

GRADUATE MAJOR CHANGE BULLETIN NO. 11

Spring 2018

Faculty Senate approved March 29, 2018

The courses listed below reflect the graduate major curricular changes approved by the Catalog Subcommittee and the Graduate Studies Committee since approval of the last Graduate Major Change Bulletin. All new and revised courses are printed in their entirety under the headings Proposed and Current, respectively. The column to the far right indicates the date each change becomes effective.

Subject	Course Number	New Revise Drop	Current	Proposed	Effective Date
BSYSE	600	New	--N/A--	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. S, F grading.	5-18
<u>SOE</u>	510	Revise	Species Distribution Modeling 3 Theory and application of species distribution models, including niche, occupancy, and spatial capture-recapture models; manipulation of spatial data and software packages (ArcGIS, R, MaxEnt, PRESENCE). Typically offered Even Years - Fall. Cooperative: Open to UI degree-seeking students.	Species Distribution Modeling 3 Theory and application of species distribution models, including niche, occupancy, and spatial capture-recapture models; manipulation of spatial data and software packages (ArcGIS, R, MaxEnt, PRESENCE). (Formerly <u>ENVR SCI 510</u>). Typically offered Even Years - Fall. Cooperative: Open to UI degree-seeking students.	8-18
<u>SOE</u>	<u>512</u>	Revise	[M] Global Biogeochemistry 3 Cycles of biogeochemically important elements and anthropogenic changes to those cycles in terrestrial and aquatic environments on a global scale. Field trip required.	[M] Global Biogeochemistry 3 Cycles of biogeochemically important elements and anthropogenic changes to those cycles in terrestrial and aquatic environments on a global scale. Field trip required. <u>Credit not granted for both SOE 412 and SOE 512. Offered at 400 and 500 level. (Formerly ENVR SCI 410).</u>	8-18

<u>SOE</u>	521	Revise	Uses and Regulation of Radiation 3 Uses and regulation of radiation and radioactive materials in medicine, industry, power production, and scientific research. Required preparation: ENVR SCI 406.	Uses and Regulation of Radiation 3 Uses and regulation of radiation and radioactive materials in medicine, industry, power production, and scientific research. Required preparation: SOE 406. (Formerly ENVR SCI 521)	8-18
<u>SOE</u>	532	Revise	Applied Environmental Toxicology 3 Course Prerequisite: ENVR SCI 531 or PHARMSCI 505. Overview of the field of environmental toxicology; interactions of xenobiotics with natural systems. Typically offered Fall.	Applied Environmental Toxicology 3 Course Prerequisite: SOE 531 or PHARMSCI 505. Overview of the field of environmental toxicology; interactions of xenobiotics with natural systems. (Formerly ENVR SCI 532). Typically offered Fall.	8-18
<u>SOE</u>	536	Revise	Integrated Water Resources Science and Management 3 Introduction to the physical, social, and cultural drivers that shape how water is managed within the larger environmental and human landscape. Typically offered Spring.	Integrated Water Resources Science and Management 3 Introduction to the physical, social, and cultural drivers that shape how water is managed within the larger environmental and human landscape. (Formerly ENVR SCI 535). Typically offered Spring.	8-18
<u>SOE</u>	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. (Formerly ENVR SCI 540). Typically offered Fall.	8-18
<u>SOE</u>	544	Revise	Environmental Assessment 3 Environmental impact statements and their national and state policy frameworks, methods of assessment, and team preparation of an impact statement. Credit not granted for both ENVR SCI 444 and ENVR SCI 544. Offered at 400 and 500 level. Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	Environmental Assessment 3 Environmental impact statements and their national and state policy frameworks, methods of assessment, and team preparation of an impact statement. Credit not granted for both SOE 444 and SOE 544. Offered at 400 and 500 level. (Formerly ENVR SCI 444/544). Typically offered Fall and Spring. Cooperative: Open to UI degree-seeking students.	8-18
<u>SOE</u>	545	Revise	Hazardous Waste Management 3 Environmental, technical, and political aspects of hazardous waste	Hazardous Waste Management 3 Environmental, technical, and political aspects of hazardous waste	8-18

			management; evaluative methods, risk assessment, and current management requirements. Credit not granted for both ENVR SCI 445 and ENVR SCI 545. Offered at 400 and 500 level. Typically offered Fall. Cooperative: Open to UI degree-seeking students.	management; evaluative methods, risk assessment, and current management requirements. Credit not granted for both SOE 445 and SOE 545. Offered at 400 and 500 level. <u>(Formerly ENVR SCI 445/545).</u> Typically offered Fall. Cooperative: Open to UI degree-seeking students.	
<u>SOE</u>	<u>555</u>	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. <u>(Formerly ENVR SCI 550).</u> Typically offered Fall. Cooperative: Open to UI degree-seeking students.	8-18
<u>SOE/SOIL SCI</u>	<u>516</u>	Revise	Soil Processes in the Earth's Critical Zone 3 Soil geochemistry and processes; theory and applications with a focus on reactions at the solid, liquid, and gaseous interface between the lithosphere, atmosphere, hydrosphere, and biosphere. (Crosslisted course offered as GEOLOGY 416/516, SOIL SCI 416/516). Credit not granted for both GEOLOGY /SOIL SCI 416 and GEOLOGY /SOIL SCI 516. Recommended preparation: Basic knowledge of soils (e.g. SOIL SCI 201 or equivalent; CHEM 106; PHYSICS 102). Offered at 400 and 500 level. Typically offered Fall.	Soil Processes in the Earth's Critical Zone 3 Soil geochemistry and processes; theory and applications with a focus on reactions at the solid, liquid, and gaseous interface between the lithosphere, atmosphere, hydrosphere, and biosphere. (Crosslisted course offered as SOE 416/516, SOIL SCI 416/516). Credit not granted for both SOE/SOIL SCI 416 and SOE/SOIL SCI 516. Recommended preparation: Basic knowledge of soils (e.g. SOIL SCI 201 or equivalent); CHEM 106; PHYSICS 102). Offered at 400 and 500 level. <u>(Formerly GEOLOGY/SOIL SCI 416/416).</u> Typically offered Fall.	8-18