

MEMORANDUM

TO: Deans and Chairs

FROM: Heather Morgan, Assistant Registrar

DATE: August 26, 2026

SUBJECT: Minor Change Bulletin No. 1

The courses listed below reflect the minor curricular changes approved by the catalog editor since approval of the last Minor Change Bulletin. The column to the far right indicates the date each change becomes effective.

Subject	Course Number	New Revise Drop	Current	Proposed	Effective Date
ACCTG	440	Revise	Advanced Auditing 3 Course Prerequisite: ACCTG 439 or concurrent enrollment. Auditing theory application and data analysis. Typically offered Spring.	<u>Applied Auditing</u> 3 Course Prerequisite: ACCTG 439 or concurrent enrollment. Auditing theory application and data analysis. Typically offered Spring.	1-27
ACCTG	596	Revise	Doctoral Topics 3 May be repeated for credit; cumulative maximum 15 credits. Course Prerequisite: Admission to PhD programs in business. Advanced topics in accounting.	<u>Behavioral Research in Accounting</u> 3 May be repeated for credit; cumulative maximum 15 credits. Course Prerequisite: Admission to PhD programs in business. Advanced topics in accounting.	8-26
ANTH	404	Revise	[CAPS] The Self in Culture 3 Course Prerequisite: One course at the 100-level and one course at the 200-level in any of the following subjects: AMER ST, ANTH, ART, CES, COM, ENGLISH, H D, HISTORY, HUMANITY, PHIL, POL S, PSYCH, SOC, or WGSS; junior standing. Survey of anthropological theories exploring self in Western/non-Western cultures through dreams, history, and human development. Typically offered Fall and Spring.	<u>[CAPS] The Self in Culture</u> 3 Course Prerequisite: <u>At least one social science, college-level course among: ANTH, CES, COM, CRM J, H D, POL S, PSYCH, SOC, or WGSS; minimum sophomore standing. Survey of social science theories exploring cross-cultural and cross-species empirical findings; can the social sciences help us navigate real life?</u> Typically offered Fall and Spring.	8-26

ANTH	514	Revise	Ceramic Analysis 4 (3-3) Basic concepts, methods, and approaches used in the analysis of archaeological pottery. Typically offered Fall.	Ceramic Analysis 3 Basic concepts, methods, and approaches used in the analysis of archaeological pottery. Typically offered Fall.	8-26
ANTH	571	Revise	Stable Isotope Analysis in Anthropology 4 (3-3) Lab and seminar course on stable isotope applications, methods, and interpretations within the field of Anthropology. Typically offered Even Years - Spring.	Stable Isotope Analysis in Anthropology 3 Seminar course covering stable isotope methods, applications, and interpretations within the field of anthropology. Typically offered Even Years - Spring.	1-27
ANTH	591	Revise	Special Topics in Anthropology 3 May be repeated for credit; cumulative maximum 9 credits. Examination of current areas of anthropological theory and research. Typically offered Fall and Spring.	Special Topics in Anthropology 3 May be repeated for credit; cumulative maximum 15 credits. Examination of current areas of anthropological theory and research. Typically offered Fall and Spring.	8-26
ART	555	Revise	Critical Practices V 3-6 May be repeated for credit; cumulative maximum 36 credits. Studio practice, critical analysis of the student's own and others' work, investigation of critical theory and visual culture through display and making art via a variety of disciplines. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	Critical Practices V 3-6 May be repeated for credit; cumulative maximum 36 credits. Studio practice, critical analysis of the student's own and others' work, investigation of critical theory and visual culture through display and making art via a variety of disciplines. Typically offered Fall and Spring.	8-26
BIOLOGY	420	Revise	Plant Physiology 3 Course Prerequisite: BIOLOGY 106 or 120. Water relations, mineral nutrition, photosynthesis, respiration, and growth of plants. Recommended: Organic chemistry.	Plant Physiology 3 Course Prerequisite: BIOLOGY 106 or 120. Water relations, mineral nutrition, photosynthesis, respiration, and growth of plants. Recommended: Organic chemistry. <u>Cooperative: Open to UI degree-seeking students.</u>	8-26
BIOMDSCI	567	Revise	Mechanisms and Applications of Virology 1 Course Prerequisite: BIOMDSCI 563. An examination of primary research centered around an ever-growing list of contemporary viral threats to	Mechanisms and Applications of Virology 1 An examination of primary research centered around an ever-growing list of contemporary viral threats to provide a comprehensive understanding of advanced	8-26

			provide a comprehensive understanding of advanced virology and its real-world implications. Typically offered Fall.	virology and its real-world implications. Typically offered Fall.	
CE	414	Revise	Structural Design Loads and Load Paths 3 Course Prerequisite: CE 330 with a C or better; STAT 360 or concurrent enrollment, or STAT 370 or concurrent enrollment; admitted to the major in Civil Engineering. Understanding of load, load path determination techniques, performance of various materials, and the interface between material design standards and building codes. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	<u>Structural Load Paths and Analysis</u> 3 Course Prerequisite: CE 330 with a C or better; STAT 360 or concurrent enrollment, or STAT 370 or concurrent enrollment; admitted to the major in Civil Engineering. Understanding of load, load path determination techniques, and performance of various building materials. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	8-26
CE	415 / 515	Revise	Environmental Measurements 3 (1-6) Course Prerequisite: CE 341; STAT 360 or concurrent enrollment or STAT 370 or concurrent enrollment; admitted to the major in Civil Engineering. Theory and laboratory measurement techniques used in analyzing environmental quality parameters. Required preparation for graduate students must include CE 341. Credit not granted for both CE 415 and CE 515. Offered at 400 and 500 level. Typically offered Fall. Cooperative: Open to UI degree-seeking students.	<u>Environmental Measurements</u> 3 (1-6) Course Prerequisite: CE 341; STAT 360 or concurrent enrollment or STAT 370 or concurrent enrollment; admitted to the major in Civil Engineering. <u>Sample collection methods and laboratory techniques to measure common air and water pollutants.</u> Required preparation for graduate students must include CE 341. Credit not granted for both CE 415 and CE 515. Offered at 400 and 500 level. Typically offered Fall. Cooperative: Open to UI degree-seeking students.	8-26
CE	425 / 525	Revise	Soil and Site Improvement 3 Course Prerequisite: CE 317 with a C or better; admitted to the major in Civil Engineering. Compaction theory and methods; deep densification of soils; advanced consolidation theory, preloading, vertical drains, chemical stabilization,	<u>Soil and Site Improvement</u> 3 Course Prerequisite: CE 317 with a C or better; admitted to the major in Civil Engineering. <u>Compaction theory and methods; deep densification of soils; advanced consolidation theory, preloading, vertical drains, chemical stabilization,</u>	8-26

			grouting; design with geosynthetics. Required preparation for graduate students must include CE 317. Credit not granted for both CE 425 and CE 525. Offered at 400 and 500 level. Typically offered Fall. Cooperative: Open to UI degree-seeking students.	<u>grouting; use of geosynthetics.</u> Required preparation for graduate students must include CE 317. Credit not granted for both CE 425 and CE 525. Offered at 400 and 500 level. Typically offered Fall. Cooperative: Open to UI degree-seeking students.	
CE	435	Revise	Foundations 3 Course Prerequisite: CE 317 with a C or better; admitted to the major in Civil Engineering. Site investigation; bearing capacity; settlement and design of shallow foundations, piles and piers; design of retaining walls. Typically offered Spring. Cooperative: Open to UI degree-seeking students.	Foundations 3 Course Prerequisite: CE 317 with a C or better; admitted to the major in Civil Engineering. <u>Site investigation; bearing capacity and settlement; shallow foundations, piles and piers; retaining walls.</u> Typically offered Spring. Cooperative: Open to UI degree-seeking students.	8-26
CE	437	Revise	Structural Composites Design 3 Course Prerequisite: CE 330. Behavior, analysis and design of fiber-reinforced plastic composite structures; micro, ply and laminate mechanics; reinforcement of concrete and wood.	Structural Composites 3 Course Prerequisite: CE 330. <u>Behavior, analysis and mechanics of fiber-reinforced plastic composite structures; micro, ply and laminate mechanics; reinforcement of concrete and wood.</u>	8-26
CE	442	Revise	Water and Wastewater Treatment Design 3 Course Prerequisite: CE 341 with a C or better; admitted to the major in Civil Engineering or Environmental Science. Water and wastewater treatment processes and design. Typically offered Spring. Cooperative: Open to UI degree-seeking students.	Water and Wastewater Treatment 3 Course Prerequisite: CE 341 with a C or better; admitted to the major in Civil Engineering or Environmental Science. Water and wastewater treatment processes and systems. Typically offered Spring. Cooperative: Open to UI degree-seeking students.	8-26
CE	450	Revise	Designing Water Resource Systems 3 Course Prerequisite: CE 351 with a C or better; E E 221 or CE 321; admitted to the major in Civil Engineering. Design and implementation of engineered hydraulic and hydrologic systems; site assessment; distribution	Hydraulic Engineering 3 Course Prerequisite: CE 351 with a C or better; E E 221 or CE 321; admitted to the major in Civil Engineering. Analysis and implementation of engineered hydraulic and hydrologic systems; site assessment; distribution	8-26

			networks; remediation systems; sustainable use; restoration; project based. Cooperative: Open to UI degree-seeking students.	networks; remediation systems; sustainable use; restoration; project based. Cooperative: Open to UI degree-seeking students.	
CE	476	Revise	Pavement Evaluation and Rehabilitation 3 Course Prerequisite: CE 317; admitted to the major in Civil Engineering. Engineering concept and information needed to maintain, evaluate, repair and rehabilitate pavements and design of flexible and rigid overlays. Typically offered Fall. Cooperative: Open to UI degree-seeking students.	Pavement Evaluation and Rehabilitation 3 Course Prerequisite: CE 317; admitted to the major in Civil Engineering. <u>Engineering practices to maintain, evaluate, repair and rehabilitate pavements and use of flexible and rigid overlays.</u> Typically offered Fall. Cooperative: Open to UI degree-seeking students.	8-26
CES	244	Revise	[SSCI] Critical Globalizations 3 Critical examination of the historical trajectory and contemporary practices, institutions and policies that make up globalization.	[SSCI] Cultures of Disposability: Waste, Value, and Power 3 <u>Introduces students to the cultural and political factors that make peoples, goods, and services disposable in a contemporary globalized society.</u>	1-27
CHEM	361	Revise	Health Physics and Radiation Shielding 3 (2-3) Course Prerequisite: Concurrent enrollment in CHEM 101 or CHEM 105. Effects of ionizing radiation on the environment and the human body, with an emphasis on radiation safety, including atoms and energy, discoveries in radiation physics, interactions with matter, nuclear fission, naturally occurring radiation and radioactivity, environmental dispersion, radiation shielding, internal radiation doses, nuclear criticality, statistics in radiation physics, and health physics scenarios. Typically offered Fall. Cooperative: Open to UI degree-seeking students.	Health Physics and Radiation Shielding 3 Course Prerequisite: Concurrent enrollment in CHEM 101 or CHEM 105. Effects of ionizing radiation on the environment and the human body, with an emphasis on radiation safety, including atoms and energy, discoveries in radiation physics, interactions with matter, nuclear fission, naturally occurring radiation and radioactivity, environmental dispersion, radiation shielding, internal radiation doses, nuclear criticality, statistics in radiation physics, and health physics scenarios. Typically offered Fall. Cooperative: Open to UI degree-seeking students.	8-26
CHEM	543	Revise	Bioorganic Chemistry 3 Chemistry of biological	Bioorganic Chemistry 3 Chemistry of biological	8-26

			systems, medicinal chemistry, protein chemistry, enzyme mechanisms and inhibitors. Recommended preparation includes two semesters of undergraduate organic chemistry and one semester of undergraduate biochemistry. Typically offered Spring.	systems, medicinal chemistry, protein chemistry, enzyme mechanisms and inhibitors. Recommended preparation includes two semesters of undergraduate organic chemistry and concurrent enrollment in undergraduate biochemistry. <u>Undergraduates may enroll with departmental permission.</u> Typically offered Spring.	
DATA	461	Revise	Mathematical Foundations of AI 3 Course Prerequisite: DATA 121 or MATH 171. Foundational AI topics including linear algebra, optimization, graph theory, graph neural networks, manifold learning, kernel methods, function spaces, probabilistic and decision-theoretic models, and ethical considerations. Typically offered Fall and Spring.	Mathematical Foundations of AI 3 Course Prerequisite: <u>DATA 121 or MATH 171; MATH/DATA 225.</u> Foundational AI topics including linear algebra, optimization, graph theory, graph neural networks, manifold learning, kernel methods, function spaces, probabilistic and decision-theoretic models, and ethical considerations. Typically offered Fall and Spring.	8-26
ECONS	315	Revise	Machine Learning for Economists 3 Course Prerequisite: ECONS 215; ECONS 310 or STAT 212; ECONS 311. Theory and methods of machine learning with applications to the study of economic and other phenomena. Typically offered Spring.	Machine Learning for Economists 3 Course Prerequisite: <u>ECONS 310 or STAT 212.</u> Theory and methods of machine learning with applications to the study of economic and other phenomena. Typically offered Spring.	8-26
ECONS	431	Revise	Computational Economics 3 Course Prerequisite: ECONS 301. Nature and practice of environmental policy analysis using economics concepts and the analysis of models applied to natural resource problems and issues.	Computational Economics 3 Course Prerequisite: <u>ECONS 301. Computational tools for solving a broad range of microeconomic and macroeconomic models from partial and general equilibrium models to dynamic models, growth modeling, neural nets, and portfolio models.</u>	8-26
ENGR	101	Revise	Engineering Fundamentals I 1 Course Prerequisite: ENGR 107	Engineering Fundamentals I 1 Course Prerequisite: <u>MATH 171</u>	8-26

			with a C or better or concurrent enrollment, or MATH 171 with a C or better or concurrent enrollment. Introduction to engineering programs (part 1) discussing resources, opportunities, and knowledge and skills necessary to succeed in engineering. Typically offered Fall and Spring. S, F grading.	<u>or ENGR 107 with a C or better or concurrent enrollment; less than 45 total credits.</u> Introduction to engineering programs (part 1) discussing resources, opportunities, and knowledge and skills necessary to succeed in engineering. Typically offered Fall and Spring. S, F grading.	
HISTORY	438	Revise	Topics in Public History V 1-3 May be repeated for credit; cumulative maximum 3 credits. Public history applications, methods and careers in specific public history fields.	Topics in Public History V 1-3 May be repeated for credit; cumulative maximum 3 credits. Public history applications, methods and careers in specific public history fields. <u>Cooperative: Open to UI degree-seeking students.</u>	1-27
MATH	364	Revise	Principles of Optimization 3 Course Prerequisite: MATH 202, 220, 225, or 230. Algebra of linear inequalities; duality; graphs, transport networks; linear programming; special algorithms; nonlinear programming; selected applications. Typically offered Fall and Spring.	Principles of Optimization 3 Course Prerequisite: MATH 202, 220, 225, or 230. Algebra of linear inequalities; duality; graphs, transport networks; linear programming; special algorithms; nonlinear programming; selected applications. <u>Typically offered Fall.</u>	5-26
MATH	512	Revise	Ordinary Differential Equations 3 Existence of solutions; linear systems; qualitative behavior, especially stability; periodic solutions. Required preparation must include a year-long sequence in advanced calculus or real analysis. Typically offered Even Years - Fall. Cooperative: Open to UI degree-seeking students.	<u>Dynamical Systems 3</u> <u>Existence and uniqueness of solutions; linear and nonlinear systems; qualitative behavior, especially stability; periodic solutions; bifurcation theory; applications in science and engineering. Recommended preparation: MATH 420 and MATH 501 or equivalent.</u> Typically offered Even Years - Fall. Cooperative: Open to UI degree-seeking students.	8-26
MATH	545	Revise	Numerical Analysis of Parabolic and Hyperbolic PDEs 3 Numerical solutions of parabolic and hyperbolic partial differential equations with emphasis on finite difference	<u>Numerical Analysis of Linear PDEs 3</u> <u>Numerical methods for solving linear partial differential equations, including elliptic, parabolic, and hyperbolic problems. Topics include finite</u>	8-26

			methods; topics include: finite difference; stability, consistency, and convergence; shocks; conservation of forms. Required preparation must include numerical analysis. Typically offered Odd Years - Spring. Cooperative: Open to UI degree-seeking students.	<u>difference and finite element methods; stability, consistency, and convergence; weak formulations; and error analysis.</u> Typically offered Odd Years - Spring.	
MATH	546	Drop	Numerical Analysis of Elliptic PDEs 3 Numerical solutions of elliptic partial differential equations with emphasis on finite element methods; finite difference; error analysis. Required preparation must include numerical analysis. Typically offered Even Years - Fall. Cooperative: Open to UI degree-seeking students.	--N/A--	8-26
MATH	575	Drop	Asset Pricing in Financial Engineering 3 Mathematical methods for various models on valuation of stocks and options, with rigorous mathematical analysis on pricing and hedging techniques. Recommended preparation: Advanced calculus and some knowledge on differential equations. Typically offered Odd Years - Fall. Cooperative: Open to UI degree-seeking students.	--N/A--	8-26
MATH	576	Drop	Quantitative Risk Management 3 Fundamental concepts in modern risk theory and mathematical methods in quantitative risk management; coherent risk measures, volatility modeling, multivariate dependence analysis using copulas, risk aggregation and allocation, and extreme value theory. Typically offered Even Years - Spring. Cooperative: Open to UI degree-seeking students.	--N/A--	8-26

ME / MSE	241	Revise	Engineering Computations 3 Course Prerequisite: MATH 273 with a C or better or concurrent enrollment; 4 credits of PHYSICS 201 with a C or better or concurrent enrollment, or PHYSICS 201 and 211 both with a C or better, or both with concurrent enrollment. Introduction to the computational methods used for solving numerical problems in engineering. (Crosslisted course offered as ME 241, MSE 241.) Typically offered Fall and Spring.	Engineering Computations 3 Course Prerequisite: MATH 273 with a C or better or concurrent enrollment; PHYSICS 205 with a C or better or concurrent enrollment, or 4 cr of PHYSICS 201 with a C or better or concurrent enrollment, PHYSICS 201 and PHYSICS 211 with a C or better or concurrent enrollment in both. Introduction to the computational methods used for solving numerical problems in engineering. (Crosslisted course offered as ME 241, MSE 241.) Typically offered Fall and Spring.	8-26
ME	301	Revise	Fundamentals of Thermodynamics 3 Course Prerequisite: 4 credits of PHYSICS 201 with a grade of C or better, or PHYSICS 201 and 211, both with a C or better. Thermodynamic properties of matter, ideal and real gases, work and heat, first and second laws and their application to engineering systems. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	Fundamentals of Thermodynamics 3 Course <u>Prerequisite: PHYSICS 205, or PHYSICS 201 and PHYSICS 211.</u> Thermodynamic properties of matter, ideal and real gases, work and heat, first and second laws and their application to engineering systems. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	8-26
ME	313	Revise	Engineering Analysis 3 (2-3) Course Prerequisite: MATH 315 or concurrent enrollment; CE 215; ME 116; E E 221, CPT S 121, CPT S 131, CPT S 251, ME 241, or MSE 241. Analysis and modeling of engineering problems utilizing numerical and mathematical techniques and computers. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	Engineering Analysis 3 (2-3) Course <u>Prerequisite: MATH 315 or concurrent enrollment; CE 215; ME 116; ME 2XX, CPT S 121, CPT S 131, CPT S 251, ME 241, or MSE 241.</u> Analysis and modeling of engineering problems utilizing numerical and mathematical techniques and computers. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	8-26
MED CLIN	643	Revise	Virtual - Clinical Cases: Neurology 2 May be repeated for credit; cumulative maximum 2 credits. Course Prerequisite: MED CLIN 524 and preceptor	Virtual - Clinical Cases: Neurology 2 Course Prerequisite: MED CLIN 524 and preceptor required. A self-directed online course involving	5-26

			required. A self-directed online course involving review of neurology cases selected by faculty. S, F grading.	review of neurology cases selected by faculty. S, F grading.	
NEUROSCI / <u>VET PH</u>	531	Revise	Neuroscience Laboratory Rotation 1 (0-3) May be repeated for credit; cumulative maximum 2 credits. Fourteen-week rotation through each of two research laboratories; learning procedures and techniques in neuroscience. Typically offered Fall and Spring. S, F grading.	Neuroscience Laboratory Rotation 1 (0-3) May be repeated for credit; cumulative maximum 2 credits. Fourteen-week rotation through each of two research laboratories; learning procedures and techniques in neuroscience. <u>(Crosslisted course offered as NEUROSCI 531, VET PH 531.)</u> Typically offered Fall and Spring. S, F grading.	8-26
NURS ADV	527	Revise	Systems Leadership Practicum 2 Course Prerequisite: NURS ADV 524; NURS ADV 525; NURS ADV 526; and concurrent enrollment in NURS ADV 701. Collaboration with a mentor in a clinical nurse leadership role for practice experiences necessary to complete capstone project.	Clinical Systems Leadership: Practicum 2 Course <u>Prerequisite: NURS ADV 524; NURS ADV 525; NURS ADV 526; and concurrent enrollment in NURS ADV 528. Develops competencies in the role of nurse leader for practice settings.</u>	8-26
PHARMEDS	421	Revise	[M] Scientific Communication: Writing and Speaking 3 Course Prerequisite: Admitted to the Pharmaceutical and Medical Sciences BS program. Introduction to scientific writing and oral communications in the biomedical sciences. Typically offered Fall and Spring.	[M] Scientific Communication: Writing and Speaking 3 Course Prerequisite: Admitted to the Pharmaceutical and Medical Sciences BS program. Introduction to scientific writing and oral communications in the biomedical sciences. <u>Typically offered Spring.</u>	8-26
PHYSICS	455 / 555	Revise	Quantum Technologies and Computation 3 Fundamentals of quantum mechanics required for quantum computing and quantum information science; technologies and platforms that enable quantum applications to computing, simulation, and advance sensing. Credit not granted for both PHYSICS 455 and PHYSICS 555. Offered at	Quantum Technologies and Computation 3 Fundamentals of quantum mechanics required for quantum computing and quantum information science; technologies and platforms that enable quantum applications to computing, simulation, and advance sensing. Credit not granted for both PHYSICS 455 and PHYSICS 555. Offered at 400 and 500 level. Typically	1-27

			400 and 500 level. Typically offered Fall.	offered Fall. <u>Cooperative: Open to UI degree-seeking students.</u>	
POL S	505	Revise	Qualitative Methods in Political Science 3 Use of qualitative methods in political science and public affairs research. Typically offered Fall and Spring.	<u>Qualitative Methods in Social Science 3</u> Introduction to qualitative research methods as used in social sciences; epistemological underpinnings and empirical techniques. Typically offered Fall and Spring.	8-26
PUBHLTH	495	Revise	Public Health Internship V 1-4 May be repeated for credit; cumulative maximum 4 credits. Course Prerequisite: By department permission. Internship with a public health agency, a nonprofit organization, or a private sector company that aligns with the student's chosen career path. S, F grading.	<u>Public Health Internship V 1-4</u> May be repeated for credit; cumulative maximum 4 credits. Course Prerequisite: By department permission. Internship with a public health agency, a nonprofit organization, or a private sector company that aligns with the student's chosen career path. S, F grading.	5-26
SOC	230	Revise	Society and Technology 3 Role of technology in social evolution; social impacts and shaping of technology. Recommended preparation: SOC 101. Typically offered Fall and Spring.	<u>Artificial Intelligence, Technology & Society 3</u> The relationship between technological advancement and social change; societal impacts of technology and how society shapes technological development; sociological dimensions of artificial intelligence (e.g., bias, surveillance, environmental impact, power/inequality) Recommended preparation: SOC 101.	8-26
SOC	321	Revise	Understanding the Social World with Data 4 Making sense of data and storytelling with numbers. Gain career-related skills in analyzing, interpreting, and reporting on social data. Typically offered Fall, Spring, and Summer.	Understanding the Social World with Data 3 Making sense of data and storytelling with numbers. Gain career-related skills in analyzing, interpreting, and reporting on social data. Typically offered Fall, Spring, and Summer.	1-27
SOC	415	Revise	[CAPS] [M] Globalization 3 Course Prerequisite: Junior standing. Structural foundations of global social change; theories of intersocietal interactions and	<u>[CAPS] Globalization 3</u> Course Prerequisite: Junior standing. Structural foundations of global social change; theories of intersocietal interactions and	1-27

			interdependencies. Recommended preparation: SOC 101. Typically offered Fall.	interdependencies. Recommended preparation: SOC 101. Typically offered Fall.	
SOC	511	Revise	Data Management 3 Core concepts and procedures regularly used in the quantitative analysis of sociological data.	<u>Data Management and Visualization</u> 3 <u>May be repeated for credit; cumulative maximum 6 credits. Core concepts and procedures regularly used in the quantitative analysis and visualization of sociological data.</u>	8-26
SOC	523	Revise	Qualitative Methods Practicum 3 Introduction to qualitative research methods as used in social sciences; epistemological underpinnings and empirical techniques. Recommended preparation: SOC 520. Typically offered Fall. Cooperative: Open to UI degree-seeking students.	<u>Qualitative Methods in Social Science</u> 3 Introduction to qualitative research methods as used in social sciences; epistemological underpinnings and empirical techniques. Recommended preparation: SOC 520. Typically offered Fall. Cooperative: Open to UI degree-seeking students.	8-26
SOIL SCI	452	Revise	The Landscape of Soil 3 (2-3) Course Prerequisite: SOIL SCI 201. The study of soils as natural bodies, including morphology, formation, and classification. A five-day field trip is required. Typically offered Spring.	<u>The Landscape of Soil</u> 3 (2-3) Course Prerequisite: SOIL SCI 201. The study of soils as natural bodies, including morphology, formation, and classification. <u>Field trips are required. Typically offered Even Years - Fall.</u>	8-26
SOIL SCI / STAT	508	Revise	Environmental Spatial Statistics 3 Theoretical introduction and practical training in spatial data analysis for graduate students in the environmental sciences. Required preparation must include undergraduate statistics through applied multiple regression. (Crosslisted course offered as SOIL SCI 508, STAT 508.) Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	<u>Environmental Spatial Statistics</u> 3 Theoretical introduction and practical training in spatial data analysis for graduate students in the environmental sciences. Required preparation must include undergraduate statistics through applied multiple regression. (Crosslisted course offered as SOIL SCI 508, STAT 508.) <u>Offered infrequently.</u> Cooperative: Open to UI degree-seeking students.	8-26
SPANISH	450	Revise	[CAPS] [M] Seminar in Spanish Studies - Themes 3 May be repeated for credit;	<u>[CAPS] [M] Seminar in Spanish Studies - Themes 3</u> May be repeated for credit;	8-26

			cumulative maximum 6 credits. Course Prerequisite: One [HUM]; one [ARTS]; two SPANISH 300-level courses excluding SPANISH 305; junior standing. Seminar on important themes in Spanish studies. Taught in Spanish. Typically offered Fall and Spring.	cumulative maximum 6 credits. Course Prerequisite: One [HUM]; one [ARTS]; two SPANISH 300-level courses excluding SPANISH 305; junior standing. <u>Literature seminar on important themes in Spanish studies.</u> Taught in Spanish. Typically offered Fall and Spring.	
SPANISH	451	Revise	[CAPS] [M] Seminar in Spanish Studies - Authors 3 May be repeated for credit; cumulative maximum 6 credits. Course Prerequisite: One [HUM]; one [ARTS]; two SPANISH 300-level courses excluding SPANISH 305; junior standing. Seminar on important authors in Spanish studies. Taught in Spanish.	[CAPS] [M] Seminar in Spanish Studies - Authors 3 May be repeated for credit; cumulative maximum 6 credits. Course Prerequisite: One [HUM]; one [ARTS]; two SPANISH 300-level courses excluding SPANISH 305; junior standing. <u>Literature seminar on important authors in Spanish studies.</u> Taught in Spanish.	8-26
STAT	410 / 510	Revise	Topics in Probability and Statistics 3 May be repeated for credit; cumulative maximum 6 credits. Current topics in probability and statistics of mutual interest to faculty and students. Recommended preparation: One 3-hour 300-level STAT course. Credit not granted for both STAT 410 and STAT 510. Offered at 400 and 500 level.	Topics in Probability and Statistics 3 May be repeated for credit; cumulative maximum 6 credits. Current topics in probability and statistics of mutual interest to faculty and students. Recommended preparation: One 3-hour 300-level STAT course. Credit not granted for both STAT 410 and STAT 510. Offered infrequently. Offered at 400 and 500 level. <u>Cooperative: Open to UI degree-seeking students.</u>	8-26
STAT / MATH	456 / 556	Revise	Introduction to Statistical Theory 3 Sampling distributions; hypothesis testing and estimation; maximum likelihood; likelihood ratio tests; theory of least squares; nonparametrics. Recommended preparation: One 3-credit 400-level STAT or probability course. (Crosslisted course offered as STAT 456, MATH 456.) Credit not granted for more than one of STAT/MATH	Introduction to Statistical Theory 3 Course Prerequisite: STAT 430 or 443. Sampling distributions; hypothesis testing and estimation; maximum likelihood; likelihood ratio tests; theory of least squares; nonparametrics. Recommended preparation: One 3-credit 400-level STAT or probability course. (Crosslisted course offered as STAT 456, MATH 456.) Credit not granted for	8-26

			456 or STAT 556. Offered at 400 and 500 level. Typically offered Spring.	more than one of STAT/MATH 456 or STAT 556. Offered at 400 and 500 level. Typically offered Spring. <u>Cooperative: Open to UI degree-seeking students.</u>	
STAT	512	Revise	Analysis of Variance of Designed Experiments 3 (2-2) Principles of experimental design and analysis and interpretation of data. Required preparation: One 3-credit 400-level STAT course. Typically offered Fall and Spring.	Analysis of Variance of Designed Experiments 3 (2-2) Principles of experimental design and analysis and interpretation of data. Required preparation: One 3-credit 400-level STAT course. Typically offered Fall and Spring. <u>Cooperative: Open to UI degree-seeking students.</u>	8-26
STAT	520	Revise	Statistical Analysis of Qualitative Data 3 Binomial, Poisson, multinomial distribution; contingency tables, Fisher's tests, log-linear models; ordinal data; applications in biology, business, psychology, and sociology. Required preparation: Linear Algebra or Calculus I; one 3-credit 400-level STAT course. Typically offered Even Years—Fall. Cooperative: Open to UI degree-seeking students.	Statistical Analysis of Qualitative Data 3 Binomial, Poisson, multinomial distribution; contingency tables, Fisher's tests, log-linear models; ordinal data; applications in biology, business, psychology, and sociology. Required preparation: Linear Algebra or Calculus I; one 3-credit 400-level STAT course. <u>Offered infrequently.</u> Cooperative: Open to UI degree-seeking students.	8-26
STAT	522	Revise	Biostatistics and Statistical Epidemiology 3 Rigorous approach to biostatistical and epidemiological methods including relative risk, odds ratio, cross-over designs, survival analysis and generalized linear models. Required preparation: Linear Algebra or Calculus I; one 3-credit 400-level STAT course. Typically offered Odd Years—Spring. Cooperative: Open to UI degree-seeking students.	Biostatistics and Statistical Epidemiology 3 Rigorous approach to biostatistical and epidemiological methods including relative risk, odds ratio, cross-over designs, survival analysis and generalized linear models. Required preparation: Linear Algebra or Calculus I; one 3-credit 400-level STAT course. <u>Offered infrequently.</u> Cooperative: Open to UI degree-seeking students.	8-26
STAT	530	Revise	Predictive Models: Foundations in Data Science 3 (2-2) Topics in regression and classification using probabilistic	Predictive Models: Foundations in Data Science 3 (2-2) Topics in regression and classification using probabilistic	8-26

			and data-based methods to build statistical foundations for data science; lab component allows methods to be implemented using data-based software of student choice. Required preparation: One 3-credit 400-level STAT course. Typically offered Spring.	and data-based methods to build statistical foundations for data science; lab component allows methods to be implemented using data-based software of student choice. Required preparation: One 3-credit 400-level STAT course. Typically offered Spring. <u>Cooperative:</u> <u>Open to UI degree-seeking students.</u>	
STAT	576	Revise	Bayesian Analysis 3 Course Prerequisite: STAT 556. Statistical principle for combining new evidence with prior beliefs, inference and simulation procedures for accommodating complex data and producing interpretable output. Recommended preparation: STAT 536. Typically offered Even Years - Fall.	Bayesian Analysis 3 Course Prerequisite: STAT 556. Statistical principle for combining new evidence with prior beliefs, inference and simulation procedures for accommodating complex data and producing interpretable output. Recommended preparation: STAT 536. Typically offered Even Years - Fall. <u>Cooperative:</u> <u>Open to UI degree-seeking students.</u>	8-26
STAT	591	Revise	Seminar in Statistics 1 May be repeated for credit; cumulative maximum 10 credits. Course prerequisite: Graduate student in the Department of Mathematics and Statistics. Current research in statistics. Typically offered Fall and Spring. S, F grading.	Seminar in Statistics 1 May be repeated for credit; cumulative maximum 10 credits. Course prerequisite: Graduate student in the Department of Mathematics and Statistics. Current research in statistics. Typically offered Fall and Spring. <u>Cooperative:</u> <u>Open to UI degree-seeking students. S, F grading.</u>	8-26
STAT	600	Revise	Special Projects or Independent Study V 1-18 May be repeated for credit. Independent study, special projects, and/or internships. Students must have graduate degree-seeking status and should check with their major advisor before enrolling in 600 credit, which cannot be used toward the core graded credits required for a graduate degree. Typically offered Fall, Spring, and Summer. S, F grading.	Special Projects or Independent Study V 1-18 May be repeated for credit. Independent study, special projects, and/or internships. Students must have graduate degree-seeking status and should check with their major advisor before enrolling in 600 credit, which cannot be used toward the core graded credits required for a graduate degree. Typically offered Fall, Spring, and Summer. <u>Cooperative:</u>	8-26

				<u>Open to UI degree-seeking students. S, F grading.</u>	
VET CLIN	587	Revise	Hospital Rotation V 3-6 May be repeated for credit. Course Prerequisite: Admission to MS or PhD in Veterinary Science program, or Internship, Residency Grad Cert in the Biomedical Sciences (Veterinary Clinical and Translational Sciences). Only 6 cr allowed for students in the MS or PhD program. Supervised practical experience in all service areas of the veterinary hospital. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	Hospital Rotation V 3-6 May be repeated for credit. <u>Course Prerequisite: Admission to the Graduate Certificate, MS, or PhD in Biomedical Sciences program.</u> Only 6 cr allowed for students in the MS or PhD program. Supervised practical experience in all service areas of the veterinary hospital. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	8-26
VET CLIN	700	Revise	Master's Research, Thesis, and/or Examination V 1-18 May be repeated for credit. Course Prerequisite: MS in Veterinary Science only. Independent research and advanced study for students working on their master's research, thesis and/or final examination. Students must have graduate degree-seeking status and should check with their major advisor/committee chair before enrolling for 700 credit. Typically offered Fall, Spring, and Summer. S, U grading.	Master's Research, Thesis, and/or Examination V 1-18 May be repeated for credit. <u>Course Prerequisite: Admission to MS or PhD in Biomedical Sciences program, or Internship, Residency Grad Cert in the Biomedical Sciences (Veterinary Clinical and Translational Sciences).</u> Independent research and advanced study for students working on their master's research, thesis and/or final examination. Students must have graduate degree-seeking status and should check with their major advisor/committee chair before enrolling for 700 credit. Typically offered Fall, Spring, and Summer. S, U grading.	8-26
VET CLIN	800	Revise	Doctoral Research, Dissertation, and/or Examination V 1-18 May be repeated for credit. Course Prerequisite: Admitted to the Veterinary Science PhD program. Independent research	Doctoral Research, Dissertation, and/or Examination V 1-18 May be repeated for credit. <u>Course Prerequisite: Admitted to the Biomedical Sciences PhD program.</u> Independent research	8-26

			and advanced study for students working on their doctoral research, dissertation and/or final examination. Students must have graduate degree-seeking status and should check with their major advisor/committee chair before enrolling for 800 credit. Typically offered Fall, Spring, and Summer. S, U grading.	and advanced study for students working on their doctoral research, dissertation and/or final examination. Students must have graduate degree-seeking status and should check with their major advisor/committee chair before enrolling for 800 credit. Typically offered Fall, Spring, and Summer. S, U grading.	
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