG, 1 year UG SHSS, 1 year UG SST | SHSS | 3 year UG SEng Civil Engineering, SST | |

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| 224 | WLL 130 | Introduction to Language and Communication | 3 | 6 | | | | World Languages, Literature and Culture | 3 year UG SEng Civil Engineering, SHSS, SST | | |
| 225 | WLL 131 | Introduction to Linguistics | 3 | 6 | | | | World Languages, Literature and Culture | 3 year UG SEng Civil Engineering, SHSS, SST | | |
| 226 | WLL 211 | World Literature II: from the 18th to the 20th century | 3 | 6 | | | | World Languages, Literature and Culture | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 227 | WLL 240 | Introduction to the Novel | 3 | 6 | | | | World Languages, Literature and Culture | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 228 | WLL 270 | Languages of Eurasia | 3 | 6 | | | | World Languages, Literature and Culture | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 229 | WLL 272 | Language and the Mind | 3 | 6 | | | | SHSS | 3 year UG SEng Civil Engineering, SST | | |
| 230 | WLL 278 | Sounds of the World’s Languages | 3 | 6 | | | | World Languages, Literature and Culture | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 231 | WLL 313 | Dante's Inferno | 3 | 6 | Subject "WLL" BETWEEN 100 and 499 OR Subject "HST" BETWEEN 100 and 499 | | | 3 year UG SEng Civil Engineering, SHSS, SST | | | |
| 232 | WLL 375 | Psychology of Language | 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, Literature and Culture | SHSS | 3 year UG SEng Civil Engineering, SST | |
| 233 | WLL 399 | Independent Study | 3 | 6 | | | | Through Add form only | | | |
| 234 | WLL 499 | Languages and Literature Capstone II | 3 | 6 | WLL 498 Languages, Linguistics, and Literatures Capstone I (3048) (C- and above) | | | Through Add form only | | | |
| **Physics** | | | | | | | | | | | |

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| 235 | 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) | SST | SEng, SHSS | | |
| 236 | 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) | SST | SEng, SHSS | | |
| 237 | PHYS 202 | Introductory Astrophysics | 3 | 6 | PHYS 162 Physics II for Scientists and Engineers with Laboratory (173) (C- and above) | | | SST | SEng, SHSS | | |
| 238 | 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 | SST | | |
| 239 | 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) OR CSCI 115 Programming Fundamentals (5257) (C- and above)) AND MATH 162 Calculus II (170) (C- and above) | MATH 273 Linear Algebra with Applications (84) (D and above) | | Physics | SST | | |
| 240 | 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 | SST | | |
| 241 | PHYS 362 | Classical Electrodynamics II | 3 | 6 | PHYS 361 Classical Electrodynamics I (651) (C- and above) | | | Physics | SST | | |
| 242 | PHYS 370 | Optics with Laboratory | 4 | 8 | PHYS 361 Classical Electrodynamics I (651) (C- and above) | | | Physics | SST | | |
| 243 | PHYS 395 | Research Methods | 3 | 6 | | | | Physics | SST | | |

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| 244 | 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 | SST | | |
| 245 | PHYS 483 | Statistical Mechanics | 3 | 6 | PHYS 280 Thermodynamics and Statistical Physics (1179) (C- and above) | | | Physics | SST | | |
| 246 | PHYS 491 | Directed Study of Advanced Physics Topics | 3 | 6 | | | | Through Add form only | | | |
| 247 | PHYS 499 | Graduation Project | 3 | 6 | | | | Through Add form only | | | |
| 248 | PHYS 510 | Quantum Mechanics | 3 | 6 | | | | 1 year Gr SST Physics | | | |
| 249 | PHYS 520 | Statistical Physics | 3 | 6 | | | | 1 year Gr SST Physics | | | |
| **Political Science and International Relations** | | | | | | | | | | | |
| 250 | PLS 101 | Introduction to Political Science | 3 | 6 | | | | 3 year UG SEng Civil Engineering, SST | Anthropology, Economics, History, Sociology, Undeclared, World Languages, Literature and Culture | | |
| 251 | PLS 120 | Introduction to Political Theory | 3 | 6 | | | | 1 year UG SHSS | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 252 | PLS 140 | Introduction to Comparative Politics | 3 | 6 | | | | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 253 | PLS 195/SOC 120 | Asian Community: Development in Asia | 3 | 6 | | | | 3 year UG SEng Civil Engineering, SHSS, SST | | | |
| 254 | PLS 210 | Political Science Research Methods | 3 | 6 | | | | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 255 | PLS 211 | Quantitative Methods in Political Science | 3 | 6 | | | ECON 211 Economic Statistics (2280) (C- and above) | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |

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| 256 | PLS 325 | Ancient Political Theory | 3 | 6 | PLS 120 Introduction to Political Theory (512) (C- and above) | | | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 257 | PLS 330 | Politics and Governance of Eurasia | 3 | 6 | PLS 210 Political Science Research Methods (129) (C- and above) | | | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 258 | 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) | | | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 259 | PLS 351 | International Political Economy | 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) | | | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 260 | 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) | | | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 261 | PLS 354 | Introduction to International Law | 3 | 6 | PLS 150 Introduction to International Relations (511) (C- and above) AND PLS 140 Introduction to Comparative Politics (223) (C- and above) AND PLS 120 Introduction to Political Theory (512) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above) | | | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 262 | PLS 355 | European Union: Institutions and Policies | 3 | 6 | PLS 210 Political Science Research Methods (129) (C- and above) | | | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |

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| 263 | PLS 365/SOC 365 | Civil-Military Relations | 3 | 6 | PLS 211 Quantitative Methods (221) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above) | | | 4 year UG SHSS Political Sciences and International Relations, Sociology | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 264 | PLS 391 | Intermediate Special Topics in Comparative Politics | 3 | 6 | PLS 210 Political Science Research Methods (129) (C- and above) | | | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 265 | 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) | | | Through Add form only | | | |
| 266 | PLS 431 | Politics and Governance of the Russian Federation | 3 | 6 | PLS 210 Political Science Research Methods (129) (C- and above) | | | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 267 | PLS 447 | Comparative Political Parties | 3 | 6 | PLS 140 Introduction to Comparative Politics (223) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above) | | | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 268 | PLS 455 | The Politics of Arms 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) | | | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 269 | PLS 457 | International Security and Conflict | 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) | | | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 270 | PLS 458 | International Organization | 3 | 6 | PLS 150 Introduction to International Relations (511) (C- and above) AND PLS 210 Political Science Research Methods (129) (C- and above) | | | 4 year UG SHSS Political Sciences and International Relations | 3 year UG SHSS Political Sciences and International Relations | 3 year UG SEng Civil Engineering, SHSS, SST | |

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| 271 | 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) | | | Through Add form only | | | |
| 272 | PLS 510 | Advanced Research II | 4 | 8 | | | | 1 year Gr SHSS Political Sciences and Int. Relations | | | |
| 273 | PLS 531 | Politics and Governance of the Russian Federation | 4 | 8 | | | | 2 year Gr SHSS Political Sciences and Int. Relations | 1 year Gr SHSS Political Sciences and Int. Relations | | |
| 274 | PLS 540 | Core Seminar in Comparative Politics | 4 | 8 | | | | 1 year Gr SHSS Political Sciences and Int. Relations | | | |
| 275 | PLS 547 | Comparative Political Parties | 4 | 8 | | | | 2 year Gr SHSS Political Sciences and Int. Relations | 1 year Gr SHSS Political Sciences and Int. Relations | | |
| 276 | PLS 555 | The Politics of Arms in International Relations | 4 | 8 | | | | 2 year Gr SHSS Political Sciences and Int. Relations | 1 year Gr SHSS Political Sciences and Int. Relations | | |
| 277 | PLS 558 | International Organization | 4 | 8 | PLS 550 Core Seminar in IR (1372) (C- and above) | | | 2 year Gr SHSS Political Sciences and Int. Relations | 1 year Gr SHSS Political Sciences and Int. Relations | | |
| 278 | PLS 598 | MA Thesis for Political Science and International Relations | 10 | 20 | | | | 2 year Gr SHSS Political Sciences and Int. Relations | | | |
| **SSH** | | | | | | | | | | | |
| 279 | SHSS 300 | School of Humanities and Social Sciences Internship | 3 | 6 | | | | Through Add form only | | | |
| 280 | SHSS 301 | School of Humanities and Social Sciences Internship: Second Experience | 3 | 6 | | | | | | | |
| **Sociology and Anthropology** | | | | | | | | | | | |
| 281 | ANT 101 | Introduction to Sociocultural Anthropology | 3 | 6 | | | | 1 year UG SHSS, Anthropology, Sociology | 2 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 282 | ANT 140 | World Prehistory | 3 | 6 | | | | 1 year UG SHSS, Anthropology, Sociology | 2 year UG SHSS, 4 year UG SST | 3 year UG SEng Civil Engineering, SHSS, SST | |

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| 283 | ANT 160 | Introduction to Biological Anthropology | 3 | 6 | | | ANT 361 Human Evolution: Bones, Stones and Genomes (160) (C- and above) | 1 year UG SHSS, Anthropology, Sociology | 2 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 284 | ANT 286 | Nomads: Around the world and through time | 3 | 6 | | | | Anthropology, Sociology | 2 year UG SHSS, 3 year UG SHSS, 3 year UG SST, 4 year UG SST | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 285 | ANT 306 | Anthropology of Performance | 3 | 6 | | | | 3 year UG SHSS, 4 year UG SHSS, Anthropology | 1 year UG SHSS, 2 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 286 | ANT 314/PLS 335 | 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, Political Science and International Relations | 2 year UG SHSS, 3 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 287 | ANT 361 | Human Evolution: Bones, Stones and Genomes | 3 | 6 | | | | 3 year UG SHSS, 4 year UG SHSS, Anthropology | 1 year UG SHSS, 2 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 288 | ANT 399 | Special Topics in Anthropology | 3 | 6 | | | | | | | |
| 289 | ANT 400 | Research Assistance in Anthropology | 1 | 2 | | | | Through Add form only | | | |
| 290 | ANT 499 | Capstone Seminar II | 4 | 8 | ANT 498 Capstone Seminar I (2965) (C- and above) | | | 3 year UG SEng Civil Engineering, SHSS, SST | | | |
| 291 | ANT 520 | Materiality in Eurasian Society | 4 | 8 | | | | | | | |
| 292 | SOC 101 | Introduction to Sociology | 3 | 6 | | | | 1 year UG SHSS | 2 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 293 | SOC 201 | Social Science Research Methods | 3 | 6 | | | | Anthropology, Sociology | 3 year UG SEng Civil Engineering, SHSS, SST | | |
| 294 | SOC 215 | Sociology of Race and Ethnicity | 3 | 6 | | | | Anthropology, Sociology | 2 year UG SHSS, 3 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | |

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| 295 | SOC 220 | Science, Technology, and Society | 3 | 6 | | | | Anthropology, Sociology | 2 year UG SHSS, 3 year UG SHSS, 3 year UG SST, 4 year UG SST | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 296 | SOC 223 | Social Movements: How People Make Change | 3 | 6 | | | | Anthropology, Sociology | 2 year UG SHSS, 3 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 297 | SOC 227 | Economy and Society | 3 | 6 | SOC 101 Introduction to Sociology (508) (C- and above) OR Subject "SOC" BETWEEN 200 and 299 OR Subject "SOC" BETWEEN 200 and 299 OR ECON 102 Introduction to Macroeconomics (503) (C- and above) OR PLS 120 Introduction to Political Theory (512) (C- and above) OR PLS 150 Introduction to International Relations (511) (C- and above) | | | 2 year UG SHSS, Sociology | 3 year UG SHSS, Economics | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 298 | SOC 302 | Decolonizing Social Theory: Can Women and Non-Europeans Think? | 3 | 6 | | | | Anthropology, Sociology | 2 year UG SHSS, 3 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 299 | SOC 400 | Research Assistance in Sociology | 1 | 2 | | | | Through Add form only | | | |
| 300 | SOC 404 | Research Assistance in Sociology | 3 | 6 | | | | Through Add form only | | | |
| 301 | SOC 499 | Capstone Seminar II | 4 | 8 | SOC 498 Capstone Seminar Part I (3043) (C- and above) | | | 3 year UG SEng Civil Engineering, SHSS, SST | | | |
| **Sociology and Anthropology, Sociology and Anthropology** | | | | | | | | | | | |
| 302 | ANT 216 | Marriage and Kinship | 3 | 6 | | | | 1 year UG SHSS, 2 year UG SHSS, Anthropology | 4 year UG SST | 3 year UG SEng Civil Engineering, SHSS, SST | |
| 303 | ANT 285/SOC 212 | Food and Society | 3 | 6 | | | | Anthropology, Sociology | 2 year UG SHSS | 3 year UG SEng Civil Engineering, SHSS, SST | |
| **SEDS** | | | | | | | | | | | |
| **Chemical Engineering** | | | | | | | | | | | |
| 304 | MCHE 601 | Pipeline Engineering & Flow Assurance | 3 | 6 | | | | | | | |
| 305 | MCHE 602 | Process Engineering and Simulation | 3 | 6 | MCHE 615 Advanced Unit Operations (3145) (D and above) | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 306 | MCHE 603 | Crude Oil Processing | 3 | 6 | | | | | | | |
| 307 | MCHE 604 | Natural Gas Processing | 3 | 6 | | | | | | | |
| 308 | MCHE 605 | Petroleum Refining Water/Wastewater Use and Management | 3 | 6 | | | | | | | |
| **Civil Engineering** | | | | | | | | | | | |
| 309 | MCE 609 | Contaminated Site Management and Soil Treatment Technologies | 3 | 6 | | | | | | | |
| 310 | MCE 610 | Sustainable Transportation Systems | 3 | 6 | | | | | | | |
| 311 | MCE 611 | Sustainable Infrastructure Systems | 3 | 6 | | | | | | | |
| 312 | MCE 612 | Resilient Structural and Geotechnical Systems | 3 | 6 | | | | | | | |
| **Computer Science** | | | | | | | | | | | |
| 313 | SST 502 | Teaching Practicum | 3 | 6 | | | | 1 year Gr SST Applied Mathematics, 1 year Gr SST Computer Science, 1 year Gr SST Physics, 1 year Gr SST Robotics and Mechatronics | | | |
| 314 | SST 504 | Innovation & Entrepreneurship | 3 | 6 | | | | 1 year Gr SST Computer Science, 1 year Gr SST Physics, 1 year Gr SST Robotics and Mechatronics | | | |
| **Electrical and Electronic Engineering** | | | | | | | | | | | |
| 315 | MEE 601 | Industrial and Commercial Power System | 3 | 6 | | | | | | | |
| 316 | MEE 602 | Advanced Power Electronics | 3 | 6 | | | | | | | |
| 317 | MEE 609 | Internet of Things | 3 | 6 | | | | | | | |
| 318 | MEE 615 | Wireless Communications | 3 | 6 | | | | | | | |
| 319 | MEE 618 | Optical Communication | 3 | 6 | | | | | | | |
| 320 | MEE 620 | RF and Microwave Communications Systems | 3 | 6 | | | | | | | |
| 321 | MEE 624 | Pattern Recognition | 3 | 6 | | | | | | | |
| 322 | MEE 627 | Switched Capacitor Converters (Special Topics in Power Engineering) | 3 | 6 | | | | | | | |
| 323 | MEE 629 | System Design for Wireless | 3 | 6 | | | | | | | |
| **Mechanical Engineering** | | | | | | | | | | | |
| 324 | MME 622 | Advanced Design and Manufacturing | 3 | 6 | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 325 | MME 623 | Design and Manufacturing with Environmental Concern | 3 | 6 | | | | | | | |
| 326 | MME 624 | Design Optimization | 3 | 6 | | | | | | | |
| 327 | MME 625 | Advanced Computer Aided Engineering | 3 | 6 | | | | | | | |
| 328 | MME 626 | Advanced Manufacturing Processes and Strategies | 3 | 6 | | | | | | | |
| **School of Engineering** | | | | | | | | | | | |
| 329 | BENG 114 | Introduction to Electrical Systems | 3 | 6 | | | | | | | |
| 330 | BENG 147 | Introduction to Fluid Mechanics and Thermodynamics | 3 | 6 | BENG 124 Engineering Mathematics I (101) (D and above) | | | | | | |
| 331 | BENG 148 | Engineering Practice | 3 | 6 | | | | | | | |
| 332 | BENG 201 | Engineering Economy | 3 | 6 | | | | | | | |
| 333 | BENG 219 | Control Systems | 3 | 6 | | | | | | | |
| 334 | BENG 225 | Engineering Mathematics II | 3 | 6 | | | | | | | |
| 335 | BENG 226 | Engineering Thermodynamics | 3 | 6 | | | | | | | |
| 336 | BENG 304 | Internship | 2 | 4 | | | | | | | |
| **SoE** | | | | | | | | | | | |
| **Chemical and Materials Engineering** | | | | | | | | | | | |
| 337 | ECHE 210 | Foundations of Unit Operations | 3 | 6 | | | | | | | |
| 338 | ECHE 221 | Engineering Fluid Mechanics | 3 | 6 | | | | | | | |
| 339 | ECHE 270 | Transport Phenomena-l | 3 | 6 | | | | | | | |
| 340 | ECHE 323 | Computational methods in Chemical Engineering-I | 3 | 6 | ECHE 333 Separation Processes-I (1271) (D and above) | ECHE 481 Chemical Reaction Engineering (1985) (D and above) | | | | | |
| 341 | ECHE 383 | Separation Processes II | 3 | 6 | ECHE 126 Introduction to Chemical Engineering (33) (D and above) AND ECHE 225 Heat and Mass Transfer Operations (541) (D and above) | | | | | | |
| 342 | ECHE 386 | Chemical Plant Design and Optimization | 3 | 6 | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 343 | ECHE 387 | Chemical Reaction Engineering 2 | 3 | 6 | | | | | | | |
| 344 | ECHE 388 | Process Dynamics and Control | 3 | 6 | | | | | | | |
| 345 | ECHE 420 | Polymer Processing and Rheology | 3 | 6 | | | | | | | |
| 346 | ECHE 421 | Tissue Engineering | 3 | 6 | | | | | | | |
| 347 | ECHE 478 | Electrochemical Engineering and Corrosion Protection | 3 | 6 | ECHE 222 Chemistry I (731) (D and above) | | | | | | |
| 348 | ECHE 479 | Capstone Project II | 9 | 18 | ECHE 418 Capstone project 1 (1278) (D and above) | | | | | | |
| 349 | ECHE 483 | Chemistry II | 3 | 6 | ECHE 222 Chemistry I (731) (D and above) | | | | | | |
| **Civil and Environmental Engineering** | | | | | | | | | | | |
| 350 | ECE 210 | Soil Mechanics | 3 | 6 | | | | | | | |
| 351 | ECE 218 | Environmental Chemistry | 3 | 6 | | | | | | | |
| 352 | ECE 219 | Hydraulics | 3 | 6 | | | | | | | |
| 353 | ECE 306 | Geotechnical Design | 3 | 6 | ECE 210 Soil Mechanics (862) (D and above) | | | | | | |
| 354 | ECE 319 | Structural Design – Steel | 3 | 6 | | | | | | | |
| 355 | ECE 320 | Engineering Hydrology | 3 | 6 | | | | | | | |
| 356 | ECE 405 | Environmental Engineering | 3 | 6 | ECE 473 Environmental Systems (1953) (D and above) OR ECE 218 Environmental Chemistry (3296) (D and above) | | | | | | |
| 357 | ECE 420 | Modern Information Technology in Construction | 3 | 6 | | | | | | | |
| 358 | ECE 421 | Behaviour and Design of Structural System | 3 | 6 | (ECE 318 Structural Design - Concrete (3709) (D and above) OR ECE 314 Structural Engineering Applications I (1042) (D and above)) AND (ECE 319 Structural Design – Steel (4038) (D and above) OR ECE 315 Structural Engineering Applications II (1041) (D and above)) | | | | | | |
| 359 | ECE 422 | Prestressed Concrete Design | 3 | 6 | | | | | | | |
| 360 | ECE 423 | Structure and Properties of Concrete Materials | 3 | 6 | | | | | | | |
| 361 | ECE 472 | Water and Wastewater Treatment Processes | 3 | 6 | ECE 218 Environmental Chemistry (3296) (D and above) | | | | | | |

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| 362 | ECE 478 | Capstone Project II | 9 | 18 | ECE 401 Capstone Project 1 (1270) (D and above) | | | | | | |
| 363 | ECE 479 | Structural Analysis II | 3 | 6 | ECE 217 Structural Analysis I (3156) (D and above) | | | | | | |
| 364 | EMEM 510 | Managerial Accounting | 2 | 4 | | | | | | | |
| 365 | EMEM 511 | Business Strategy | 2 | 4 | | | | | | | |
| 366 | EMEM 512 | Leading Change | 2 | 4 | | | | | | | |
| 367 | EMEM 513 | Entrepreneurship | 2 | 4 | | | | | | | |
| 368 | EMEM 514 | Finance | 2 | 4 | | | | | | | |
| 369 | EMEM 516 | Management of Organizations | 2 | 4 | | | | | | | |
| 370 | EMEM 517 | Marketing | 2 | 4 | | | | | | | |
| 371 | EMEM 529 | Capstone Project | 8 | 16 | | | | | | | |
| 372 | EMEM 535 | Managing Product and Service Development | 3 | 6 | | | | | | | |
| 373 | EMEM 543 | Quality and Lean Management | 3 | 6 | | | | | | | |
| 374 | EMEM 545 | Business Communication | 2 | 4 | | | | | | | |
| **Electrical and Computer Engineering** | | | | | | | | | | | |
| 375 | EEE 210 | Software Engineering | 3 | 6 | BENG 146 Programming for Engineers (2234) (D and above) | | | | | | |
| 376 | EEE 211 | Computer Systems Architecture | 3 | 6 | ECHE 126 Introduction to Chemical Engineering (33) (D and above) | | | | | | |
| 377 | EEE 239 | Communication systems | 3 | 6 | | | | | | | |
| 378 | EEE 340 | Data Communications | 3 | 6 | | | | | | | |
| 379 | EEE 341 | Digital Electronic System Design | 3 | 6 | | | | | | | |
| 380 | EEE 343 | Embedded Microcontrollers | 3 | 6 | | | | | | | |
| 381 | EEE 379 | Power Systems Analysis | 3 | 6 | | | | | | | |
| 382 | EEE 381 | Electrical Machines and Drives | 3 | 6 | | | | | | | |
| 383 | EEE 411 | Special Topics in Signal Processing | 3 | 6 | | | | | | | |
| 384 | EEE 480 | Capstone Project II | 9 | 18 | | | | | | | |

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| 385 | EEE 484 | Electric Power Generation | 3 | 6 | | | | | | | |
| 386 | EEE 485 | Power System Analysis 2 | 3 | 6 | EEE 379 Power Systems Analysis (1956) (D and above) OR ELCE 355 Power Systems Protection (2652) (D and above) | | | | | | |
| 387 | EEE 486 | Photonics for Engineering | 3 | 6 | EEE 342 Electromagnetics (533) (D and above) | | | | | | |
| 388 | EEE 487 | Intelligent Algorithms for Power Systems | 3 | 6 | | | | | | | |
| 389 | EEE 488 | Numerical Optimization Techniques and Computer Applications | 3 | 6 | | | | | | | |
| 390 | EEE 489 | Analog Circuit Design | 3 | 6 | | | | | | | |
| **Mechanical and Aerospace Engineering** | | | | | | | | | | | |
| 391 | EME 275 | Fluid Mechanics I | 3 | 6 | | | | | | | |
| 392 | EME 300 | Research Project | 3 | 6 | | | | | | | |
| 393 | EME 352 | Computational Fluid Dynamics | 3 | 6 | | | | | | | |
| 394 | EME 357 | Fluid Mechanics II | 3 | 6 | | | | | | | |
| 395 | EME 377 | Mechanical Systems Design | 3 | 6 | EME 361 Machine Design (1051) (D and above) | | | | | | |
| 396 | EME 414 | Fire Engineering | 3 | 6 | BENG 226 Engineering Thermodynamics (1553) (D and above) | | | | | | |
| 397 | EME 415 | Flight Mechanics | 3 | 6 | | | | | | | |
| 398 | EME 464 | Materials and Manufacturing I | 3 | 6 | | | | | | | |
| 399 | EME 476 | Materials and Manufacturing II | 3 | 6 | | | | | | | |
| 400 | EME 477 | Capstone Project II | 9 | 18 | | | | | | | |
| 401 | EME 479 | Particulate Technology | 3 | 6 | | | | | | | |
| 402 | EME 480 | Industrial Automation | 3 | 6 | | | | | | | |
| 403 | EME 488 | Structural Mechanics | 3 | 6 | | | | | | | |
| **Mining Engineering** | | | | | | | | | | | |
| 404 | MINE 514 | Advanced Surface Mine Design | 3 | 6 | | | | | | | |
| 405 | MINE 515 | Advanced Underground Mine Design | 3 | 6 | | | | | | | |
| 406 | MINE 516 | Advanced Mine Ventilation | 3 | 6 | | | | | | | |
| 407 | MINE 517 | Mine Management and Sustainability | 3 | 6 | | | | | | | |
| **SMG** | | | | | | | | | | | |
| 408 | MSC 616 | Research Methods | 3 | 6 | | | | | | | |

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| **School of Engineering** | | | | | | | | | | | |
| 409 | DENG 785 | PhD Proposal Oral Defence | 0 | 0 | | | | | | | |
| 410 | DENG 787 | Doctoral Proposal II | 3 | 6 | DENG 784 Doctoral Proposal I (1774) (P) | DENG 785 PhD Proposal Oral Defence (2604) (P) | | | | | |
| 411 | DENG 794 | Dissertation Research | 12 | 24 | DENG 785 PhD Proposal Oral Defence (2604) (P) | | | | | | |
| 412 | DENG 796 | Thesis Completion | 0 | 0 | | | | | | | |
| 413 | 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) | | | | | | |
| **SCAI** | | | | | | | | | | | |
| **Computer Science** | | | | | | | | | | | |
| 414 | 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) | 1 year UG SST | SST | SHSS | |
| 415 | CSCI 152 | Performance and Data Structures | 4 | 8 | CSCI 151 Programming for Scientists and Engineers (192) (C- and above) | | | 1 year UG SST | SST | SHSS | |
| 416 | CSCI 232 | Operating Systems | 3 | 6 | CSCI 231 Computer Systems and Organization (194) (D and above) | | | 2 year UG SST Computer Science | Computer Science | SEng, SHSS, SST | |
| 417 | CSCI 233 | Computer Networks | 3 | 6 | CSCI 152 Performance and Data Structures (489) (C- and above) | | | 2 year UG SST Computer Science | Computer Science | SEng, SHSS, SST | |
| 418 | CSCI 245 | System Analysis and Design | 3 | 6 | CSCI 152 Performance and Data Structures (489) (C- and above) | | | Computer Science | SST | SEng, SHSS | |
| 419 | CSCI 330 | Mobile Computing | 3 | 6 | CSCI 332 Operating Systems (490) (C- and above) | | | Computer Science | SST | SEng, SHSS | |

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| 420 | CSCI 336 | Ubiquity and Sensing | 3 | 6 | CSCI 333 Computer Networks (1145) (C- and above) | | | Computer Science | SST | SEng, SHSS | |
| 421 | CSCI 353 | Programming Paradigms | 4 | 8 | CSCI 152 Performance and Data Structures (489) (C- and above) | | | 3 year UG SST Computer Science | Computer Science | SEng, SHSS, SST | |
| 422 | CSCI 361 | Software Engineering | 3 | 6 | CSCI 152 Performance and Data Structures (489) (C- and above) | | | 3 year UG SST Computer Science | Computer Science | SEng, SHSS, SST | |
| 423 | CSCI 398 | Directed Study | 3 | 6 | | | | Through Add form only | | | |
| 424 | CSCI 399 | Internship II | 3 | 6 | | | | Through Add form only | | | |
| 425 | CSCI 408 | Senior Project I | 3 | 6 | | | | 4 year UG SST Computer Science | | | |
| 426 | CSCI 409 | Senior Project II | 3 | 6 | CSCI 408 Senior Project I (1481) (C- and above) | | | Through Add form only | | | |
| 427 | CSCI 462 | Open Source Software | 3 | 6 | CSCI 361 Software Engineering (640) (C- and above) | | | Computer Science | SST | SEng, SHSS | |
| 428 | CSCI 502 | Hardware Software Co-Design | 3 | 6 | CSCI 501 Software Principles and Practice (2408) (C- and above) | | | 1 year Gr SST Computer Science, 1 year Gr SST Robotics and Mechatronics | | | |
| 429 | CSCI 591 | Advanced Artificial Intelligence | 3 | 6 | CSCI 501 Software Principles and Practice (2408) (C- and above) OR DS 501 Fundamentals of Data Science (5218) (C- and above) | | | 1 year Gr SST Computer Science | | | |
| 430 | SST 592 | Research Seminar | 3 | 6 | | | | 1 year Gr SST Applied Mathematics, 1 year Gr SST Computer Science, 1 year Gr SST Physics, 1 year Gr SST Robotics and Mechatronics | | | |
| 431 | SST 692 | Thesis | 15 | 30 | | | | 2 year Gr SST Computer Science, 2 year Gr SST Physics, 2 year Gr SST Robotics and Mechatronics | | | |
| **Mathematics** | | | | | | | | | | | |
| 432 | MATH 161 | Calculus I | 4 | 8 | | | | Biological Sciences, Chemistry | SST | SHSS | |
| 433 | MATH 162 | Calculus II | 4 | 8 | MATH 161 Calculus I (118) (C and above) | | | 1 year UG SST | SST | SHSS | |
| 434 | MATH 251 | Discrete Mathematics | 3 | 6 | MATH 161 Calculus I (118) (C and above) | | | Computer Science, Mathematics | SST | SHSS | |

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| 435 | MATH 263 | Calculus III | 4 | 8 | MATH 162 Calculus II (170) (C and above) | | | 2 year UG SST Undeclared, Mathematics | SST | SHSS | |
| 436 | MATH 273 | Linear Algebra with Applications | 4 | 8 | MATH 161 Calculus I (118) (C and above) | MATH 162 Calculus II (170) (C and above) | | Mathematics | SST | SHSS | |
| 437 | MATH 274 | Introduction to Differential Equations | 3 | 6 | MATH 162 Calculus II (170) (C and above) | | | 2 year UG SST Undeclared, Mathematics | SST | SHSS | |
| 438 | MATH 310 | Applied Statistical Methods | 3 | 6 | MATH 161 Calculus I (118) (C and above) | | MATH 321 Probability (482) (C and above) | Mathematics | SST | SHSS | |
| 439 | MATH 321 | Probability | 3 | 6 | MATH 162 Calculus II (170) (C and above) | | ECON 211 Economic Statistics (2280) (C- and above) OR PLS 211 Quantitative Methods (221) (C- and above) | Mathematics | SST | SHSS | |
| 440 | MATH 322 | Mathematical Statistics | 3 | 6 | MATH 321 Probability (482) (C and above) OR ECON 211 Economic Statistics (2280) (C and above) | | | Mathematics | SST | SHSS | |
| 441 | 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 | SST | SHSS | |
| 442 | 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 | SST | SHSS | |
| 443 | 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 | SST | SHSS | |
| 444 | 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 | SST | SHSS | |

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| 445 | MATH 417 | Cryptography | 3 | 6 | MATH 273 Linear Algebra with Applications (84) (C and above) AND (MATH 251 Discrete Mathematics (85) (C and above) OR MATH 301 Introduction to Number Theory (613) (C and above) OR MATH 355 Introduction to Proofs (86) (C and above)) | | | Mathematics | SST | SHSS | |
| 446 | MATH 423 | Actuarial Mathematics II | 3 | 6 | MATH 321 Probability (482) (C and above) OR ECON 211 Economic Statistics (2280) (C and above) | | | Mathematics | SST | SHSS | |
| 447 | MATH 460 | Topology | 3 | 6 | MATH 361 Real Analysis I (483) (C and above) | | | Mathematics | SST | SHSS | |
| 448 | MATH 461 | Real Analysis II | 3 | 6 | MATH 361 Real Analysis I (483) (C and above) | | | Mathematics | SST | SHSS | |
| 449 | MATH 477 | Applied Finite Element Methods | 3 | 6 | MATH 351 Numerical Methods with Applications (1166) (C and above) | | | Mathematics | SST | SHSS | |
| 450 | MATH 480 | Complex Analysis | 3 | 6 | MATH 263 Calculus III (81) (C and above) | | | Mathematics | SST | SHSS | |
| 451 | 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 | SST | SHSS | |
| 452 | MATH 490 | Special Topics in Mathematics | 3 | 6 | | | | Mathematics | SST | SHSS | |
| 453 | MATH 499 | Capstone Project | 3 | 6 | | | | Through Add form only | | | |
| 454 | MATH 512 | Optimization Methods and Techniques | 3 | 6 | | | | 1 year Gr SST Applied Mathematics | | | |
| 455 | MATH 541 | Data Analysis and Statistical Learning | 3 | 6 | MATH 540 Statistical Learning (2340) (B- and above) | | | 1 year Gr SST Applied Mathematics | | | |
| 456 | MATH 551 | Advanced Numerical Methods | 3 | 6 | | | | 1 year Gr SST Applied Mathematics | | | |
| **Robotics and Mechatronics** | | | | | | | | | | | |
| 457 | 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 | SST | SHSS | |

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| 458 | ROBT 204 | Electrical and Electronic Circuits II with Lab | 4 | 8 | ROBT 203 Electrical and Electronic Circuits I with Lab (62) (C- and above) | | | Physics, Robotics and Mechatronics | SST | SHSS | |
| 459 | 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 | SST | SHSS | |
| 460 | ROBT 302 | Mechanical Design II | 3 | 6 | ROBT 301 Mechanical Design I with CAD Laboratory (622) (C- and above) | | | Robotics and Mechatronics | SST | SHSS | |
| 461 | ROBT 304 | Electromechanical Systems with lab | 4 | 8 | ROBT 203 Electrical and Electronic Circuits I with Lab (62) (C- and above) | | | Robotics and Mechatronics | SST | SHSS | |
| 462 | ROBT 308 | Industrial Automation | 3 | 6 | | | | Computer Science, Robotics and Mechatronics | SST | SHSS | |
| 463 | 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) | | | Computer Science, Robotics and Mechatronics | SST | SHSS | |
| 464 | 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) | | | Robotics and Mechatronics | | | |
| 465 | ROBT 414 | Human-Robot Interaction | 3 | 6 | CSCI 152 Performance and Data Structures (489) (C- and above) | | | Computer Science, Robotics and Mechatronics | SST | SHSS | |
| 466 | ROBT 491 | Graduation Project | 3 | 6 | ROBT 391 Research methods (7418) (C- and above) | | | Robotics and Mechatronics | | | |
| 467 | ROBT 502 | Robot Perception & Vision | 3 | 6 | ROBT 501 Advanced Robot Kinematics (2263) (C- and above) | | | 1 year Gr SST Robotics and Mechatronics | | | |