UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Office of the Provost and Vice Chancellor
for Academic Affairs

Swanlund Administration Building
601 East John Street
Champaign, IL 61820

March 17, 2011

Abbas Aminmansour, Chair
Senate Committee on Educational Policy
Office of the Senate
228 English Building, MC-461

Dear Professor Aminmansour:

Enclosed is a copy of a proposal from the College of Liberal Arts and Sciences to revise and rename the BSLAS in Earth, Society, and Environment as Earth, Society and Environmental Sustainability.

This proposal has been approved by the LAS Committee on Courses and Curricula. It now requires Senate review.

Sincerely,

Kristi A. Kuntz
Assistant Provost

KAK/njh

Enclosures

c: S. Marshak
J. Tomkin

telephone (217) 333-6677 • *fax* (217) 244-5639
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UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Office of the Dean

College of Liberal Arts and Sciences
294 Lincoln Hall
702 South Wright Street
Urbana, IL 61801-3631

February 16, 2011

Kritsi Kuntz
Assistant Provost
Swanlund Administration Building
MC-304

Dear Kristi:

The Committee on Courses and Curricula, on behalf of the Faculty of the College of Liberal Arts and Sciences has voted to approve the following proposal:

Revision and title change of the BSLAS in Earth, Society, and Environment

Please address all correspondence concerning this proposal to me. This proposal is now ready for review by the Senate Educational Policy Committee for proposed implementation upon approval.

Sincerely,

Ann M. Mester
Associate Dean

enclosure
C: Dr. Jonathan Tomkin
Professor Stephen Marshak
Ms. Amy Elli

telephone 217-333-1350 • *fax* 217-333-9142

ILLINOIS
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Proposal to the Senate Educational Policy Committee

PROPOSAL TITLE: Revision and title change of the BSLAS in Earth, Society Environment, School of Earth, Society and the Environment, College of Liberal Arts and Sciences

SPONSOR: School of Earth, Society, and Environment

SCHOOL CONTACT: Jonathan Tomkin, Associate Director of Academic Affairs (244-2928, tomkin@illinois.edu)

COLLEGE CONTACT: Ann M. Mester, Associate Dean, College of Liberal Arts and Sciences, 3-1350, mester@illinois.edu

BRIEF DESCRIPTION:

We propose to make three minor changes to the BSLAS in Earth Systems, Environment, and Society to take advantage of newly developed courses and programs at UIUC and to more accurately describe to students, both current and prospective, the important themes and practice of the major.

JUSTIFICATION:

1. **Changing the name of the Major from "Earth, Society, and Environment" (ESE) to "Earth, Society and Environmental Sustainability" (ESE).**
   This name most accurately reflects the academic content of the major. This name is also better understood by potential students of the program. The program of study (attached) is altered to reflect this goal.

2. **Allow advanced "ENSU" courses to satisfy the advanced "ESE" requirement.**
   Currently, students must take three advanced courses that are listed or cross-listed as "ESE" (Earth, Society and Environment). The School now administers a related rubric: "ENSU" (Environmental Sustainability) which clearly falls in the remit of the major. The program of study (attached) is altered to reflect this change.

3. **Add advanced category classes (with advisor approval) to the category requirements**
   Students take 4 introductory classes from the following five categories:

   - Environment and the Human Response

- Sustainability, Policy, and Global Change
- Visualizing the Earth System
- Earth's Physical Systems, Resources, and Hazards
- Earth's Biosphere and Ecology

We propose to allow students to take an advanced class (in the same category) in the place of an introductory class to satisfy this requirement, with the permission of the advisor. Some students independently satisfy the pre-requisites for the advanced class in a category without taking an introductory class, and we do not wish to force students to take an introductory class if an advanced class is available and appropriate. This advanced class could not be used to satisfy any other requirement in the major; the same total number of courses and hours would be required. The program of study (attached) is altered to reflect this change. The introductory and advanced class lists are attached (Appendix A).

BUDGETARY AND STAFF IMPLICATIONS:

a. Additional staff and dollars needed: We do not expect these changes to impact staffing or costs – there may be a slight saving in both, as advanced courses that are at under-capacity may experience a small increase in enrollment. The first change only impacts the major name. The second and third changes may increase enrollments in ENSU, but this change is zero-sum, as any student enrolled in an ENSU class is replacing an ESE class requirement. Both courses are within the School, so both the costs and the staffing remains the same.
b. Internal reallocations (e.g., change in class size, teaching loads, student-faculty ratio, etc.): We do not expect these changes to impact reallocations. The first change only impacts the major name. The second and third changes may increase enrollments in ENSU, but this change is zero-sum, as any student enrolled in an ENSU class is replacing an ESE class requirement. Both courses are within the School, so the average student-faculty ratio remains the same.
c. Effect on course enrollment in other units and explanations of discussions with representatives of those departments: The first change only impacts the major name. The second and third changes are purely related to courses within the School – there may be increases in advanced ESE and ENSU class enrollment, but this would only displace classes taken at the introductory ESE level. Any change in numbers would be very modest and impact classes internal to the School.
d. Impact on the University Library: We do not expect the program to have a significant impact on the Library. Any additional classes taken by off-campus students (for example, as part of the existing ENSU certificate program, or over the summer) will not impact physical resources, but there may be some increased usage of on-line library resources.
e. Impact on computer use, laboratory use, equipment, etc.: Students provide their own computers for the online ENSU classes, so there will be no impact on University laboratories and equipment. As the program involves additional student enrollment and instruction, there will be some small impact on the servers that regulate registration and online course instruction (such as Compass and Moodle).

DESIRED EFFECTIVE DATE: Fall 2011

Earth, Society, and Environmental Sustainability

The major in Earth, Society, and Environmental Sustainability (ESE) offers a unique, multidisciplinary program in the College of Liberal Arts and Sciences (LAS). Students will learn about the interconnectedness of environmental, economic, and social systems of the world; the implications of our actions on the environment; factors that determine the sustainability of human institutions, organizations, cultures, and technologies; finding solutions through innovative approaches; and expanding future options by practicing environmental stewardship. Following the classical definition of sustainability, the aim is to develop citizens, businesses, and societies that meet the needs of the present without compromising the ability of future generations to do the same.

Required introductory coursework provide breadth in the essential natural and social sciences needed for interdisciplinary environmental sustainability study. The major offers two concentrations within which majors gain content expertise: Science of the Earth System, and Society and the Environment. Depth of knowledge is achieved by requiring a minimum of five advanced classes in a coherent field of study.

The major is available to both on-campus and off-campus students. On-campus students need only be eligible to be in LAS to transfer to the degree. The program is also designed so that students with an associates (or equivalent) degree, or who have sufficient previous coursework, can transfer to the University and complete a Bachelor of Science degree entirely off-campus. Students interested in completing the course off-campus, but have less than 60 hours of coursework, should consult with the program advisor.

The degree will prepare students for a variety of career paths in either the private or the public sector, as well as for graduate study. The interdisciplinary background in both scientific and human aspects of environmental problems will prepare students for a variety of positions with businesses, state and federal regulatory agencies, research institutions, consulting firms and nongovernmental education and advocacy organizations. The major also provides a platform for entry into professional schools (e.g. law, business, and public policy programs) as well as graduate study in a variety of physical science and social science disciplines, and in interdisciplinary programs related to the environment.

Major in Sciences and Letters Curriculum

E-mail: program-info@eses.uiuc.edu

Degree title: Bachelor of Science in Liberal Arts and Sciences

Minimum required major and supporting courses equate to 48-58 hours.

General education: Students must complete the Campus General Education requirements.

On-campus UIUC students can transfer to this degree without any special requirements.

Off-campus students who plan to transfer to this degree should have completed, or have in progress, the following: the Composition 1 requirement.

- the third level of high school foreign language or second level of college foreign language.

It is highly recommended that off-campus students complete the following requirements before transferring to the online degree - students who have not completed the following requirements may have to take additional coursework (either at UIUC or elsewhere) and should consult the program advisor:

- the UIUC LAS language requirement should be satisfied (either two foreign languages at the 3rd level or one foreign language at the 4th level).
- the General Education Distribution Requirements of the College of Liberal Arts and Sciences should be completed.
- the Cognate Coursework should be completed.

Minimum hours required for graduation: 120 hours

Departmental distinction: Students who maintain grade point averages of at least 3.3 in all courses within the major and who undertake a faculty-guided individual research project for credit in the major are recommended for graduation with distinction.

Hours	Requirements
	Students must complete the ESE Core Requirements listed below and select one concentration in consultation with an academic advisor.
12-14	ESE Introductory Core: Students take one approved introductory or advanced course from at least four of the following five areas. Approved courses within these areas are available from the ESE advisor OR in the ESE School office OR at http://www.earth.illinois.edu/students/guides/
	Environment and the Human Response
	Sustainability, Policy, and Global Change
	Earth's Physical Systems, Resources, and Hazards
	Visualizing the Earth System
	Earth's Biosphere and Ecology
6	ESE coursework
	GEOG 379- Introduction to GIS
	ESE 200- Earth Systems

15-20	Advanced Courses A minimum of five additional 300- and 400-level courses, from the approved list and in an academically coherent program approved by an advisor, are required. At least three of these five advanced courses must be listed or cross-listed as either an ESE or ENSU course. Courses taken to satisfy the "ESE Introductory Core" requirement cannot simultaneously be used to satisfy the Advanced Course requirement. These courses should be used to help meet the LAS requirement of 21 hours of 300- or 400-level courses overall, and 12 hours of 300- or 400-level courses in the major. It is strongly recommended that students complete the LAS requirement with 21 hours of 300- or 400-level courses related to the ESE curriculum.

Society and the Environment (SAE) Concentration

Hours	Requirements
16-18	Cognate Course Work
	10-12 hours-Introductory Social Science (Select three courses from approved list)
	3 hours-Statistics (Select one course from approved list)
	3 hours-Economics ECON 102
	Highly recommended: CHEM 101 or 102

Science of the Earth System (SES) Concentration

Hours	Requirements
15-18	Cognate Course Work
	3 hours-CHEM 102-General Chemistry I or CHEM 202 Accelerated Chemistry I
	1 hour-CHEM 103-General Chemistry Lab I or CHEM 203- Accelerated Chemistry Lab I
	4-5 hours-MATH 220-Calculus I or MATH 221- Calculus I
	3 hours-STAT 100-Statistics
	4-5 hours-PHYS 101- College Physics: Mech & Heat or PHYS 211- University Physics: Mechanics
	Highly recommended: ECON 102

All students wishing to attend graduate school in any field should discuss necessary supplementary course work with their advisor as early as possible.

Twelve hours of 300- or 400-level courses must be taken on this campus.

Second majors or campus-wide minors may be used to fulfill this requirement upon approval of an advisor.

Substitutions may be made with advisor approval.

All foreign language requirements must be satisfied.

A Major Plan of Study form must be completed and submitted to the LAS Student Affairs Office before the end of the fifth semester (60-75 hours). Study abroad courses may be substituted for major and minor requirements with approval of advisor.

CLEARANCES:

Signatures:

School of Earth, Society and the Environment — Date: 12/10/10

College of Liberal Arts and Sciences — Date: 2/16/11

Provost Representative: — Date:

Educational Policy Committee Representative: — Date:

Appendix A: Course Lists
ESE Introductory Course Lists

• *Environment and the Human Response*

GEOG 106	Geographies of Globalization
GEOG 210	Contemp Social & Env Problems
NRES 287	Environment and Society
ACE 210	Environmental Economics
ACE 251	The World Food Economy
HIST 282	Nature and American Culture
SOC 160	Global Ineq and Social Change

• *Sustainability, Policy, and Global Change*

ANTH 278	Climate Change & Civilization
ATMS 140	Climate and Global Change
ATMS 202	Soc Impacts Weather & Climate
GEOL 208	Earth System History
GEOG 214	Conserv Natural Resources
NPRE 101	Energy Sources
NPRE 201	Energy Systems
PS 225 *	Environmental Politics
LA 250	Environmental Site Analysis
SOC 270	Population Issues

• *Earth's Physical Systems, Resources, and Hazards*

ATMS 100	Introduction to Meteorology
ATMS 120 *	Severe and Unusual Weather
ATMS 201	General Meteorology
GEOG 103	Earth's Physical System
GEOG 222	Big Rivers of the World
GEOL 100 *	Planet Earth
GEOL 101	Introductory Physical Geology
GEOL 103	Planet Earth QR II
GEOL 104	Geology of the National Parks
GEOL 107	Physical Geology
GEOL 117	The Oceans
GEOL 118	Natural Disasters

• *Visualizing the Earth System*

GEOG 105	The Digital Earth

• *Earth's Biosphere and Ecology*

GEOL 143	History of Life
IB 126	Extinction: Dinosaurs to Dodos
IB 100	Biological Sciences
IB 101	Biological Sciences
IB 102	Plants, People & Environment
IB 103	Introduction to Plant Biology
IB 105	Environmental Biology
IB 107	Global Warming, Biofuels, Food
IB 150	Organismal & Evolutionary Biol
MCB 150 *	Molec & Cellular Basis of Life

ESE Advanced Core Course Lists

** denotes that this course has an on-line version available on or before Fall 2011.*

• ***Environment and the Human Response***

ATMS 322 *	Soc Impacts Weather & Climate
GEOG 381	Environmental Perspectives
GEOG 384	Population Geography
GEOG 455	Geog of Sub-Saharan Africa
GEOG 465	Transp and Sustainability
GEOG 483	Urban Geography
ACE 310	Natural Resource Economics
ACE 406	Environmental Law and Policy
AGCM 330	Environmental Communications
AGCM 430	Comm in Env Social Movements
CHLH 469	Environmental Health
LA 450	Ecology of Land Restoration
NRES 472 *	Environmental Psychology
SOC 447	Environmental Sociology
UP 405	Watershed Ecology and Planning
UP 442	Environmental Policy and Law

• ***Sustainability, Policy, and Global Change***

ESES 482	Challenges of Sustainability
ENSU 303 *	Sustainable Business I
GEOG 466	Environmental Policy
GEOG 446 *	Sustainable Planning Seminar
ATMS 447	Climate Change Assessment
ATMS 449	Biogeochemical Cycles
CPSC 431	Plants and Global Change
CPSC 336	Tomorrow's Environment
LA 370 *	Environmental Sustainability
NPRE 480	Energy and Security
NRES 325 *	Natural Resource Policy Mgmt
NRES 439	Env and Sustainable Dev
TSM 311	Humanity in the Food Web

• ***Earth's Physical Systems, Resources, and Hazards***

-- *CHEM 104/105 and one from GEOL 100, 101, 107, or 208, are recommended; other courses on the list may have specific prerequisites.*

ESES 320 *	Water Planet, Water Crisis
ESE 445 *	Earth Resource Sustainability
ENSU 310 *	Renewable and Alternative Energy
ATMS 420	Atmospheric Chemistry
GEOG 401	Watershed Hydrology
GEOG 406	Fluvial Geomorphology
GEOG 408	Watershed Analysis
GEOG 467	Dynm Simul of Nat Res Problems
GEOL 333	Earth Materials and the Env
GEOL 380	Environmental Geology
GEOL 401	Geomorphology
GEOL 460	Geochemistry
GEOL 470	Introduction to Hydrogeology
CEE 330	Environmental Engineering
CHEM 360	Chemistry of the Environment
CHEM 460	Green Chemistry

NRES 351	Environmental Chemistry

• ***Visualizing the Earth System***

ATMS 305	Computing and Data Analysis
ATMS 411	Satellite Remote Sensing
ATMS 421	Earth System Modeling
CPSC 440 *	Applied Statistical Methods
GEOG 371	Spatial Analysis
GEOG 468	Biological Modeling
GEOG 469	Spatial Ecosystem Modeling
GEOG 476 *	Applied GIS to Environ Studies
GEOG 477	Introduction to Remote Sensing
GEOG 460 *	Anal & Interp Aerial Photos
GEOL 451	Methods in Applied Geophysics
GEOG 479	Advanced Geog Info Systems
NRES 454 *	GIS in Natural Resource Mgmt
NRES 455 *	Adv GIS for Nat Res Planning

• ***Earth's Biosphere and Ecology***

-- Note: IB 150, MCB 150, and IB 203 may be required as pre-requisites.

CPSC 431	Plants and Global Change
IB 363	Plants and Their Uses
IB 405	Ecological Genetics
IB 439	Biogeography
IB 444	Insect Ecology
IB 445	Chemical Ecology
IB 446	Tropical Ecology
IB 447	Field Ecology
IB 451	Conservation Biology
IB 452	Ecosystem Ecology
IB 453	Community Ecology
IB 470	Field Botany
IB 493	Statistical Ecology
IB 449	Limnology
NRES 348	Fish and Wildlife Ecology
NRES 419 *	Env and Plant Ecosystems
NRES 420 *	Restoration Ecology
NRES 429 *	Aquatic Ecosystem Conserv.
NRES 474 *	Soil and Water Conservation