



CATALOG YEAR 2011
(Please use separate form for each add/change)

UCC89

COLLEGE/SCHOOL/SECTION: College of Arts and Sciences

Approved for Core, 3/4/11
by Core Curr Comm.

Course: Add: X Delete: _____

(check all that apply) Number ENSC 1101

Title Introduction to Environmental Systems Laboratory. _____

SCH 1 SCH _____

Description An introductory laboratory course for majors and non-majors that emphasizes the principles of environmental science. Students will conduct observational and manipulative experiments that examine effects of environmental factors on the biology and ecology of an ecosystem. The course will also involve discussions of case studies in environmental sustainability. This course must be taken concurrently with Introduction to Environmental Systems (ENSC 1301).

Prerequisite _____

New course will be part of major ENSC minor ENSC as a required X or elective _____ course

New course will introduce X, reinforce _____, or apply _____ concepts

Justification: This course is intended to serve as a pipeline for the BS in Environment Science, which is currently a low performing degree. By adding a freshman level course into ENSC degree a greater number of students will be exposed to the environmental sciences, which should increase the number of students in the major.

If new, provide Course Prefix, Number, Title, **Measurable** 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: _____ Change information: _____ Attach new/changed information. If in current catalog, provide change and attach page with changes in red.

Approvals:

Signature

Date

Chair

Department Curriculum Committee

Chair

Department

Chair

College Curriculum Committee

Dean

03/01/10

ENSC 1101
Introduction to Environmental Systems Laboratory Course

I. Course Description: An introductory laboratory course for majors and non-majors that emphasizes the principles of environmental science. Students will conduct observational and manipulative experiments that examine effects of environmental factors on the biology and ecology of an ecosystem. The course will also involve discussions of case studies in environmental sustainability. This course must be taken concurrently with Introduction to Environmental Systems (ENSC1301).

II. Learning Outcomes:

- To apply the scientific method to the study of environmental science.
- To identify human impacts on environmental systems.
- To develop scientific writing skills.

III. TEXTBOOK

No textbook is required for the laboratory course.

IV. INSTRUCTIONAL ACTIVITIES AND METHODS

The laboratory course will involve observational and manipulative experiments. Outdoor labs will include field sampling trips and observational field trips.

Grading Procedure: 60% lecture; 40% lab

Lecture		Lab	
Exams (4)	60%	Laboratory A/Q	25%
Final	20%	Laboratory Reports	50%
Class Activities	10%	Lab Practicum	25%
Final Project	10%		

ENSC 1101

Introduction to Environmental Systems Laboratory Course

Tentative Schedule

Week	Topic
1	Laboratory Introduction and Discussion of Scientific Writing Mineral and Plant Nutrition
2	Environmental Sustainability
3	Hierarchy and Texas Biomes - Native Plants
4	Systematics and the Dichotomous Key
5	Ecological Footprint
6	Waste Water Treatment Plant Field Trip
7	Simulating Effects of Acid Rain
8	Ecological Symbiosis
9	Simulating Effects of Acid Rain cont.
10	The Biology and Chemistry of Soil.
11	Drinking Water Treatment Plant Field Trip
12	Ecological Symbiosis cont.
13	Battling Germs with Disinfectants Bacterial Contamination of Water
14	Battling Germs with Disinfectants cont. Bacterial Contamination of Water cont.
15	Lab Practicum

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Final Exam Week