

New Course Proposal

Submit completed form electronically

1. **Course prefix and course number:** ES 354
2. **Course title:** Marine Conservation: Science, Policy and Management
3. **Abbreviated title for class schedule** (30 characters or less): Marine Conservation
4. **Credit hours:** 4
(note: if credits are variable, list range of credits (e.g. 1-8 credits))
5. **Catalog description:** Explores physical, chemical, geological, and ecological processes in coastal marine ecosystems. Covers the foundational marine science associated with coastal oceanography and ecosystem processes, and then applies these learnings by examining approaches, tools, and policies associated with marine coastal resource management, restoration, and conservation. Significant focus will be on utilizing GIS and remote sensing technologies to better understand complex coastal marine management challenges.
6. **Prerequisites (to add each additional prerequisite, start a new line):**
(See attached Note for samples)
 - A. (course prefix, (space) and number) ES 102 or BI 213 or BI 103 or
 - B. (course prefix, (space) and number) or or or or
 - C. (course prefix, (space) and number) or or or or
7. **Co-requisites (including labs, if any):**
 - A. (course prefix, (space) and number) or or or or
8. **Major/Class restrictions:** Please indicate any class or major restrictions: None
9. **Is course repeatable?** Yes No X **If Yes, list maximum credits:**
10. **Labs requirements:** If course includes a lab: # of hours lecture: ; # of hours lab:
11. **Fees:** List any course fees: \$15
12. **Grade Mode:** Graded only: Pass/No Pass only: Option: x
13. **CIP Code:** Six-digit CIP code (check with your Division Director):

14. Special qualifications; Is course proposed for (yes/no):

A. University Studies? Yes If yes, list Strand(s) H

B. Honors?

15. Cross-listing: List any cross-listing (and please complete the Cross-list proposal form at <https://inside.sou.edu/provost/curriculum.html>): and and and
and

16. Strategic justification for proposed course:

A. **Rationale:** What is the overall strategic rationale for offering this course? We currently teach only one course (ES 353: Oceanography) that emphasizes marine resources. We have found that many of our students have an interest in marine resources and while we cannot offer an extensive curriculum in this area, we can offer a fundamentals course to assist students planning to work in regions that include marine resource management. We expect that we will likely be unable to continue to teach ES 353 after the retirement of Dr. Alissa Arp. This course will replace oceanography as a broader marine resources course.

B. Alignment:

1. How does this course align with the unit's mission plan?

This course integrates science, technology, policy and management in the context of coastal and marine ecosystems. It challenges students to synthesize information across several disciplines, and then communicate in written and verbal form potential policy and management solutions.

2. How does the course fit into the rest of the unit's curriculum?

This course is an upper-level elective, designed to be taught every 2 years. It will serve students interested in non-profit and government natural resource protection jobs by focusing on science informed policy and management. The course will be taught in the context of coastal and marine ecosystems, but many of the concepts can be applied to conservation and management of public lands.

C. **Enrollment:** What is the new course's estimated enrollment each time it is offered over a three-year period? Year 1: 30; Year 2, 40; Year 3, 40

D. **Resource evaluation:** What resources – faculty, equipment, lab space, etc. -- will be needed to offer this course and how will those resources be obtained?

1. *Faculty:*

a. Who will teach the course? Ms. Leslie Eldridge

b. Evaluate unit's faculty availability and/or needs and the impact on other teaching obligations. Ms. Eldridge is currently teaching a substantial number of introductory labs. Enrollment in these labs has declined

substantially. This course will be rotated in our sequence of upper-division courses.

- c. If additional faculty members are needed, how will that need be met? No additional staffing needed.

2. *Facilities*: Cite any additional need for classrooms, equipment or lab space; explain how that need(s) will be met. This course will not require any special equipment or labs.

3. *Other*:

- a. Are Hannon Library resources sufficient to meet the needs of this course? Yes (see attached email correspondence)
- b. Are any other resources needed to support this course? No
If so, please explain how they will be obtained.

E. External impact:

1. What is the expected effect of this course on existing programs elsewhere in the university? We will offer this course as an H strand course to replace ES 353. We expect that the course will compete with existing H strand courses until such a time as University Studies requirements are changed.

NOTE: Please document your contact with other academic programs which may be affected by this new course and the response you received.

2. Will any of your prerequisites affect other academic programs? No

NOTE: Please document your contact with other academic programs which may be affected by this new course and the response you received.

17. Syllabus (condensed)

*(Attach an accompanying, condensed syllabus, which should include the following items. Schedules and similar details are **not** required.)*

- A. Course description (same as Catalog description, above)
- B. Learning objectives of the course
- C. Required texts
- D. Course format
- E. Other – any other relevant materials needed to explain the goals and teaching methods of this course.

Approvals:

Katie Pittman

Signature of Division Director

10/10/19

Date

4/29/16

ES 3XX Marine Conservation: Science, Policy, and Management

Course Description: Explores physical, chemical, geological, and ecological processes in coastal marine ecosystems. Covers the foundational marine science associated with coastal oceanography and ecosystem processes, and then applies these learnings by examining approaches, tools, and policies associated with marine coastal resource management, restoration, and conservation.

Learning Objectives: Learning outcomes for this class are that individuals will:

- 1) Be able to define and describe fundamental scientific processes and major national/international laws or protocols relevant to environmental problems in marine and coastal ecosystems
- 2) Be able to synthesize information from biological and physical sciences with relevant policy and management regimes to evaluate integrated solutions to coastal and marine social-ecological systems
- 3) Explain how coastal marine science and management can be better understood and managed through new technologies, such as geospatial information systems, and remote sensing
- 4) Recognize the role of science, technology and society in creating effective coastal marine policy and management
- 5) Analyze the consequences of climate change and ocean acidification on the individual, society and environment
- 6) Evaluate how coastal marine ecosystem science, public engagement and spatial data inform our understanding of social-ecological problems.

Required Texts:

Marine Community Ecology and Conservation by Mark Bertness; John Bruno; Brian Silliman; Jay Stachowicz eISBN-13: 9781605353968

Course Format:

The class will have 2 110-minute sessions per week. Class will be a mix of lectures, discussion, activities and case studies. Course will be divided into 3 parts:

- I. Coastal and Marine Processes: Physical and Ecological Systems
- II. Coastal and Marine Law and Policy
- III. Integrated Social-Ecological Systems and Management