

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 <u>Course Substitution Request</u> 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.

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
BADM	4801	*NEW*	Strategy Formulation and Implementation
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

Approved Courses:

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BISC	2220	Developmental Neurobiology
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
СНЕМ	2085	Environmental Chemistry
СНЕМ	2122	Introductory Quantitative Analysis
СНЕМ	2123	Introductory Quantitative Analysis Laboratory
СНЕМ	2123W	Introductory Quantitative Analysis Laboratory
СНЕМ	2151	Organic Chemistry I
СНЕМ	2153	Organic Chemistry Lab I
СНЕМ	2152	Organic Chemistry II
СНЕМ	2154	Organic Chemistry Laboratory II
СНЕМ	3140	Geochemistry
СНЕМ	3165	Biochemistry I
СНЕМ	3166	Biochemistry II
СНЕМ	3166W	Biochemistry II
СНЕМ	3170	Introduction to Physical Chemistry
СНЕМ	3171	Physical Chemistry I
СНЕМ	3172	Physical Chemistry II
CHEM	3173	Physical Chemistry Laboratory
СНЕМ	3262	Biochemistry Laboratory (Same as BIOC 3262 AND BISC 3262)
CHEM	3564	Lipid Biotechnology
CHEM	4113	Chemical Instrumentation

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СНЕМ	4122	Instrumental Analytical Chemistry		
СНЕМ	4123	Instrumental Analytical Chemistry Laboratory		
СНЕМ	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	4331	Cryptography		
CSCI	4341	Continuous Algorithms		
CSCI	4342	Computational Linear Algebra and Applications		
CSCI	4364	Machine Learning		
CSCI	4415	Real-Time and Embedded Systems		

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CSCI	4417	UNIX System Programming
CSCI	4418	UNIX System Administration
CSCI	4431	Computer Networks I
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
Note:		The following DATS courses are restricted to students double majoring or minoring in DATS. Students must check the Schedule of Classes for specific restrictions.
DATS	2102	Data Visualization for Data Science
DATS	2103	Data Mining for Data Science
DATS	2104	Data Warehousing for Data Science
DNSC	2001	Business Analytics II: Predictive & Prescriptive Analytics
DNSC	4211	Programming for Analytics
DNSC	4219	Forecasting Analytics
ECON	2101	Intermediate Microeconomic Theory

Intermediate Macroeconomic Theory

ECON

2102

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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)
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

Updated 2/5/2024 GEOG 3106 Intermediate Geographic Information Systems 3107 GEOG Remote Sensing GEOG 3128 Geomorphology GIS: Applied Climate Change (DIS COPENHAGEN VERSION) GEOG 3195 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** 6305 GEOG **Geospatial Statistics** GEOL Sedimentology & Stratigraphy 3128 ISTM 4212 Data Management for Analytics MAE Thermodynamics 2131 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

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MATH	3710	Introduction to Mathematical Logic
MATH	3720	Axiomatic Set Theory
MATH	3730	Computability Theory
MATH	3740	Computational Complexity
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

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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	
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.)

Updated 2/5/2024 **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	