



The University of Georgia

University Council
Athens, Georgia 30602

January 9, 2015

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Dear Colleagues:

The attached proposal to revise the Environmental Literacy Requirement and change the name from Environmental Literacy Requirement to Environmental Awareness Requirement will be an agenda item for the January 16, 2015, Full University Curriculum Committee meeting.

Sincerely,

William K. Vencill, Chair
University Curriculum Committee

cc: Provost Pamela S. Whitten
Dr. Laura D. Jolly

Environmental Awareness Requirement:

A Proposal to Rename and Revise the University of Georgia's
Environmental Literacy Requirement

December 9, 2014

To: THE UNIVERSITY CURRICULUM COMMITTEE

From: THE ENVIRONMENTAL LITERACY SUBCOMMITTEE

Dr. Sarah F. Covert, Chair – Forestry & Natural Resources
Dr. Alison Alexander – Journalism & Mass Communication
Dr. Marsha C. Black – Public Health
Dr. Mark Farmer – Arts & Sciences
Dr. Robert Grafstein – Public & International Affairs
Dr. William D. Lastrapes - Business
Dr. Adam Milewski – Arts & Sciences
Dr. James W. Porter - Ecology
Dr. Ajay Sharma - Education
Dr. David Spooner – Environment & Design
Dr. William Vencill – Agricultural & Environmental Sciences
Dr. R. Alfred Vick – Environment & Design

The Subcommittee's Charge

The Environmental Literacy Subcommittee was charged in the fall of 2013 with review of the Environmental Literacy Requirement (ELR) due to faculty and student concerns that:

1. many ELR certified courses lack substantive environmental content, *e.g.*, natural science courses that do not address environmental problems are currently *able* to fulfill the ELR;
2. the ELR does not sufficiently emphasize the impact of social and cultural forces on the creation and management of environmental problems, *e.g.*, social science and humanities courses that focus on environmental problems are currently *unable* to fulfill the ELR;
3. a previous request to revise and broaden the ELR (made in March 2012) lacked sufficient information on how the proposed requirement could be implemented without delaying students' degree progress.

Recommendations for Renaming and Revising the Requirement

Over the last year, the Environmental Literacy Subcommittee met six times. In addition to reviewing the history of UGA's ELR, the Subcommittee reviewed environmental curricula at other U.S. institutions, read national reports on environmental literacy, and met with a panel of three faculty experts (Drs. Jennifer Rice, Kris Irwin, and Marshall Shepherd). After this process of study and discussion, the Subcommittee's first conclusion was that taking a single

undergraduate course focused on environmental issues is not sufficient to create true environmental *literacy* in UGA's students. Thus, the Subcommittee recommends that the requirement be renamed as the "Environmental Awareness Requirement" to more accurately reflect the level of knowledge students are likely to gain by fulfilling it.

Another concern about the current ELR is that courses focusing only on the "basic scientific principles which govern natural systems" can be used to meet this requirement. A previous committee report (2003), a UGA Master's thesis (G.L. Moody 2006 *Evaluating the University of Georgia's Environmental Literacy Requirement*), and a previous Environmental Literacy Subcommittee review of the courses approved to meet the ELR (2010) all raised concerns that courses meeting this criterion often lack sufficient environmental content to make them a meaningful and appropriate means for improving environmental awareness. To solve this problem, the current Environmental Literacy Subcommittee has eliminated this criterion from the Environmental Awareness Requirement proposed below. The Subcommittee based this decision on the fact that the University's General Education Core ensures that students gain basic, natural science knowledge through their completion of the Area II requirement (*i.e.*, one physical science course and one life science course). This decision was not meant to remove science from ELR courses, but instead to acknowledge the futility of asking basic introductory science courses to do "double duty," *i.e.*, to cover the discipline-specific building blocks of a scientific subject while also emphasizing the impacts and management of complex environmental problems.

The causes and consequences of environmental problems are usually heavily influenced by social and cultural factors. For this reason, the Environmental Literacy Subcommittee strongly recommends that courses studying environmental issues through a social science or humanities lens be allowed to meet the Environmental Awareness Requirement.

The following proposal was approved by nine subcommittee members at a meeting on September 3, 2014. Two additional subcommittee members who could not attend that meeting indicated in advance that they supported a similar, prior draft of this proposal.

Proposed Environmental Awareness Requirement

As noted in the University of Georgia's 2020 Strategic Plan, we live in a time of unprecedented environmental challenges. Unsustainable environmental practices pose serious and pressing threats to the health of human society and the earth's ecosystems. U.S. citizens and Georgia residents will increasingly need to make decisions about environmental issues and policies. In recognition of this, the University of Georgia is committed to educating its undergraduate students about environmental problems and the need to seek solutions to them. The causes and consequences of environmental challenges are complex and can be studied from a variety of disciplinary and interdisciplinary perspectives. Thus, this requirement allows students to study environmental problems in a diverse set of courses offered by a wide range of University departments. This approach allows students to take an Environmental Awareness course within their disciplinary focus, or in an area that extends their knowledge in an entirely new direction, depending on their academic needs and interests.

To achieve the goals of the Environmental Awareness (EA) Requirement, every University of Georgia undergraduate student must acquire a basic understanding of:

- A. The interactions between human activity and the environment at local, regional, or global scales; OR
- B. The ethical, cultural, economic, or political forces that affect environmental problems and policies.

This requirement can be satisfied by taking a single course that fulfills either criterion A or B, or a single course that fulfills both. EA Requirement courses must focus a significant amount of their course content on environmental issues. It also is expected that they will include enough natural science for students to make sense of the environmental problem under study.

In support of this requirement, the University Curriculum Committee Chair will appoint a standing EA Requirement Subcommittee. The membership of this subcommittee will represent the breadth of natural science and social science expertise on campus. It will have a minimum of five members, with one member being an undergraduate student. This subcommittee will develop expected learning outcomes for courses meeting the EA Requirement. After these learning outcomes are approved by the University Curriculum Committee, the EA Requirement Subcommittee will use them to determine if courses nominated by individual academic departments can be used to fulfill the EA Requirement. Every five years, the Subcommittee will re-evaluate previously approved courses to ensure that they still meet the EA Requirement. Current course syllabi, as well as course objectives and topical outlines from the Bulletin, will be used to evaluate potential and existing EA Requirement courses. If a course is not approved by the EA Requirement Subcommittee, the nominating department will have an opportunity to provide additional information and/or to revise the course.

Initial Implementation

The EA Requirement Subcommittee will invite all academic units on campus to nominate courses thought to be capable of meeting the EA Requirement. In particular, departments will be encouraged to nominate new or existing courses that meet criterion B, because courses focused on social science and humanities topics did not fulfill the previous ELR. In addition, the Subcommittee will review all courses previously approved as meeting ELR criterion 2 (i.e., courses that address *the consequences of human activity on local, regional, and global natural systems*) to ensure that they also meet the revised EA Requirement. It is expected that most, if not all, of these courses will fulfill the EA Requirement because criterion 2 in the ELR is narrower than criterion A of the EA Requirement.

The proposed EA Requirement can be readily implemented without delaying students' degree progress because sufficient courses to meet the anticipated student need for this requirement are already being offered each year. Of the 3,804 undergraduates who graduated in the spring of 2014, 2,834 took at least one ELR criterion 2 course while they were in college (data from UGA Registrar). The remaining 970 students in this graduating class completed their

ELR with a criterion 1 course. If criterion 1 courses are removed from the EA requirement as proposed above, then approximately 243 additional students/year (i.e., 970 students/4 years = 243 students/year) will need to be accommodated in courses approved for the EA requirement. UGA currently has more than enough open seats/year in courses meeting ELR criterion 2 to meet this need; i.e., during the 2013-2014 academic year, there were 1,974 open seats in courses meeting criterion 2 (data from UGA Registrar). Adding courses that meet criterion B to the EA Requirement course list will only increase UGA students' ability to complete this requirement in a timely fashion.

Courses Approved to Satisfy the Environmental Literacy Requirement
Beginning Fall 2013

Courses highlighted in green meet ELR criterion 2 and are scheduled to be taught in 2014					
COURSE ID	COURSE NAME	Satisfies ELR Criterion 2	Max 2014 Academic Year Enrollment	GEN. ED. REQUIREMENT MET	1000- or 2000- level courses not in GEN. ED. curriculum
ADSC 4010	Issues in Animal Agriculture	X			
ANTH 1102	Introduction to Anthropology	X	2450	AREA 5	
ANTH 2120H	Introduction to Anthropology (Honors)	X	140	AREA 5	
ANTH 4070/6070	Cultural Ecology	X			
CHEM 1110	Elementary Chemistry	X	250	AREA 2	
COMM 3320	Environmental Communication	X			
CRSS(WASR) 1020	Introduction to Water Resources	X	60	AREA 2	
CRSS(APTC) 3050-3050L	Introduction to Water Quality	X			
CRSS(FANR) 3060	Soils and Hydrology	X	210		
CRSS 4340/6340	Weed Science	X	70		
ECOL 1000	Ecological Basis of Environmental Issues	X	872	AREA 2	
ECOL 1000H	Ecological Basis of Environmental Issues (Honors)	X	44	AREA 2	
ECOL(BIOL) 3500-3500L	Ecology	X	280		
ECOL 3505H-3505L	Ecology (Honors)	X	36		
ECOL(BIOL) 4150/6150- 4150L/6150L	Population Biology of Infectious Diseases	X	40		
ECON 2100	Economics of Environmental Quality	X	240	AREA 5	
EETH 4200/6200	Environmental Concepts	X			
EHSC 3060	Introduction to Environmental Health Science	X	328		
ENVM 3060	Principles of Resource Economics	X	100		
ENVM 4650/6650	Environmental Economics	X	50		
ENVM 4800/6800	Water Resource Economics and Management	X	51		

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Beginning Fall 2013

COURSE ID	COURSE NAME	Satisfies ELR Criterion 2	Max 2014 Academic Year Enrollment	GEN. ED. REQUIREMENT MET	1000- or 2000- level courses not in GEN. ED. curriculum
ENVM(AAEC) 4930/6930	Environmental Law and Governmental Regulation	X			
FANR(MARS) 1100	Natural Resources Conservation	X	556	AREA 2	
FANR(ECOL)(GEOG) 1200	Natural History of Georgia	X	442	AREA 2	
FANR(GEOG) 2200	International Issues in Natural Resources and Conservation	X	30	AREA 5	
FANR 3200	Ecology of Natural Resources	X	120		
FANR(ANTH)(ECOL)(GEOG)(INTL)(RLST) 4271/6271	Field Studies in Natural Resources	X	100		
FANR(ECOL) 4810/6810	Natural Resources Law	?			
GENE(BIOL) 3000	Evolutionary Biology	X	380		
GEOG 1101	Human Geography: People, Places, and Cultures	X	2148	AREA 5	
GEOG 1112	Introduction to Weather and Climate	X	735	AREA 2	
GEOG 1125	Resources, Society, and the Environment	X	348	AREA 2	
GEOG 2250H-2250D	Resources, Society, and the Environment (Honors)	X	30	AREA 2	
GEOG 3210	Biogeography	X			
GEOG(PBIO) 4220/6220	Ecological Biogeography	X			
GEOG 4810/6810	Conservation Ecology and Resource Management	X	40		
GEOL 1120	Environmental Geoscience	?		AREA 2	
GEOG 1121H	Earth Processes and Environments (Honors)	X	24	AREA 2	
GEOL 1122	Earth's History of Global Change	X	176	AREA 2	
GEOL 1122H	Earth's History of Global Change (Honors)	X		AREA 2	
GEOL 2120	Introduction to Environmental Geology	X			x

Courses Approved to Satisfy the Environmental Literacy Requirement
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COURSE ID	COURSE NAME	Satisfies ELR Criterion 2	Max 2014 Academic Year Enrollment	GEN. ED. REQUIREMENT MET	1000- or 2000- level courses not in GEN. ED. curriculum
GEOL 2350H	Physical Geology (Honors)	X		AREA 2	
GEOL 3120-3120L	Geological Hazards	X			
GEOL 3150	Coastal Processes and Conservation	X			
GEOL 4750/6750	Earth Sciences for Middle School Teachers	X	35		
HORT 2000	Horticultural Science	?			x
HORT 4990/6990	Environmental Issues in Horticulture	X	20		
LAND 1500	Design and the Environment	X	100	AREA 4	
LAND 2310	Introduction to Sustainability	X	100		x
MARS 1010-1010L	The Marine Environment	X	390	AREA 2	
MARS 1011	Introduction to the Marine Environment	X	80	AREA 2	
MARS 1015H-1015L	The Marine Environment (Honors)	X		AREA 2	
MARS 1020-1020L	Biology of the Marine Environment	X	259	AREA 2	
MARS 1025H-1025L	Biology of the Marine Environment (Honors)	X		AREA 2	
PBIO(BIOL) 1210	Principles of Plant Biology	X	352	AREA 2	
PBIO(BIOL) 1210H	Principles of Plant Biology (Honors)	X	64	AREA 2	
PBIO 3650	Natural History of Georgia Plants	X			
PHIL(EETH) 4220/6220	Environmental Ethics	X	35		
SOCI 3400	Environmental Sociology	X	20		
Total 2014 seats available in "green" classes:			11805		
Total 2014 seats available in "green" classes that also meet a Gen. Ed. req't:			9790		