

Course Change Request

Date Submitted: 10/23/17 4:45 pm

Viewing: **EOSC 594 : Special Topics in Environmental and Ocean Sciences**

Last approved: 04/26/17 2:57 am

Last edit: 11/06/17 3:37 pm

Changes proposed by: kaufmann

In Workflow

1. **EOS Chair**
2. **AS Associate Dean**
3. Registrar
4. Banner

Programs
referencing this
course

[MS-EOSC: Environmental and Ocean Sciences](#)

Approval Path

1. 11/07/17 3:12 pm
Sarah Gray
(sgray):
Approved for EOS
Chair

Contact Person(s)

Name:	E-mail:	Campus Phone:
Ron Kaufmann	kaufmann	5904

Effective Term Spring 2018

Subject Code EOSC Course Number 594

Department Environmental & Ocean Sciences (EOS)

College College of Arts & Sciences

Title of Course Special Topics in Envi & Ocean

Catalog Title Special Topics in Environmental and Ocean Sciences

History

1. Apr 26, 2017 by
Ronald Kaufmann
(kaufmann)

Credit Hours **1-4** ~~2-4~~

Weekly Contact Hours Lecture: **0** ~~2-4~~ Lab: 0 Other: 0

Catalog Course Description Topics of special interest or unique opportunity. Prerequisites may be listed for these offerings.

Primary Grading Mode Standard Grading System- Final

Method(s) of delivery Lecture

Faculty Course Workload **Other**

Please specify: **Depends on class format**

Is this course cross-listed?

No

Prerequisites?

Does this course have concurrent Prerequisites?

No

Are there 1 or more Co-Requisites?

No

Is this course a topics course?

No

Is this course repeatable for credit?

Repeatable with different Topics

Does this meet any of the following Undergraduate Core Curriculum Requirements?

Course attributes

This Course Change/Course Proposal will be sent to the Dept Chairs for the Majors/Minors/Concentrations selected below:

This Course can apply to the following Majors/Minors/Concentrations:

Department Restrictions:

Major Restrictions:

Class Restrictions:

Level Restrictions: Include

Level Codes: GR

Degree Restrictions:

Program Restrictions:

Campus Restrictions:

College Restrictions:

Student Attribute Restrictions:

Enter the vote of the Department on this course:

Yes: 9 8

No: 0

Abstain: 0 1

Rationale:

Expanding the units range for this course to enable future special topics classes for 1 unit.

Supporting documents

[Graduate Course Renumbering 2017-02-15.pdf](#)

Impact

Discuss the likely effects on both department curriculum and curricula of other departments/units

This will expand the range of possible course options for students within the Environmental and Ocean Sciences MS program.

Will this change have any staffing/budgetary impact?

Will this change impact student enrollment numbers?

Course Reviewer
Comments

Key: 2859

Program Change Request

Date Submitted: 11/06/17 3:40 pm

Viewing: **MS-EOSC : Environmental and Ocean Sciences**

Last approved: 07/20/17 3:16 pm

Last edit: 12/07/17 11:36 pm

Changes proposed by: kaufmann

Catalog Pages
Using this
Program

[Master of Science in Environmental and Ocean Sciences](#)

Contact Person(s)

Name:	E-mail:	Campus Phone:
Ron Kaufmann	kaufmann	5904

Effective Catalog 2018 - 2019

Department Environmental & Ocean Sciences

College/School College of Arts & Sciences

Program Level Graduate (GR)

Program Type Major

Major Code EOSC (Environmental & Ocean Sciences)

Degree Code MS (Master of Science)

Program Name
Environmental and Ocean Sciences

Program
Description

In Workflow

1. **MARS Chair**
2. **Catalog Editor Setup**
3. **AS Associate Dean**
4. Provost
5. Catalog Editor Final

Approval Path

1. 11/07/17 5:03 pm
Sarah Gray (sgray):
Approved for MARS Chair
2. 11/07/17 5:32 pm
Annie O'Brien (aobrien):
Approved for Catalog Editor Setup

History

1. Jan 31, 2017 by Ronald Kaufmann (kaufmann)
2. Apr 13, 2017 by Ronald Kaufmann (kaufmann)
3. May 26, 2017 by Ronald Kaufmann (kaufmann)
4. Jun 14, 2017 by Annie O'Brien (aobrien)

5. Jun 19, 2017 by
Ronald Kaufmann
(kaufmann)
6. Jul 19, 2017 by
Annie O'Brien
(aobrien)
7. Jul 20, 2017 by
Ronald Kaufmann
(kaufmann)

Number of Units 30

Program Requirements and Courses

The Environmental and Ocean Sciences MS Program includes two tracks, Environmental Science and Marine Science. The selection of a track should be based on the nature of a student's thesis research.

Requirements for the Degree

Course List

Code	Title	Units
Coursework (minimum 19 units)		
EOSC 500	Core Seminar I	2
EOSC 501	Core Seminar II	2
EOSC 511	Statistics	3
Graduate Science Courses (2), with lab ¹		8
Graduate Science Courses (11 units), at least two with lab ¹		11
	Graduate Elective or Science Course, with lab	4
Graduate Science Courses (E = Environmental, M = Marine)		
EOSC 520	Introduction to Remote Sensing (E)	4
EOSC 531	Human Impacts on the Coastal Environment (E,M)	4
EOSC 532	Marine Community Ecology (M)	4
EOSC 533	Plankton Ecology (M)	4
EOSC 550	Geological Oceanography (E,M)	4
EOSC 551	Biological Oceanography	4
EOSC 552	Marine Geochemistry (E,M)	4
EOSC 573	Climatology (E, M)	4
EOSC 574	History of the Earth and Climate	4
& 574L	and History of the Earth and Climate Laboratory (E,M)	
EOSC 585	Environmental Geology (E)	4
EOSC 587	Surface Water Hydrology (E)	4
Graduate Electives ²		
EOSC 514	Introduction to Maps and Spatial Data Analysis	4
EOSC 515	Geographic Information Systems	4
EOSC 561	Invertebrate Zoology	4
EOSC 562	Biology of Fishes	4
EOSC 565	Marine Mammals	3
EOSC 594	Special Topics in Environmental and Ocean Sciences	1-4

Code	Title	Units
POLS 529	Law of the Sea	3
Research/Thesis (minimum 11 units)		
EOSC 596	Research ³	0.5-7
Graduate Elective or Science course may replace up to 4 units of EOSC 596 .		
EOSC 597	Thesis ³	1

A minimum of 1 unit of [EOSC 597](#) must be applied toward the degree requirements.

¹Students in the Marine Science track must take at least two graduate science courses (8 units) with an M designation. Students in the Environmental Science track must take at least two graduate science courses (8 units) with an E designation. Electives could be E or M for students in either track.

²A maximum of six undergraduate units taken at the university may be applied to the graduate program. Examples include [BIOL 301](#), [BIOL 364](#), [BIOL 416](#), [BIOL 477](#), [BIOL 478](#), [POLS 349](#). This list is not exhaustive; consult the graduate program director. See the current Undergraduate Course Catalog for course descriptions. No course taken to fulfill an undergraduate deficiency may count toward the required units in the graduate program.

³Students may take these courses for 0.5 unit only after they have completed all of the program requirements except [EOSC 597](#). Students who are enrolled for 0.5 unit of [EOSC 596](#) or [EOSC 597](#) are considered half-time.

Thesis Committee

A thesis committee of at least three members will be established during the second semester of enrollment. It will consist of at least one full-time USD graduate faculty member and may include members from approved outside institutions. The entire thesis committee will meet with the student semi-annually to assess progress and give advice. Following approval of the thesis proposal by both the thesis chair and the graduate program director and satisfaction of any deficiencies noted at the time of admission to the program, the student will be recommended for candidacy by the thesis committee. Adequate progress will need to be made to maintain candidacy (see candidacy policy, available in the graduate handbook). Additional courses related to the student's area may be required by the committee chair. All students must be enrolled for at least 1 unit to remain active in the program. Students who have completed all program requirements except [EOSC 597](#), including all required courses, may enroll in 0.5 units to remain active in the program.

Recommended Program of Study

First Year

Semester I	Units
EOSC 500 Core Seminar I	2
Graduate Science Course	4
Graduate Science Course or Elective	3-4

Semester II

EOSC 501 Core Seminar II	2
Graduate Science Course	4
Graduate Science Course or Elective	3-4
EOSC 511 Statistics	3

Second Year

Semester I

EOSC 596 Research 6-7

EOSC 596 or Graduate Elective 3-4

Semester II

EOSC 597 Thesis 1

Note: ~~Note:~~ Students who will not finish by the end of their second summer should take 9 units in semester I of the second year and 1 unit of EOSC 596 in semester II of the second year. These students should take 0.5-1 unit of EOSC 597 each semester until they finish.

Combined Degree Program (B.A./M.S.)

Undergraduates who are completing a degree in Environmental and Ocean Sciences can apply for admission to the M.S. program before finishing the B.A. Students can apply up to 12 units of course work toward the requirements for both degrees. Applications are accepted during a student's junior or senior year as an undergraduate, following the standard application procedure for admission to the Environmental and Ocean Sciences M.S. Program. Admitted students have undergraduate status until they complete their B.A. degree requirements, then become graduate students during the subsequent fall semester. Students need to complete a minimum of 18 units while they have graduate student status, in order to satisfy the combined degree program requirements. Below are recommended programs of study for students enrolled in the combined degree program from each of the three pathways in the undergraduate Environmental and Ocean Sciences major. The recommended program of study is given for the student's junior and senior year as an undergraduate, and for the student's first year solely in the graduate program. For the freshman and sophomore years, see the recommended program of study for the undergraduate program in Environmental and Ocean Sciences.

Recommended Program of Study - Marine Ecology Pathway

Junior Year

Semester I

	Units
<u>EOSC 300</u> Environmental Issues	3
<u>or 303</u> Environmental Issues Abroad	
<u>EOSC 301</u> Research Applications in Environmental and Ocean Sciences	4
<u>BIOL 300</u> Genetics	3
<u>EOSC 496, 498,</u> Research	1
<u>or 499</u> Internship	
Independent Study	

CC or Electives **3-6**

Semester II

Pathway electives* **7-8**

EOSC 496, 498, Research **1**

or 499 Internship

Independent Study

CC or Electives	6-9
Senior Year	
Semester I	
Pathway elective*	3-4
Upper-division BIOL course	4
EOSC 495 Senior Seminar	1
CC or Electives	6-9
Semester II	
Pathway electives*	7-8
Upper-division BIOL course	3-4
CC or Electives	3-6

Recommended Program of Study - Environmental Science Pathway

Junior Year		
Semester I		Units
EOSC 300	Environmental Issues	3
or 303	Environmental Issues Abroad	
EOSC 301	Research Applications in Environmental and Ocean Sciences	4
EOSC 496, 498,	Research	1
or 499	Internship	
	Independent Study	
CC or Electives		4-9
Semester II		
EOSC 314 *	Introduction to Maps and Spatial Data Analysis	4
Pathway elective*		3-4
EOSC 496, 498,	Research	1
or 499	Internship	
	Independent Study	
CC or Electives		6-9
Senior Year		
Semester I		
Pathway elective*		3-4
EOSC 495	Senior Seminar	1
CC or Electives		8-12
Semester II		
Pathway electives*		7-8
CC or Electives		9-12

Recommended Program of Study - Environmental Studies Pathway

Junior Year

Semester I

Units

<u>EOSC 300</u>	Environmental Issues	3
or <u>303</u>	Environmental Issues Abroad	
<u>EOSC 301</u>	Research Applications in Environmental and Ocean Sciences	4
<u>EOSC 496, 498,</u>	Research	1
or <u>499</u>	Internship	
	Independent Study	

CC or Electives **4-9**

Semester II

<u>EOSC 314</u> *	Introduction to Maps and Spatial Data Analysis	4
<u>PHIL 338</u>	Environmental Ethics	3
or <u>344</u>	Environmental Justice	
<u>EOSC 496, 498,</u>	Research	1
or <u>499</u>	Internship	
	Independent Study	

CC or Electives **6-9**

Senior Year

Semester I

<u>EOSC 305</u>	Environmental Assessment Practices	3
Pathway elective*		3-4
<u>EOSC 495</u>	Senior Seminar	1
CC or Electives		6-9

Semester II

Pathway electives*		6-7
CC or Electives		6-9

*** If chosen appropriately, these courses can apply to both the B.A. and M.S. degree program requirements (up to 12 units total).**

Recommended Program of Study - Graduate

First Year

Semester I

Units

<u>EOSC 500</u>	Core Seminar I	2
Graduate Science Course or Elective		3-4
<u>EOSC 596</u>	Research	3-4

Semester II

<u>EOSC 501</u>	Core Seminar II	2
<u>EOSC 596</u>	Research	2-3
undefined		3-4
<u>EOSC 597</u>	Thesis	1

Note: Students who will not finish by the end of their first year in the M.S. program should take 8 units in semester II of the first graduate year and 0.5-1 unit of EOSC 597 each semester until they finish.

Enter the vote of the Department on this program:

Yes: **8**

No: **0**

Abstain: **1**
(sabbatical)

Justification for request

1) Revision to replace Graduate Statistics (EOSC 511) with another graduate science course and add EOSC 573 to the list of graduate science courses that students can take. As the program has become more heterogeneous, no single statistics course seems to be appropriate for all students moving through the program. We are exploring alternatives, but for now, it seems best to replace the statistics requirement with another graduate science course. As part of the recent program revision, we also added statistics as an admissions requirement. Thus, all students in the programs will have at least an introduction to statistics. 2) Addition of EOSC 573 to the list of graduate sciences courses. Not including EOSC 573 in the initial program proposal was an inadvertent oversight that we're now correcting. 3) Creation of a BA/MS combined degree program for Environmental and Ocean Sciences. This new program will provide opportunities for undergraduate students in the Environmental and Ocean Sciences to continue on to a MS degree, applying up to 12 units of upper-division course work to the requirements for both the BA and MS degrees. Students who decide to enter the combined degree program could save considerable time and money compared to completing the BA and MS degrees separately.

Supporting Documents

Reviewer Comments

Key: 109