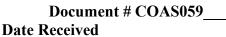
UCC 92





CATALOG YEAR \_\_2011\_ (Please use separate form for each add/change)

COLLEGE/SCHOOL/SECTION: \_\_\_College of Arts and Sciences\_\_\_\_\_

Course:	Add: X Delete:	Note: Approved for Core by
(check all that apply)		Core Curriculum Committee,
	Title	3/4/11.
	SCH	
	Description _	
	Prerequisite	
	New course will be part of major _ENSC	Cminor ENSC as a required _X
	or elective course	
	New course will introduce X_, reinfor	ce, or apply concepts

If new, provide Course Prefix, Number, Title, <u>Measurable</u> Student Learning Outcomes, SCH Value, Description, prerequisite, and lecture/lab hours if applicable. If in current online catalog, provide change and attach text with changes in red and provide a brief justification.

**Program:** Delete: \_\_\_\_\_ Add: \_\_\_\_ Change: \_\_\_\_\_ Attach new/changed Program of Study description and 4-year plan. If in current catalog, provide change and attach page with changes in red.

Minor: Add: \_\_\_\_ Delete: \_\_\_\_ Change: \_\_\_\_ Attach new/changed minor. If in current catalog, provide change and attach page with changes in red.

**Faculty:** Add: \_\_\_\_ Delete: \_\_\_\_ Change: \_\_\_\_ Attach new/changed faculty entry. If in current catalog, provide change and attach page with changes in red.

**College Introductory Pages:** Add information: \_\_\_\_ Change information: \_\_\_\_ Attach new/changed information. If in current catalog, provide change and attach page with changes in red.

**Other**: Add information: \_X\_ Change information: \_\_\_\_ Attach new/changed information. If in current catalog, provide change and attach page with changes in red. Add ENSC to options in Natural Science component of Core. APPENDIX A Core Curriculum and Optional Course Information

COMPONENT AREA	COURSE OPTIONS	SCH
Natural Science**	ASTR, BIOL, CHEM, <mark>ENSC,</mark> EPSC,	
	GEOL or PHYS	8

COURSE SELECTIONS TO FULFILL CORE OPTIONS

NATURAL SCIENCE ENSC 1301/1101

Introduction to Environmental Systems/ Introduction to Environmental Systems Laboratory

Approvals:	Signature	Date
Chair Department Curriculum Committee		 
Chair Department		
Chair College Curriculum Committee		 
Dean		 

03/01/10

### ENSC 1301 Introduction to Environmental Systems

I. Course Description: An introductory course for majors and non-majors that applies the principles of the scientific method and critical thinking to environmental issues through a multidisciplinary approach. Students will gain an understanding of biotic interactions in environmental systems and the human impact as it relates to public policy and natural resource use. The course will focus on environmental sustainability and the ecological principles essential to understanding processes in environmental systems. This is a prerequisite course for Environmental Science (ENSC/BIOL 3401) and must be taken concurrently with the laboratory course ENSC 1101.

#### II. Learning Outcomes

Students will be able to:

- Relate ecological principles to environmental systems.
- Interpret the human impact on biological processes in environmental systems.
- Identify environmentally sustainable solutions to environmental problems.

## III. TEXTBOOK

• Miller, G.T. and S. Spoolman. 2012. Living in the Environment: Principles, Connections, and Solutions, 17<sup>th</sup> edition. ISBN-10:0538735341

## **IV. INSTRUCTIONAL ACTIVITIES AND METHODS**

• The lectures will be available online but attendance is required to receive supplementary material and to participate in class activities. The course will be taught by PowerPoint, videos, and discussions.

Exams (4)	60%
Final	20%
<b>Class Activities</b>	10%
<b>Group Presentation</b>	10%

Students will present an assessment of an environmental issue and possible solutions as a group presentation (at least 3 students). *The Final Exam is mandatory and cumulative*.

# INTRODUCTION TO ENVIRONMENTAL SYSTEMS

#### TENTATIVE LECTURE AND EXAM SCHEDULE

WEEK	ТОРІС	REQUIRED READING
1	Introduction & Procedure, Environmental Problems, Their	Chapter 1
	Causes and Sustainability	
	Environmental Problems, Their Causes and Sustainability	
2	Science, Systems, Matter, & Energy	Chapter 2
3	Ecosystems: What are they and how do they work?	Chapter 3
	EXAM #1	
	Group Presentations	
4	Evolution and Biodiversity	Chapter 4-5
	Biodiversity, Species Interactions and Population Control	
5	The Human Population and its Impact	Chapter 6-7
	Climate and Biodiversity	
6	Biodiversity Discussion and Review	
	EXAM #2	
	Group Presentations	
7	Aquatic Biodiversity	Chapter 8-9
	Sustaining Biodiversity: The Species Approach	
8	Sustaining Terrestrial Biodiversity: The Ecosystem Approach	Chapter 10-11
	Sustaining Aquatic Biodiversity	
9	Sustainability of Biodiversity & Review	
	EXAM #3	
	Group Presentations	
10	Food, Soil, and Pest Management	Chapter 12
11	Environmental Hazards and Human Health	Chapter 17
	Environmental Toxicology and Risk Management	
12	Climate Disruption and Ozone Depletion	Chapter 19
	Impacts of climate change	
13	EXAM #4	
	Group Presentations	Chapter 23
	Economics, Environment, and Sustainability	
14	Politics, Environment and Sustainability	Chapter 24
15	Environmental Worldviews, Ethics, and Sustainability and	Chapter 25
	Review	
	Group Presentations	
16	EXAM #5 (FINAL)	