M E M O R A N D U M

Faculty Senate approved October 22, 2021

TO: Deans and Chairs

FROM: Becky Bitter, Sr. Assistant Registrar

DATE: October 15, 2020

SUBJECT: Minor Change Bulletin No. 3

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	Revise Drop Correction	Current	Proposed	Effective Date
ANTH / AIS	**327**	**Revise**	**[DIVR] Contemporary Native Peoples of the Americas** 3 Contemporary cultures of Native American communities emphasizing North America. (Crosslisted course offered as ANTH 327, AIS 327). ~~Recommended preparation: ANTH 101 or CES 171.~~ Typically offered Spring.	**[DIVR] Contemporary Native Peoples of the Americas** 3 Contemporary cultures of Native American communities emphasizing North America. (Crosslisted course offered as ANTH 327, AIS 327). Typically offered Spring.	**1-21**
ANTH	**370**	**Revise**	~~**Past Environments and Culture**~~ 3 ~~People and their environments~~ from the Ice Age to ~~modern time; archaeological, ecological, and biological data.~~	**The Archaeology of Climate Change** 3 Exploration of the connections between climate change and people from the Ice Age to the present in order to understand the factors that cause environmental change.	**1-21**
ANTH	**561**	**Revise**	**Current Trends in ~~Biological~~ Anthropology** 3 May be repeated for credit. Intensive review of current trends in biological anthropology.	**Current Trends in Evolutionary Anthropology** 3 May be repeated for credit. Intensive review of current trends in biological anthropology.	**1-21**

CES / ~~ANTH~~	**372**	**Revise**	**Indigenous Women in Traditional and Contemporary Societies** 3 Course Prerequisite: ANTH 101, 214, CES 101, or 171. Exploration of roles and activities of women in indigenous societies; how traditional gender roles have developed and changed. ~~(Crosslisted course offered as CES 372, ANTH 312).~~	**Indigenous Women in Traditional and Contemporary Societies** 3 Course Prerequisite: ANTH 101, 214, CES 101, or 171. Exploration of roles and activities of women in indigenous societies; how traditional gender roles have developed and changed.	**1-21**
CHE	**432**	**Revise**	**[M] Chemical Engineering Lab I** 3 (1-6) Course Prerequisite: CHE 321 and 334 with a C or better; CHE 332 with a C or better or concurrent ~~enrollment~~; CHE 352 with a C or better or concurrent ~~enrollment~~; ENGLISH 402 or 403 with a C or better; STAT 423 with a C or better; admitted to Chem Engr. Statistical design and analysis of experiments; safety; experiments in heat and mass transfer; separations, other unit operations, kinetics, control; technical reports and presentations. Typically offered Fall.	**[M] Chemical Engineering Lab I** 3 (1-6) Course Prerequisite: CHE 321 and 334 with a C or better; CHE 332 with a C or better or concurrent; CHE 352 with a C or better or concurrent; ENGLISH 402 or 403 with a C or better or concurrent; STAT 423 with a C or better; admitted to Chemical Engr. Statistical design and analysis of experiments; safety; experiments in heat and mass transfer; separations, other unit operations, kinetics, control; technical reports and presentations. Typically offered Fall.	**1-21**
CHE	**450**	**Revise**	**Chemical Process Analysis and Design I** 3 Course Prerequisite: CHE 321 with a C or better; CHE 332 with a C or better; CHE 334 with a C or better; CHE 352 with a C or better or concurrent ~~enrollment~~; ENGLISH 402 or 403 with a C or better; admitted to the major in Chemical Engineering. Chemical engineering design; computer tools; safety and environmental constraints;	**Chemical Process Analysis and Design I** 3 Course Prerequisite: CHE 321 with a C or better; CHE 332 with a C or better; CHE 334 with a C or better; CHE 352 with a C or better or concurrent; ENGLISH 402 or 403 with a C or better or concurrent; admitted to the major in Chemical Engineering. Chemical engineering design; computer tools; safety and environmental constraints; cost and	**1-21**

			cost and equipment optimization. Typically offered Fall.	equipment optimization. Typically offered Fall.	
COM	**490**	**Revise**	**Web Design and Usability** 3 Course Prerequisite: COMSTRAT 310; admitted to a major or minor in the College of Communication; senior standing. Web design with an emphasis or user-centered design and usability. Typically offered Spring.	**Web Design and Usability** 3 Course Prerequisite: COMSTRAT 310 or COM 320; admitted to a major or minor in the College of Communication; junior standing. Web design with an emphasis or user-centered design and usability. Typically offered Spring.	**1-21**
COMJOUR	**466**	**Revise**	~~**Digital Video Editing for News Reporting and**~~ **Documentary** 3 (2-3) Course Prerequisite: Admitted to a major or minor in the College of Communication. Video editing for news reporting; feature-length editing for news and public affairs topics; documentaries; visual storytelling. Typically offered Fall and Spring.	**Documentary Video** 3 (2-3) Course Prerequisite: Admitted to a major or minor in the College of Communication. Video editing for news reporting; feature-length editing for news and public affairs topics; documentaries; visual storytelling. Typically offered Fall and Spring.	**1-21**
COMSTRAT	**477**	**Revise**	**Message Design for Communication Campaigns** 3 Course Prerequisite: Admitted to a major in the College of Communication; junior standing. Theory-based design, market testing, and evaluation of messages for ~~health and~~ positive social outcomes. Typically offered Fall and Spring.	**Message Design for Communication Campaigns** 3 Course Prerequisite: Admitted to a major in the College of Communication; COMSTRAT 310; junior standing. Theory-based design, market testing, and evaluation of messages for positive social outcomes. Typically offered Fall and Spring.	**1-21**
CS	**317**	**Revise**	**Automata and Formal Languages** 3 Course Prerequisite: CS 122 with a C or better; CS 166 with a C or better~~; admitted to the major in Computer Science~~. Finite automata, regular	**Automata and Formal Languages** 3 Course Prerequisite: CS 122 with a C or better; CS 166 with a C or better. Finite automata, regular sets, pushdown automata, context-free	**1-21**

			sets, pushdown automata, context-free language, Turing machines and the halting problem. Typically offered Fall.	language, Turing machines and the halting problem. Typically offered Fall.	
CS	**420**	**Revise**	**[CAPS] Software Design Project I** 3 Course Prerequisite: CS 320 with a C or better; CS 360 with a C or better; senior standing. Development of software in a team environment; project management; unit and integration testing, bug tracking, configuration management, software process models; object-oriented design with UML. Typically offered Fall.	**[CAPS] Software Design Project I** 3 Course Prerequisite: CS 320 with a C or better; CS 360 with a C or better or concurrent enrollment; senior standing. Development of software in a team environment; project management; unit and integration testing, bug tracking, configuration management, software process models; object-oriented design with UML. Typically offered Fall.	**1-21**
CS	**421**	**Revise**	**Software Design Project II** 3 (2-3) Course Prerequisite: CS 420 with a C or better; senior standing. Large-scale software development in a team environment; software design and implementation, project management, testing and integration; teamwork skills, communication, source code management, documentation and presentations. Continuation and completion of CS 420 project. Typically offered Spring.	**Software Design Project II** 3 (2-3) Course Prerequisite: CS 420 with a C or better; admitted to the major in Computer Science; senior standing. Large-scale software development in a team environment; software design and implementation, project management, testing and integration; teamwork skills, communication, source code management, documentation and presentations. Continuation and completion of CS 420 project. Typically offered Spring.	**1-21**
CS	**427**	**Revise**	**Cryptography and Network Security** 3 Course Prerequisite: CS 166 with a C or better; CS 360 with a C or better. Computer security concepts, models and mechanism; encryption technology, formal models, policy and ethical	**Cryptography and Network Security** 3 Course Prerequisite: CS 166 with a C or better; CS 360 with a C or better; senior standing. Computer security concepts, models and mechanism; encryption technology, formal models, policy and ethical implications. Credit	**1-21**

			implications. Credit not granted for both CS 427 and CS 527. Offered at 400 and 500 level. Typically offered Spring.	not granted for both CS 427 and CS 527. Offered at 400 and 500 level. Typically offered Spring.	
CS	**440**	**Revise**	**Artificial Intelligence** 3 Course Prerequisite: CS 320 with a C or better; STAT 212 with a C or better or STAT 360 with a C or better. Knowledge representation and automated problem solving; theory and application of agent programming. Typically offered Spring.	**Artificial Intelligence** 3 Course Prerequisite: CS 320 with a C or better or concurrent enrollment; STAT 212 with a C or better or STAT 360 with a C or better. Knowledge representation and automated problem solving; theory and application of agent programming. Typically offered Spring.	**1-21**
E M	**422 / 522**	**Revise**	**~~Leadership, Supervision, and Management~~** 3 Strategies of supervision with practical application techniques presented to create individual and organizational motivation. Credit not granted for both E M 422 and 522. Offered at 400 and 500 level. Typically offered Fall.	**Leading People and Organizations** 3 Strategies of supervision with practical application techniques presented to create individual and organizational motivation. Credit not granted for both E M 422 and 522. Offered at 400 and 500 level. Typically offered Fall.	**8-21**
E M	**501**	**Drop**	**Management of Organizations** 3 Exploration of issues related to individual behavior in work organizations, including motivation, leadership, team-building, and team management skills. Credit not granted for both E M 401 and 501. Offered at 400 and 500 level. Typically offered Spring.	**--N/A--**	**8-21**
E M	**534**	**Drop**	**Contemporary Topics in Constraints Management** 3 May be repeated for credit; cumulative maximum 6 hours. Course Prerequisite: E M 526; E M 530. Contemporary	**--N/A--**	**1-21**

			teaching tools, software packages, current techniques and thought in managing complex systems using the theory of constraints.		
E M	**545**	**Drop**	**Technical Decision Analysis** 3 Decision analysis provides a structured discipline for describing, analyzing, and finalizing decisions involving uncertainty. Recommended preparation: Basic STAT course.	**--N/A--**	**8-21**
E M	**566**	**Revise**	~~**Systems Analysis and Practice**~~ 3 Problem-solving methodologies based on system concepts and design applications for complex, large-scale technical systems pertinent to program managers.	**Trade-off Analytics: Exploring the System Tradespace** 3 Problem-solving methodologies based on system concepts and design applications for complex, large-scale technical systems pertinent to program managers.	**8-21**
E M	**569**	**Drop**	**System Architecting** 3 Development and assessment of operational, functional, and physical architectures that translate to an optimal system design. Typically offered Spring.	**--N/A--**	**8-21**
E M	**575**	**Revise**	**Performance ~~Management in Technical Organizations~~** 3 Management of high technology organizations; planning, measurement, and human factors in improving high technology organizations; productivity, motivation and performance systems.	**Managing Innovation: Strategy and Performance** 3 Management of high technology organizations; planning, measurement, and human factors in improving high technology organizations; productivity, motivation and performance systems.	**8-21**
E M	**580**	**Revise**	**Quality Control and Reliability** 3 Quality analysis, modeling process, product quality, statistical process control, process	**Quality Control and Reliability** 3 Course Prerequisite: E M 503. Quality analysis, modeling process, product quality,	**8-21**

			capability studies; sampling concepts, reality models, predictions, design testing. Credit not granted for both E M 480 and E M 580. Recommended preparation: STAT 430. Offered at 400 and 500 level.	statistical process control, process capability studies; sampling concepts, reality models, predictions, design testing. Credit not granted for both E M 480 and E M 580. Recommended preparation: STAT 430. Offered at 400 and 500 level.	
E M	**585**	**Revise**	**Design of Experiments** 3 Design for quality improved products; processes and services using designed experiments, including robust/parameter design. Credit not granted for both E M 485 and E M 585. Recommended preparation: Undergraduate statistics. Offered at 400 and 500 level.	**Design of Experiments** 3 Course Prerequisite: E M 503. Design for quality improved products; processes and services using designed experiments, including robust/parameter design. Credit not granted for both E M 485 and E M 585. Recommended preparation: Undergraduate statistics. Offered at 400 and 500 level.	**8-21**
E M	**591**	**Drop**	**Strategic Management of Technology and Innovations in Engineering** 3 Management of technological innovation; integrating strategy, new product development, corporate entrepreneurship, and innovation; features action-oriented cases.	**--N/A--**	**8-21**
ENGLISH / ~~AMER ST~~	**470**	**Revise**	**Literature and Culture of the American West** 3 May be repeated for credit; cumulative maximum 6 hours. Course Prerequisite: Junior standing. Cultural exploration of American West in written texts; outsider and insider versions of reality and imagination of its diverse peoples. ~~(Crosslisted course offered as ENGLISH 470,~~	**Literature and Culture of the American West** 3 May be repeated for credit; cumulative maximum 6 hours. Course Prerequisite: Junior standing. Cultural exploration of American West in written texts; outsider and insider versions of reality and imagination of its diverse peoples. Typically offered Fall and Spring.	**1-21**

			~~AMER ST 470).~~ Typically offered Fall and Spring.		
FIN	**330**	**Correction**	**Introduction to Financial Wellbeing** 3 Course Prerequisite: ACCTG 230 or 298; ECONS 101 or 198. Introduction to financial planning including budgeting, credit, investing, retirement and estate planning, and tax considerations. Typically offered Fall and Spring.	**Introduction to Financial Wellbeing** 3 Course Prerequisite: ACCTG 230 or 298; ECONS 101 or 198; FIN 325 or concurrent enrollment. Introduction to financial planning including budgeting, credit, investing, retirement and estate planning, and tax considerations. Typically offered Fall and Spring.	**1-21**
~~FS /~~ VIT ENOL	**422~~/ 522~~**	**Revise**	**Sensory Evaluation of Food and Wine** 3 Course Prerequisite: STAT 212; FS 110 or VIT ENOL 113. Theory, principles and application of sensory evaluation techniques in appearance, aroma, flavor and texture of foods and wine. ~~(Crosslisted course offered as FS 422, VIT ENOL 422.) Credit not granted for both FS 422 and FS 522. Graduate student recommended preparation: STAT 212; FS 110 or VIT ENOL 113. Offered at 400 and 500 level.~~ Typically offered Spring. Cooperative: Open to UI degree-seeking students.	**Sensory Evaluation of Food and Wine** 3 Course Prerequisite: STAT 212; FS 110 or VIT ENOL 113. Theory, principles and application of sensory evaluation techniques in appearance, aroma, flavor and texture of foods and wine. Typically offered Spring. Cooperative: Open to UI degree-seeking students.	**1-21**
HISTORY / ASIA ~~ANTH /~~	**306**	**Revise**	**Cultures and Peoples of the Middle East** 3 Contemporary Arab cultures in a historical perspective within the framework of Western-Middle Eastern relations. (Crosslisted course offered as ~~ANTH 306,~~ ASIA 306~~, HISTORY 306~~).	**Cultures and Peoples of the Middle East** 3 Contemporary Arab cultures in a historical perspective within the framework of Western-Middle Eastern relations. (Crosslisted course offered as HISTORY 306, ASIA 306).	**1-21**
HORT / CROP_SCI	**425**	**Revise**	**CAPS] [M] Trends in Horticulture** 3 Course Prerequisite: Junior	**CAPS] [M] Trends in Horticulture** 3 Course Prerequisite: Junior	**1-21**

			standing. Critical examination of current impacts and future trends in horticulture.	standing. Critical examination of current impacts and future trends in horticulture. (Crosslisted course offered as HORT 425, CROP SCI 425.)	
MATH	**588**	**Correction**	**Topics in Computational Math** V 1-3 May be repeated for credit. Advanced topics in ~~algebra and linear algebra~~. Recommended preparation: one semester of numerical analysis. Typically offered Spring.	**Topics in Computational Math** V 1-3 May be repeated for credit. Advanced topics in computational mathematics. Recommended preparation: one semester of numerical analysis. Typically offered Spring.	**8-21**
ME	**436**	**Revise**	**Combustion Engines** 3 Course Prerequisite: ME 303. Internal combustion engines; spark ignition engines, diesels, and gas turbines. Typically offered Fall.	**Combustion Engines** 3 Course Prerequisite: ME 301; ME 303. Internal combustion engines; spark ignition engines, diesels, and gas turbines. Typically offered Fall.	**1-21**
MED CLIN	**531**	**Revise**	~~**Sub-Internship in Family Medicine**~~ 4 Course Prerequisite: MED CLIN 524. Extension of knowledge and skills in the evaluation and management of acute and chronic medical conditions treated by family physicians. May include attendance at medical conferences. H, S, F grading.	**Family Medicine - Subinternship** 4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension of knowledge and skills in the evaluation and management of acute and chronic medical conditions treated by family physicians. May include attendance at medical conferences. H, NH, S, F grading.	**1-21**
MED CLIN	**532**	**Revise**	~~**Sub-Internship in Inpatient Medicine**~~ 4 Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and range of medical problems evaluated and managed in a hospital setting. H, S, F grading.	**Internal Medicine - Subinternship** 4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and range of medical problems evaluated and managed in a	**1-21**

				hospital or ambulatory setting. H, NH, S, F grading.	
MED CLIN	**533**	**Revise**	**~~Sub Internship in General Surgery~~** 4 Course Prerequisite: MED CLIN 524. Knowledge, skills, and range of medical problems related to common surgical issues in various surgical specialties. H, S, F grading.	**Surgery - Subinternship** 4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Knowledge, skills, and range of medical problems related to common surgical issues in various surgical specialties. H, NH, S, F grading.	**1-21**
MED CLIN	**534**	**Revise**	**~~Sub Internship in Pediatrics~~** 4 Course Prerequisite: MED CLIN 524. Knowledge and skills in caring for pediatric patients admitted to the hospital; exposure to the wide range of medical diagnoses that lead to the admission of pediatric patients. H, S, F grading.	**Pediatrics - Subinternship** 4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524 and at least 2 credits of MED CLIN 588; exceptions granted by the Associate Dean for Curriculum or designee. Knowledge and skills in caring for pediatric patients admitted to the hospital or ambulatory setting; exposure to the wide range of medical diagnoses that lead to the admission of pediatric patients. H, NH, S, F grading.	**1-21**
MED CLIN	**535**	**Revise**	**~~Sub Internship in Psychiatry~~** 4 Course Prerequisite: MED CLIN 524. Knowledge, skills, and attitudes necessary to diagnose and treat a wide range of routine psychiatric, medical, and behavioral problems; exposure to the breadth of undifferentiated patient complaints presenting in both acute and chronic treatment settings. H, S, F grading.	**Psychiatry - Subinternship** 4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Knowledge, skills, and attitudes necessary to diagnose and treat a wide range of routine psychiatric, medical, and behavioral problems; exposure to the breadth of undifferentiated patient complaints presenting in both acute and chronic treatment settings. H, NH, S, F grading.	**1-21**

MED CLIN	**536**	**Revise**	**~~Sub Internship in Obstetrics and Gynecology~~** 4 Course Prerequisite: MED CLIN 524. Knowledge, skills, and range of women's health issues with concentration on common obstetrical and gynecological conditions; introduction to serious, less common conditions. H, S, F grading.	**Obstetrics and Gynecology - Subinternship** 4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Knowledge, skills, and range of women's health issues with concentration on common obstetrical and gynecological conditions; introduction to serious, less common conditions. H, NH, S, F grading.	**1-21**
MED CLIN	**537**	**Revise**	**~~Clinical Rotation in Emergency Medicine~~** 4 Course Prerequisite: MED CLIN 524. Knowledge, skills, and range of medical problems treated by emergency physicians; breadth of undifferentiated patient complaints presenting in an acute setting. H, S, F grading.	**Emergency Medicine - Emergency Medicine** 4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Knowledge, skills, and range of medical problems treated by emergency physicians; breadth of undifferentiated patient complaints presenting in an acute setting. H, NH, S, F grading.	**1-21**
MED CLIN	**538**	**Revise**	**~~Clinical Rotation in Rural Medicine~~** 4 Course Prerequisite: MED CLIN 524. Caring for patients in communities with limited medical facilities; issues related to referrals and transfers to tertiary care centers for more complex medical problems and care coordination with local resources. H, S, F grading.	**Core - Rural Medicine** 4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Caring for patients in communities with limited medical facilities; issues related to referrals and transfers to tertiary care centers for more complex medical problems and care coordination with local resources. H, NH, S, F grading.	**1-21**
MED CLIN	**539**	**Revise**	**~~Clinical Rotation in Underserved Medicine~~** 4 Course Prerequisite: MED CLIN 524. The health care issues of underserved	**Core - Underserved Medicine** 4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite:	**1-21**

			populations and the complexities of providing for their medical needs in challenging social situations; disparities in the American health care system and challenges under-resourced patients face in meeting their medical needs. H, S, F grading.	MED CLIN 524. The health care issues of underserved populations and the complexities of providing for their medical needs in challenging social situations; disparities in the American health care system and challenges under-resourced patients face in meeting their medical needs. H, NH, S, F grading.	
MED CLIN	**541**	**Revise**	**~~Clinical Rotation in Imaging/Radiology~~** V 2-4 Course Prerequisite: MED CLIN 524. Medical imaging modalities and imaging-guided treatments, including patient preparation, risks, costs, and accuracies. H, S, F grading.	**Clinical Rotation - Radiology** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524; exceptions granted by the Associate Dean for Curriculum or designee. Medical imaging modalities and imaging-guided treatments, including patient preparation, risks, costs, and accuracies. H, NH, S, F grading.	**1-21**
MED CLIN	**542**	**Revise**	**~~Clinical Rotation in Dermatology~~** V 2-4 Course Prerequisite: MED CLIN 524. Disorders of the skin, mucous membranes, hair, and nails, including common skin problems such as acne, atopic dermatitis, contact dermatitis, psoriasis, cutaneous infections, benign skin lesions, and malignant lesions. H, S, F grading.	**Clinical Rotation - Dermatology** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Disorders of the skin, mucous membranes, hair, and nails, including common skin problems such as acne, atopic dermatitis, contact dermatitis, psoriasis, cutaneous infections, benign skin lesions, and malignant lesions. H, NH, S, F grading.	**1-21**
MED CLIN	**543**	**Revise**	**~~Clinical Rotation in Physical Medicine and Rehabilitation~~** V 2-4 Course Prerequisite: MED CLIN 524. Diagnosis and	**Clinical Rotation - Physical Medicine and Rehabilitation** V 2-4 May be repeated for credit; cumulative maximum 12	**1-21**

			treatment of patients with acute or chronic pathology of the neuromusculoskeletal systems. H, S, F grading.	hours. Course Prerequisite: MED CLIN 524. Diagnosis and treatment of patients with acute or chronic pathology of the neuromusculoskeletal systems. H, NH, S, F grading.	
MED CLIN	**545**	**Revise**	**~~Clinical Rotation in Critical Care Medicine~~** 4 Course Prerequisite: MED CLIN 524. Breadth of complex patient conditions presenting acutely and throughout an intensive care stay. H, S, F grading.	**Internal Medicine - Critical Care** 4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Breadth of complex patient conditions presenting acutely and throughout an intensive care stay. H, NH, S, F grading.	**1-21**
MED CLIN	**551**	**Revise**	**~~Clinical Rotation in Pathology~~** V 2-4 Course Prerequisite: MED CLIN 524. Anatomic and clinical pathology including surgical pathology, cytopathology, hematopathology, and laboratory medicine. H, S, F grading.	**Clinical Rotation - Pathology** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524; exceptions granted by the Associate Dean for Curriculum or designee. Anatomic and clinical pathology including surgical pathology, cytopathology, hematopathology, and laboratory medicine. H, NH, S, F grading.	**1-21**
MED CLIN	**553**	**Revise**	**~~Clinical Rotation in a Pediatric Sub-Specialty~~** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Identifying and caring for pediatric patients in need of sub-specialty care, with emphasis on medications and interventions. H, S, F grading.	**Pediatrics - Subspecialties** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Identifying and caring for pediatric patients in need of sub-specialty care, with emphasis on medications and interventions. H, NH, S, F grading.	**1-21**
MED CLIN	**560**	**Revise**	**~~Advanced Family Medicine: Ambulatory~~** V	**Family Medicine - Ambulatory** V 2-4 May be	**1-21**

			2-4 Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required to address the range of problems that practitioners of family medicine encounter in the ambulatory setting. H, S, F grading.	repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required to address the range of problems that practitioners of family medicine encounter in the ambulatory setting. H, NH, S, F grading.	
MED CLIN	**561**	**Revise**	~~**Advanced Internal Medicine: Ambulatory**~~ V 2-4 Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required to address the range of problems that practitioners of internal medicine encounter in the ambulatory setting. H, S, F grading.	**Internal Medicine - Ambulatory** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required to address the range of problems that practitioners of internal medicine encounter in the ambulatory setting. H, NH, S, F grading.	**1-21**
MED CLIN	**562**	**Revise**	~~**Advanced Obstetrics and Gynecology: Ambulatory**~~ V 2-4 Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required for the practice of gynecology in the ambulatory setting. H, S, F grading.	**Obstetrics and Gynecology - Ambulatory** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required for the practice of gynecology in the ambulatory setting. H, NH, S, F grading.	**1-21**
MED CLIN	**563**	**Revise**	~~**Advanced Pediatrics: Ambulatory**~~ V 2-4 Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required to address the range of problems that practitioners of pediatrics	**Pediatrics - Ambulatory** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required to address the range of problems that	**1-21**

			encounter in the ambulatory setting. H, S, F grading.	practitioners of pediatrics encounter in the ambulatory setting. H, NH, S, F grading.	
MED CLIN	**564**	**Revise**	~~**General Psychiatry**~~ V 2-4 Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required to address the range of problems that practitioners of psychiatry encounter in ~~general~~ psychiatric settings. H, S, F grading.	**Psychiatry - Subspecialties** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required to address the range of problems that practitioners of psychiatry encounter in psychiatric settings. H, NH, S, F grading.	**1-21**
MED CLIN	**565**	**Revise**	~~**Advanced Surgery: Ambulatory**~~ V 2-4 Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required for the practice of surgery in the ambulatory setting. H, S, F grading.	**Surgery - Ambulatory** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required for the practice of surgery in the ambulatory or inpatient setting. H, NH, S, F grading.	**1-21**
MED CLIN	**566**	**Revise**	~~**Advanced Internal Medicine: Inpatient**~~ V 2-4 Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required to address the range of problems that practitioners of adult hospital medicine encounter. H, S, F grading.	**Internal Medicine - Inpatient** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required to address the range of problems that practitioners of adult hospital medicine encounter. H, NH, S, F grading.	**1-21**
MED CLIN	**567**	**Revise**	~~**Advanced Obstetrics and Gynecology: Inpatient**~~ V 2-4 Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes	**Obstetrics and Gynecology - Inpatient** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension	**1-21**

			required for the practice of gynecology ~~with a focus on inpatient gynecology~~. H, S, F grading.	of knowledge, skills, and professional attitudes required for the practice of gynecology. H, NH, S, F grading.	
MED CLIN	**568**	**Revise**	**~~Advanced Pediatrics: Inpatient~~** V 2-4 Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required to address the range of problems that practitioners of pediatric hospital medicine encounter. H, S, F grading.	**Pediatrics - Hospital Medicine** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524.xtension of knowledge, skills, and professional attitudes required to address the range of problems that practitioners of pediatric hospital medicine encounter. H, NH, S, F grading.	**1-21**
MED CLIN	**569**	**Drop**	**Advanced Surgery: Inpatient** V 2-4 Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required for the practice of surgery in the hospital setting. H, S, F grading.	**--N/A--**	**1-21**
MED CLIN	**570**	**Revise**	**~~Domestic Rotation~~** V 2-4 May be repeated for credit; cumulative maximum 16 hours. Course Prerequisite: MED CLIN 524 ~~or~~ by ~~permission of~~ the Associate Dean ~~of~~ Curriculum. Extension of knowledge, skills, and professional attitudes required for the practice of a specialty or sub-specialty in medicine or surgery or a career pathway not available through ESFCOM. H, S, F grading.	**Away Rotation - North America** V 2-4 May be repeated for credit; cumulative maximum 16 hours. Course Prerequisite: MED CLIN 524; exceptions granted by the Associate Dean for Curriculum or designee. Extension of knowledge, skills, and professional attitudes required for the practice of a specialty or sub-specialty in medicine or surgery or a career pathway not available through ESFCOM in North America. H, NH, S, F grading.	**1-21**
MED CLIN	**571**	**Revise**	**~~International Rotation~~** V 2-4 May be repeated for credit; cumulative	**Away Rotation - International** V 2-4 May be repeated for credit;	**1-21**

			maximum 8 hours. Course Prerequisite: MED CLIN 524 ~~or~~ by ~~permission of~~ the Associate Dean ~~of~~ Curriculum. Extension of knowledge, skills, and professional attitudes required for the delivery of health care in international settings. H, S, F grading.	cumulative maximum 8 hours. Course Prerequisite: MED CLIN 524; exceptions granted by the Associate Dean for Curriculum or designee. Extension of knowledge, skills, and professional attitudes required for the delivery of health care in international settings. H, NH, S, F grading.	
MED CLIN	**572**	**Revise**	**~~Addiction Medicine~~** V 2-4 Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required to address the range of problems that practitioners in the area of addiction medicine encounter. H, S, F grading.	**Clinical Rotation - Addiction Medicine** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required to address the range of problems that practitioners in the area of addiction medicine encounter. H, NH, S, F grading.	**1-21**
MED CLIN	**573**	**Revise**	**~~Anesthesia~~** V 2-4 Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required for the practice of anesthesia in both inpatient and outpatient settings. H, S, F grading.	**Clinical Rotation - Anesthesiology** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required for the practice of anesthesia in both inpatient and outpatient settings. H, NH, S, F grading.	**1-21**
MED CLIN	**574**	**Revise**	**~~Clinical Bioethics~~** V 2-4 Course Prerequisite: MED CLIN 524 ~~or~~ by ~~permission of~~ the Associate Dean ~~of~~ Curriculum. Introduction to the knowledge, skills, and range of problems that clinical bioethics committees encounter in	**Science - Clinical Bioethics** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524; exceptions granted by the Associate Dean for Curriculum or designee. Introduction to the knowledge, skills, and range	**1-21**

			clinical settings. H, S, F grading.	of problems that clinical bioethics committees encounter in clinical settings. H, NH, S, F grading.	
MED CLIN	**575**	**Revise**	~~**Geriatrics**~~ V 2-4 Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required for the practice of geriatrics. H, S, F grading.	**Clinical Rotation - Geriatrics** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required for the practice of geriatrics. H, NH, S, F grading.	**1-21**
MED CLIN	**576**	**Revise**	~~**Medicine Subspecialties**~~ V 2-4 Course Prerequisite: MED CLIN 524. May be repeated for credit; cumulative maximum 12 hours. Deep exposure to internal medicine subspecialty disciplines and to the care of patients with more complicated, challenging, or rare conditions not routinely managed in primary care practice. H, S, F grading.	**Internal Medicine - Internal Medicine Subspecialties** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Deep exposure to internal medicine subspecialty disciplines and to the care of patients with more complicated, challenging, or rare conditions not routinely managed in primary care practice. H, NH, S, F grading.	**1-21**
MED CLIN	**577**	**Revise**	~~**Surgery Subspecialties**~~ V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required for the practice of medicine with a focus on disorders commonly encountered by specialists in surgery. H, S, F grading.	**Surgery – Subspecialties** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required for the practice of medicine with a focus on disorders commonly encountered by specialists in surgery. H, NH, S, F grading.	**1-21**
MED CLIN	**578**	**Revise**	~~**Advanced General Surgery**~~ V 2-4 Course	**Surgery - General Surgery** V 2-4 May be repeated for	**1-21**

			Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required for the practice of medicine with a focus on disorders commonly encountered by a general, thoracic, vascular, trauma, or acute care surgeon. H, S, F grading.	credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required for the practice of medicine with a focus on disorders commonly encountered by a general, thoracic, vascular, trauma, or acute care surgeon. H, NH, S, F grading.	
MED CLIN	**579**	**Revise**	**~~Medical Informatics~~** V 2-4 Course Prerequisite: MED CLIN 524 ~~or~~ by ~~permission of~~ the Associate Dean ~~of~~ Curriculum. Extension of knowledge, skills, and professional attitudes required for the application of medical informatics principles to the practice of medicine. H, S, F grading.	**Science - Medical Informatics** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524; exceptions granted by the Associate Dean for Curriculum or designee. Extension of knowledge, skills, and professional attitudes required for the application of medical informatics principles to the practice of medicine. H, NH, S, F grading.	**1-21**
MED CLIN	**580**	**Revise**	**~~Neurology~~** V 2-4 Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required to address the range of problems that practitioners encounter in neurology. H, S, F grading.	**Clinical Rotation – Neurology** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required to address the range of problems that practitioners encounter in neurology. H, NH, S, F grading.	**1-21**
MED CLIN	**584**	**Revise**	**~~Ophthalmology~~** V 2-4 Course Prerequisite: MED CLIN 524. Extension of knowledge, skills, and professional attitudes required for the practice of	**Clinical Rotation – Ophthalmology** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Extension	**1-21**

			medicine with a focus on ophthalmologic disorders. H, S, F grading.	of knowledge, skills, and professional attitudes required for the practice of medicine with a focus on ophthalmologic disorders. H, NH, S, F grading.	
MED CLIN	**585**	**Revise**	~~**Palliative Medicine**~~ V 2-4 Course Prerequisite: MED CLIN 524. Introduction to knowledge, skills, and range of problems that practitioners in ~~the area of~~ palliative care encounter. H, S, F grading.	**Clinical Rotation - Hospice and Palliative Medicine** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Introduction to the knowledge, skills, and range of problems that practitioners in hospice and palliative care encounter. H, NH, S, F grading.	**1-21**
MED CLIN	**587**	**Revise**	~~**Public Health**~~ V 2-4 Course Prerequisite: MED CLIN 524 ~~or~~ by ~~permission of~~ the Associate Dean ~~of~~ Curriculum. Introduction to the knowledge, skills, and range of problems that public health officers encounter. H, S, F grading.	**Clinical Rotation - Public Health** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524; exceptions granted by the Associate Dean for Curriculum or designee. Introduction to the knowledge, skills, and range of problems that public health officers encounter. H, NH, S, F grading.	**1-21**
MED CLIN	**588**	**Revise**	~~**Radiation Oncology**~~ V 2-4 Course Prerequisite: MED CLIN 524. Introduction to knowledge, skills, and range of problems encountered by practitioners in the area of radiation oncology. H, S, F grading.	**Clinical Rotation - Radiation Oncology** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524. Introduction to knowledge, skills, and range of problems encountered by practitioners in the area of radiation oncology. H, NH, S, F grading.	**1-21**
MED CLIN	**589**	**Revise**	~~**Surgical Residency Prep**~~ V 2-4 Course Prerequisite: MED CLIN 524. Deeper knowledge and skills ~~in the~~	**Clinical Rotation - Transition to Residency** V 2-4 May be repeated for credit; cumulative	**1-21**

			~~area of anatomy~~ ~~in relationship to surgical problems~~. H, S, F grading.	maximum 4 hours. Course Prerequisite: MED CLIN 524. Deeper knowledge and skills required to begin residency in a core medical or surgical specialty. H, NH, S, F grading.	
MED CLIN	**590**	**Revise**	~~**Medical Education**~~ V 2-4 Course Prerequisite: MED CLIN 524 ~~or~~ by ~~permission of~~ the Associate Dean ~~of~~ Curriculum. Theories of learning as applied to medical education; specific areas and objectives formulated by the student and preceptor/mentor. H, S, F grading.	**Science - Medical Education** V 2-4 May be repeated for credit; cumulative maximum 12 hours. Course Prerequisite: MED CLIN 524; exceptions granted by the Associate Dean for Curriculum or designee. Theories of learning as applied to medical education; specific areas and objectives formulated by the student and preceptor/mentor. H, NH, S, F grading.	**1-21**
MED CLIN	**599**	**Revise**	**Special Projects** V 2-4 May be repeated for credit; cumulative maximum ~~12~~ hours. Course Prerequisite: By department permission. Laboratory research, clinical research, or comprehensive review of selected subjects. H, S, F grading.	**Special Projects** V 2-4 May be repeated for credit; cumulative maximum 20 hours. Course Prerequisite: By department permission. Laboratory research, clinical research, or comprehensive review of selected subjects. H, NH, S, F grading.	**8-20**
SOE	**102**	**Revise**	**Physical Geology** 4 (3-3) Course Prerequisite: MATH 103, 106, 140, 171, 201, or 202, or concurrent enrollment in any of these, or a minimum ALEKS math placement score of 40%. Enrollment not allowed if credit already earned for SOE 101. Modern concepts of earth science; mineral rock, resource, and map study. Field trip required. Credit not granted for both SOE	**Physical Geology** 4 (3-3) Course Prerequisite: MATH 103, 106, 140, 171, 201, or 202, or concurrent enrollment in any of these, or a minimum ALEKS math placement score of 40%. Enrollment not allowed if credit already earned for SOE 101. Modern concepts of earth science; mineral rock, resource, and map study. Field trip required. Credit not granted for both SOE 101 and 102. Typically offered Fall and Spring.	**8-21**

			101 and 102. Typically offered Spring.		
SOE	**210**	**Revise**	**[PSCI] Earth's History and Evolution** 4 (3-3) Introduction to earth's history and evolution through observations, data collection and analysis, readings and writing exercises. ~~Two field trips required.~~ Typically offered Fall, Spring, and Summer.	**[PSCI] Earth's History and Evolution** 4 (3-3) Introduction to earth's history and evolution through observations, data collection and analysis, readings and writing exercises. Typically offered Fall, Spring, and Summer.	**8-21**
SOE	**275**	**Revise**	**Rivers: Form, Function, and Management** 3 Introduction to rivers, stream ecology, and restoration. Typically offered Fall ~~and Spring~~.	**Rivers: Form, Function, and Management** 3 Introduction to rivers, stream ecology, and restoration. Typically offered Fall.	**8-21**
SOE	**304**	**Revise**	**Ecosystem Field Measurements** 4 (3-3) Course Prerequisite: SOE 204; SOE 300 or BIOLOGY 372 or concurrent enrollment in either; SOE 301 or concurrent enrollment. ~~Fixed-area sampling and analytical techniques for assessing various ecological variables and~~ wildlife habitat~~; variable radius sampling methods for forests and biomass estimation procedures for ecosystems~~. Typically offered Fall.	**Ecosystem Field Measurements** 4 (3-3) Course Prerequisite: SOE 204; SOE 300 or BIOLOGY 372 or concurrent enrollment in either; SOE 301 or concurrent enrollment. Measurement and analysis of forests, wildlife habitat, and rangelands using field equipment and spacial sampling techniques; development of employment skills in forestry, forest restoration, and wildlife management. Typically offered Fall.	**8-21**
SOE	**311**	**Revise**	**Modeling the Environment** 4 (3-3) Construction and testing of computer simulation models of environmental systems. Typically offered ~~Fall~~. Cooperative: Open to UI degree-seeking students.	**Modeling the Environment** 4 (3-3) Construction and testing of computer simulation models of environmental systems. Typically offered Spring. Cooperative: Open to UI degree-seeking students.	**1-21**
SOE	**318**	**Revise**	**Wildlife Genetics** 3 Course Prerequisite: BIOLOGY 106; BIOLOGY 107 with a C or better; one of MATH	**Wildlife Genetics** 3 Course Prerequisite: BIOLOGY 106; BIOLOGY 107 with a C or better; one of MATH	**1-21**

			106, 108, 140, 171, or a minimum ALEKS math placement score of 80%. Application of genetic tools for wildlife conservation and management, including forensics, detection of rare species, and population estimation. Typically offered ~~Even Years - Fall~~. Cooperative: Open to UI degree-seeking students.	106, 108, 140, 171, or a minimum ALEKS math placement score of 80%. Application of genetic tools for wildlife conservation and management, including forensics, detection of rare species, and population estimation. Typically offered Odd Years - Spring. Cooperative: Open to UI degree-seeking students.	
SOE	**340**	**Revise**	**[M] Structural Geology and Plate Tectonics** 4 (3-3) Course Prerequisite: One of MATH 106, 108, 140, 171, or a minimum ALEKS math placement score of 80%; SOE 210. Basic understanding and techniques of working in deformed rocks in mountain belts. Field trip required. Typically offered ~~Spring~~.	**[M] Structural Geology and Plate Tectonics** 4 (3-3) Course Prerequisite: One of MATH 106, 108, 140, 171, or a minimum ALEKS math placement score of 80%; SOE 210. Basic understanding and techniques of working in deformed rocks in mountain belts. Field trip required. Typically offered Fall.	**8-21**
SOE	**405**	**Revise**	**Near Surface Geophysics** 4 (3-3) Exploration of near surface geophysics techniques as applicable, but not limited to, groundwater analysis, environmental remediation, archaeology, and natural resources detection. Typically offered ~~Fall~~.	**Near Surface Geophysics** 4 (3-3) Exploration of near surface geophysics techniques as applicable, but not limited to, groundwater analysis, environmental remediation, archaeology, and natural resources detection. Typically offered Even Years - Spring.	**8-21**
SOE	**435**	**Revise**	**Wildlife Ecology** 4 (3-3) Course Prerequisite: BIOLOGY 372 or SOE 300; STAT 212 or 412; junior standing. The ecology of wildlife species and the contributing biological processes. Overnight field trip required. Typically offered ~~Fall~~.	**Wildlife Ecology** 4 (3-3) Course Prerequisite: BIOLOGY 372 or SOE 300; STAT 212 or 412; junior standing. The ecology of wildlife species and the contributing biological processes. Overnight field trip required. Typically offered Spring.	**1-21**
SOE	**441**	**Revise**	**Population Ecology and Conservation** 4 (3-3) Course Prerequisite:	**Population Ecology and Conservation** 4 (3-3) Course Prerequisite:	**8-21**

			BIOLOGY 372 or SOE 300 with a C or better in either; SOE 435 with a C or better; STAT 212 with a C or better and concurrent enrollment in STAT 412, or STAT 412 with a C or better. Ecology, conservation, management of vertebrate populations, especially threatened and endangered species; designed for wildlife and conservation biology majors. Typically offered ~~Spring~~.	BIOLOGY 372 or SOE 300 with a C or better in either; SOE 435 with a C or better; STAT 212 with a C or better and concurrent enrollment in STAT 412, or STAT 412 with a C or better. Ecology, conservation, management of vertebrate populations, especially threatened and endangered species; designed for wildlife and conservation biology majors. Typically offered Fall.	
SOE	**444 / 544**	**Revise**	**Environmental Assessment** 3 National and state policy frameworks for environmental assessment that support integration of science and the public into agency decision-making process. Credit not granted for both SOE 444 and SOE 544. Offered at 400 and 500 level. Typically offered Fall ~~and Spring~~. Cooperative: Open to UI degree-seeking students.	**Environmental Assessment** 3 National and state policy frameworks for environmental assessment that support integration of science and the public into agency decision-making process. Credit not granted for both SOE 444 and SOE 544. Offered at 400 and 500 level. Typically offered Summer and Fall. Cooperative: Open to UI degree-seeking students.	**8-21**
SOE	**446**	**Revise**	**[M] Wildlife Habitat Ecology** 3 (2-3) Course Prerequisite: SOIL SCI 368 or concurrent enrollment. The ecology of how wildlife use, respond to, and affect resources in their environment. Typically offered ~~Spring~~.	**[M] Wildlife Habitat Ecology** 3 (2-3) Course Prerequisite: SOIL SCI 368 or concurrent enrollment; STAT 212 or 412; senior standing. The ecology of how wildlife use, respond to, and affect resources in their environment. Typically offered Fall.	**8-21**
SOE	**471**	**Revise**	**[CAPS] International Wildlife Conservation** 3 Course Prerequisite: Junior standing. A broad survey of international wildlife conservation that touches on biological, social, and political aspects of wildlife	**[CAPS] International Wildlife Conservation** 3 Course Prerequisite: Junior standing. A broad survey of international wildlife conservation that touches on biological, social, and political aspects of wildlife	**1-21**

			management; focus on understanding the unique challenges that are encountered in the international arena. Typically offered ~~Even~~ Years - Spring.	management; focus on understanding the unique challenges that are encountered in the international arena. Typically offered Odd Years - Spring.	
SOE	**531**	**Revise**	**Fundamentals of Environmental Toxicology** 3 Fundamentals of toxicology; environmental fate and biological ~~deposition and effects of natural products, drugs, food chemicals, and pollutants~~. Typically offered Fall.	**Fundamentals of Environmental Toxicology** 3 Fundamentals of toxicology; environmental fate and biological effects of chemical pollutants in air, water, and food. Typically offered Odd Years - Spring.	**1-21**
SOE	**532**	**Revise**	**Applied Environmental Toxicology** 3 ~~Course Prerequisite: SOE 531 or PHARMSCI 505.~~ Overview of the field of environmental toxicology~~; interactions of zenobiotics with natural systems~~. Typically offered ~~Fall~~.	**Applied Environmental Toxicology** 3 Overview of and current issues in the field of environmental toxicology. Typically offered Even Years - Spring.	**8-21**
SOE	**540**	**Revise**	**Agroecology** 3 Social and ecological aspects of agriculture and human food systems. Typically offered ~~Fall~~.	**Agroecology** 3 Social and ecological aspects of agriculture and human food systems. Typically offered Spring.	**8-21**
SOE	**555**	**Revise**	**System Dynamics Models of Environmental Systems** 3 Analysis of environmental system dynamics; development and uses of simulation models using the Stella software on Macintosh. Typically offered ~~Fall~~. Cooperative: Open to UI degree-seeking students.	**System Dynamics Models of Environmental Systems** 3 Analysis of environmental system dynamics; development and uses of simulation models using the Stella software on Macintosh. Typically offered Spring. Cooperative: Open to UI degree-seeking students.	**1-21**
STAT	**530**	**Revise**	~~**Applied Linear**~~ **Models** 3 (2-2) ~~The design and analysis of experiments by linear models~~. Required preparation: One 3-credit	**Predictive Models: Foundations in Data Science** 3 (2-2) Topics in regression and classification suing probabilistic and data-based methods to build	**8-21**

			400-level STAT course. Typically offered Spring.	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.	