



## List of Reviewed Courses for the Upper-Level STEM Course Requirement - B.S. International Affairs

### Please take note of the following before reviewing the list:

- This list of reviewed courses is not exhaustive - - these are only the courses that have been reviewed thus far for the upper-level STEM requirement.
- If you are interested in taking a different course for the STEM requirement that is not on this list, please submit a [Course Substitution Request](#) to have the course reviewed.
- All courses for the upper-level STEM requirement must be 2000 or higher, with the exception of MATH 1232: Calculus II.

### Approved Courses:

| Course Subject | Course Number | Newly Added | Course Title  |
|----------------|---------------|-------------|---|
| ACCY           | 2001          |             | Intro to Financial Accounting                                 |
| ACCY           | 2002          |             | Intro to Managerial Accounting                                |
| ACCY           | 3106          |             | Financial Statement Analysis                                  |
| ANAT           | 2130          |             | Human Embryology  |
| ANAT           | 2160          |             | Neuroimaging of the Disordered Brain (DIS Copenhagen Version) |
| APSC           | 2057          |             | Analytical Mechanics I  |
| APSC           | 2058          |             | Analytical Mechanics II                                       |
| BADM           | 3501          |             | Financial Management  |
| BADM           | 3601          |             | Operations Management   |
| BIO            | 2213          |             | Biology of Cancer   |
| BIOC           | 3261          |             | Introductory Medical Biochemistry (Same as BISC 3261)         |
| BIOC           | 3262          |             | Biochemistry Laboratory (Same as BISC 3262 and CHEM 3262)     |
| BISC           | 2099          |             | Animal Diversity (Victoria University of Wellington)          |
| BISC           | 2207          |             | Genetics  |
| BISC           | 2214          |             | Developmental Biology   |
| BISC           | 2220          |             | Developmental Neurobiology                                    |

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|------|-------|--|--|
| BISC | 2320  |  | Neuroplasticity: The Brain and Behavior (DIS Copenhagen Version) |
| BISC | 2339  |  | Parasitology   |
| BISC | 2450  |  | Organic Evolution  |
| BISC | 2452  |  | Animal Behavior (and lab BISC 2453)                              |
| BISC | 2454  |  | General Ecology (and lab BISC 2456)                              |
| BISC | 3209  |  | Molecular Biology  |
| BISC | 3261  |  | Introductory Medical Biochemistry (Same as BIOC 3261)            |
| BISC | 3262  |  | Biochemistry Laboratory (Same as BIOC 3262 and CHEM 3262)        |
| BISC | 3458  |  | Plant Comparative Structure and Function (and lab BISC 3453)     |
| CE   | 2220  |  | Introduction to the Mechanics of Solids                          |
| CHEM | 2085  |  | Environmental Chemistry  |
| CHEM | 2122  |  | Introductory Quantitative Analysis                               |
| CHEM | 2123  |  | Introductory Quantitative Analysis Laboratory                    |
| CHEM | 2123W |  | Introductory Quantitative Analysis Laboratory                    |
| CHEM | 2151  |  | Organic Chemistry I  |
| CHEM | 2153  |  | Organic Chemistry Lab I  |
| CHEM | 2152  |  | Organic Chemistry II   |
| CHEM | 2154  |  | Organic Chemistry Laboratory II                                  |
| CHEM | 3140  |  | Geochemistry   |
| CHEM | 3165  |  | Biochemistry I   |
| CHEM | 3166  |  | Biochemistry II  |
| CHEM | 3166W |  | Biochemistry II  |
| CHEM | 3170  |  | Introduction to Physical Chemistry                               |
| CHEM | 3171  |  | Physical Chemistry I   |
| CHEM | 3172  |  | Physical Chemistry II  |
| CHEM | 3173  |  | Physical Chemistry Laboratory                                    |
| CHEM | 3262  |  | Biochemistry Laboratory (Same as BIOC 3262 AND BISC 3262)        |
| CHEM | 3564  |  | Lipid Biotechnology  |
| CHEM | 4113  |  | Chemical Instrumentation   |
| CHEM | 4122  |  | Instrumental Analytical Chemistry                                |

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| CHEM | 4123 |  | Instrumental Analytical Chemistry Laboratory |
| CHEM | 4134 |  | Inorganic Chemistry                          |

**NOTE:**

**The following CSCI courses are restricted to either Computer Science majors or Computer Science majors and minors only.**

|      |      |  |   |
|------|------|--|---|
| CSCI | 1112 |  | Algorithms and Data Structures                |
| CSCI | 1311 |  | Discrete Structures I                         |
| CSCI | 2113 |  | Software Engineering                          |
| CSCI | 2312 |  | Discrete Structures II                        |
| CSCI | 2441 |  | Database Systems and Team Projects            |
| CSCI | 2461 |  | Computer Architecture I                       |
| CSCI | 3212 |  | Algorithms                                    |
| CSCI | 3221 |  | Programming Languages                         |
| CSCI | 3313 |  | Foundations of Computing                      |
| CSCI | 3362 |  | Probability for Computer Science              |
| CSCI | 3410 |  | Systems Programming                           |
| CSCI | 3411 |  | Operating Systems                             |
| CSCI | 3462 |  | Computer Architecture II                      |
| CSCI | 3571 |  | Introduction to Bioinformatics                |
| CSCI | 4222 |  | Theory of Computer Translators                |
| CSCI | 4223 |  | Principles of Programming Languages           |
| CSCI | 4235 |  | Development of Open-Source Software           |
| CSCI | 4237 |  | Software Design for Handheld Devices          |
| CSCI | 4243 |  | Capstone Design Project I                     |
| CSCI | 4244 |  | Capstone Design Project II                    |
| CSCI | 4314 |  | Discrete Analysis-Computer Science            |
| CSCI | 4331 |  | Cryptography                                  |
| CSCI | 4341 |  | Continuous Algorithms                         |
| CSCI | 4342 |  | Computational Linear Algebra and Applications |
| CSCI | 4361 |  | Simulation Methods                            |
| CSCI | 4364 |  | Machine Learning                              |

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|------|------|--|--|
| CSCI | 4415 |  | Real-Time and Embedded Systems                 |
| CSCI | 4417 |  | UNIX System Programming                        |
| CSCI | 4418 |  | UNIX System Administration                     |
| CSCI | 4431 |  | Computer Networks I                            |
| CSCI | 4432 |  | Computer Networks II                           |
| CSCI | 4455 |  | Computer Game Design and Programming           |
| CSCI | 4511 |  | Artificial Intelligence Algorithms             |
| CSCI | 4521 |  | Introduction to Mobile Robotics                |
| CSCI | 4525 |  | Autonomous Robotics: Manipulation              |
| CSCI | 4527 |  | Introduction to Computer Vision                |
| CSCI | 4531 |  | Computer Security                              |
| CSCI | 4541 |  | Network Security                               |
| CSCI | 4551 |  | Concepts and Applications of Computer Graphics |
| CSCI | 4552 |  | Design of Computer Animation I                 |
| CSCI | 4553 |  | Design of Computer Animation II                |
| CSCI | 4554 |  | Computer Graphics I                            |
| CSCI | 4561 |  | Design of User–Interface Programs              |
| CSCI | 4572 |  | Computational Biology                          |
| CSCI | 4576 |  | Introduction to Biomedical Computing           |
| CSCI | 4577 |  | Biomedical Computing                           |

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|------|------|-----|--|
| DNSC | 2001 |     | Business Analytics II: Predictive & Prescriptive Analytics |
| DNSC | 4211 | NEW | Programming for Analytics                                  |
| DNSC | 4219 | NEW | Forecasting Analytics                                      |
| ECON | 2101 |     | Intermediate Microeconomic Theory                          |
| ECON | 2102 |     | Intermediate Macroeconomic Theory                          |
| ECON | 2103 |     | Intermediate Microeconomic Theory: A Mathematical Approach |
| ECON | 2104 |     | Intermediate Macroeconomic Theory: A Mathematical Approach |
| ECON | 2121 |     | Financial Economics  |
| ECON | 2123 |     | Introduction to Econometrics (Same as STAT 2123)           |

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|------|------|--|--|
| ECON | 2151 |  | Economic Development   |
| ECON | 2167 |  | Economics of Crime   |
| ECON | 3142 |  | Labor Economics  |
| ECON | 3162 |  | Public Finance: Taxation   |
| ECON | 3191 |  | Game Theory  |
| ECON | 3099 |  | Game Theory (AUCKLAND TRANSFER VERSION)                          |
| ECON | 3199 |  | Economics Network of Industries                                  |
| EHS  | 2107 |  | Theory & Practice of Research in a Clinical Setting              |
| EMSE | 3701 |  | Operations Research Methods                                      |
| EMSE | 4571 |  | Introduction to Programming for Analytics (previously EMSE 4574) |
| EMSE | 4572 |  | Exploratory Data Analysis (previously EMSE 4575)                 |
| FINA | 3001 |  | Intermediate Finance   |
| FINA | 3101 |  | Investment and Portfolio Management                              |
| FINA | 3201 |  | Exploring Finance with Simulation                                |
| FINA | 3301 |  | Money and Capital Markets  |
| FINA | 4001 |  | Advanced Financial Management                                    |
| FINA | 4101 |  | Applied Financial Securities Analysis                            |
| FINA | 4201 |  | Real Estate Investment   |
| FINA | 4301 |  | Financial Derivatives  |
| FINA | 4900 |  | Applied Financial Security Analysis: Fixed Income                |
| FINA | 4900 |  | Financial Models with Python                                     |
| GEOG | 2104 |  | Introduction to Cartography and GIS                              |
| GEOG | 2105 |  | Techniques of Spatial Analysis                                   |
| GEOG | 2128 |  | Geomorphology  |
| GEOG | 2129 |  | Biogeography   |
| GEOG | 3105 |  | Techniques of Spatial Analysis                                   |
| GEOG | 3106 |  | Intermediate Geographic Information Systems                      |
| GEOG | 3107 |  | Remote Sensing   |
| GEOG | 3128 |  | Geomorphology  |
| GEOG | 3195 |  | GIS: Applied Climate Change (DIS COPENHAGEN VERSION)             |

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|------|------|-------|---|
| GEOG | 3196 |       | Geographic Information Systems III                      |
| GEOG | 4307 |       | Digital Image Processing and Analysis                   |
| GEOG | 4308 |       | Programming for Geospatial Applications                 |
| GEOG | 4309 |       | GIS for Emergency Management                            |
| GEOG | 4311 |       | Open Source Solutions for Geospatial Project Management |
| GEOG | 6293 |       | Open Source Geospatial Programming                      |
| GEOG | 6305 |       | Geospatial Statistics                                   |
| GEOL | 3128 |       | Sedimentology & Stratigraphy                            |
| ISTM | 4212 | *NEW* | Data Management for Analytics                           |
| MAE  | 2131 |       | Thermodynamics  |
| MATH | 1232 |       | Single-Variable Calculus II                             |
| MATH | 2184 |       | Linear Algebra I  |
| MATH | 2185 |       | Linear Algebra I for Math Majors                        |
| MATH | 2233 |       | Multivariable Calculus                                  |
| MATH | 2971 |       | Introduction to Mathematical Reasoning                  |
| MATH | 3120 |       | Elementary Number Theory                                |
| MATH | 3125 |       | Linear Algebra II                                       |
| MATH | 3257 |       | Introduction to Complex Variables                       |
| MATH | 3342 |       | Ordinary Differential Equations                         |
| MATH | 3343 |       | Partial Differential Equations                          |
| MATH | 3359 |       | Introduction to Mathematical Modeling                   |
| MATH | 3410 |       | Mathematics of Finance                                  |
| MATH | 3411 |       | Stochastic Calculus Methods in Finance                  |
| MATH | 3553 |       | Introduction to Numerical Analysis                      |
| MATH | 3613 |       | Introduction to Combinatorics                           |
| MATH | 3632 |       | Introduction to Graph Theory                            |
| MATH | 3710 |       | Introduction to Mathematical Logic                      |
| MATH | 3720 |       | Axiomatic Set Theory                                    |
| MATH | 3730 |       | Computability Theory                                    |
| MATH | 3740 |       | Computational Complexity                                |

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|------|--------------|--|--|
| MATH | 3806         |  | Introduction to Topology                             |
| MATH | 3848         |  | Differential Geometry                                |
| MATH | 4121         |  | Introduction to Abstract Algebra I                   |
| MATH | 4122         |  | Introduction to Abstract Algebra II                  |
| MATH | 4239         |  | Real Analysis I                                      |
| MATH | 4240         |  | Real Analysis II                                     |
| MATH | 2971W        |  | Introduction to Mathematical Reasoning               |
| PHYS | 2023         |  | Modern Physics                                       |
| PHYS | 2151         |  | Intermediate Laboratory I: Techniques and Methods    |
| PHYS | 2152         |  | Intermediate Laboratory II: Instrumentation          |
| PHYS | 2163         |  | Physical and Quantum Optics                          |
| PHYS | 2183         |  | Computational Modern Physics                         |
| PHYS | 3127         |  | Biophysics: Macroscopic Physics in the Life Sciences |
| PHYS | 3128         |  | Biophysics: Microscopic Physics in the Life Sciences |
| PHYS | 3161         |  | Mechanics  |
| PHYS | 3163         |  | Physical and Quantum Optics                          |
| PHYS | 3164         |  | Thermal and Statistical Physics                      |
| PHYS | 3165         |  | Electromagnetic Theory I                             |
| PHYS | 3166         |  | Electromagnetic Theory II                            |
| PHYS | 3167         |  | Principles of Quantum Physics                        |
| PHYS | 3181         |  | Computational Physics                                |
| PHYS | 4170         |  | Solid-State Physics                                  |
| PHYS | 4175         |  | Nuclear Physics                                      |
| PSC  | 2101         |  | Scopes and Methods                                   |
| PSYC | 2101         |  | Research Methods in Psychology                       |
| PSYC | 4106 (4106W) |  | Research Lab in Sensation and Perception             |
| PSYC | 4107 (4107W) |  | Research Lab in Cognitive Neuroscience               |
| PSYC | 4201 (4201W) |  | Research Lab in Clinical/Community Psychology        |
| PSYC | 4203 (4203W) |  | Research Lab in Developmental Psychology             |
| PUBH | 2110         |  | Public Health Biology                                |

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|------|-------|--|---|
| PUBH | 3131  |  | Epidemiology: Measuring Health and Disease            |
| PUBH | 3152  |  | Qualitative Research Methods in Public Health         |
| PUBH | 3201  |  | Introduction to Bioinformatics                        |
| PUBH | 3202  |  | Introduction to Genomics                              |
| STAT | 2112  |  | Business and Economic Statistics II                   |
| STAT | 2118  |  | Regression Analysis                                   |
| STAT | 2123  |  | Introduction to Econometrics (Same as ECON 2123)      |
| STAT | 2183  |  | Intermediate Statistics Lab/Packages                  |
| STAT | 2183W |  | Intermediate Stat Lab/Packages                        |
| STAT | 3119  |  | Analysis of Variance                                  |
| STAT | 3187  |  | Introduction to Sampling                              |
| STAT | 3187W |  | Introduction to Sampling                              |
| STAT | 4157  |  | Introduction to Mathematical Statistics I             |
| STAT | 4158  |  | Introduction to Mathematical Statistics II            |
| STAT | 4181  |  | Applied Time Series Analysis                          |
| STAT | 4188  |  | Nonparametric Statistics Inference                    |
| STAT | 4189  |  | Mathematical Probability and Applications I           |
| STAT | 4190  |  | Mathematical Probability and Applications II          |
| STAT | 4197  |  | Fundamentals of SAS Programming for Data Management   |
| STAT | 4198  |  | Actuarial Investigations (London School of Economics) |

**(SEE DENIED BELOW ON NEXT PAGE.)**



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**DENIED:**

|      |       |   |
|------|-------|---|
| ANAT | 2150  | Human Microscopic Anatomy   |
| BADM | 2301  | Management Information Systems Technology   |
| BISC | 2331  | Insect Biology (& Lab BISC 2335)  |
| BISC | 2401  | Biodiversity in a Changing World  |
| BISC | 2454  | General Ecology   |
| BISC | 3464  | Ecology and Evolution of Societies  |
| BISC | 2202  | Cell Biology  |
| BISC | 2333  | Evolution and Extinction  |
| CE   | 2510  | Environmental Sustainability  |
| CSCI | 1012  | Introduction to Programming with Python   |
| CSCI | 1111  | Introduction to Software Development  |
| ECON | 2136  | Environmental and Natural Resource Economics  |
| ECON | 2158  | Industrial Organization   |
| ECON | 2159  | Government Regulation of the Economy  |
| ECON | 2169  | Introduction to the Economy of China  |
| ECON | 2181  | International Trade Theory and Policy   |
| ECON | 2182  | International Macroeconomic Theory and Policy   |
| ECON | 2199  | Econ of the European Union  |
| ECON | 2199  | Human Capital Theory and Application  |
| ECON | 3099  | Economic Growth (London School of Economics)  |
| ECON | 3161  | Public Finance: Expenditure Programs  |
| ECON | 3190  | Law and Economics   |
| ECON | 4198W | Proseminar in Economics   |
| EHS  | 1040  | Emergency Medical Technician- Basic Lecture   |
| EMSE | 6200  | Policy Factors in Environmental and Energy Management   |
| ENVR | 3099  | Technology of Renewable Energies (Freiburg Environmental Studies & Sustainability IES)                          |
| ENVR | 3099  | Climate & Vegetation in the Black Forest & the Swiss Alps (Freiburg Environmental Studies & Sustainability IES) |
| GEOG | 2136  | Water Resources   |

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|------|-------|--|
| GEOG | 2137  | Environmental Hazards                                      |
| GEOG | 2148  | Economic Geography   |
| GEOG | 3108  | Weather and Climate  |
| GEOG | 3218  | Arctic Systems   |
| GEOG | 4310  | Geovisualization and Cartography                           |
| GEOG | 2134W | Energy Resources   |
| IAFF | 3190  | Theories of Int'l Negotiation (London School of Economics) |
| IBUS | 4302  | International Banking                                      |
| IBUS | 4402  | Managing - Developing Countries                            |
| IBUS | 4404  | Global Energy  |
| MUS  | 2662  | Introduction to Digital Musicianship                       |
| NSC  | 2150  | Navigation   |
| PSYC | 2011  | Abnormal Psychology  |
| PSYC | 2012  | Social Psychology  |
| PSYC | 2014  | Cognitive Psychology                                       |
| PSYC | 3099  | Developmental Disorders                                    |
| PSYC | 3099  | Psychology of Time (DIS Copenhagen)                        |
| PSYC | 3099  | European Clinical Psychology                               |
| PSYC | 3118  | Neuropsychology  |
| PUBH | 3130  | Health Services Management and Economics                   |
| PUBH | 3151W | Current Issues in Bioethics                                |