

Program Modification

Program modifications must be submitted by October 15, 2014, and finalized by the end of that fall semester for catalog production.
Enter data in **YELLOWED** areas.

Date (Change date if modified and update the file name with the new date): 2014 2015 Catalog Copy 8.26.13

Program Area: Environmental Science & Resource Management: Resource Management Emphasis, B.S.

Semester /Year First affected: Fall 2014

Instructions: Please use this Program Modification form for changes to existing program requirements, units, outcomes, emphases or options, or for other programmatic concerns. For minor changes (faculty or address changes, additions of approved electives, minor editing for clarity, and other minor updates) use the Program Update form, available at the Curriculum website.

Paste the latest approved version of your entire program in the left AND right boxes below. Make your deletions in the LEFT column by using the strikeout feature in Word or underlining, and highlight. Insert new language or other changes to the program on the RIGHT and highlight in **YELLOW** for easy identification. If possible, please align the two columns so that changes appear side-by-side with the original text.

SUMMARY OF CHANGES

Adding the new Principles of Sustainability (ESRM 205) as an optional choice to the Principles of Resource Management (ESRM 200) requirement for the major.

JUSTIFICATION

This program modification addresses a current bottleneck in the ESRM program by allowing either ESRM 200 OR ESRM 205 to be offered alternate semesters and provides more latitude for students with diverse interests in meeting the sophomore course requirement in the major. This course will allow provide unique service opportunities to the campus by utilizing the campus as a “live learn laboratory” for sustainable practice.

CURRENTLY APPROVED PROGRAM

PROPOSED PROGRAM

Environmental Science & Resource Management: Resource Management	Environmental Science & Resource Management: Resource Management
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Emphasis, B.S.

(120 units)

Lower Division Requirements - 37-39 units

- [BIOL 200 - Principles of Organismal and Population Biology](#) Units: 4
- [BIOL 201 - Principles of Cell and Molecular Biology](#) Units: 4
- [CHEM 121 - General Chemistry I](#) Units: 4
- [CHEM 122 - General Chemistry II](#) Units: 4
- [ECON 110 - Principles of Microeconomics](#) Units: 3
- [ECON 111 - Principles of Macroeconomics](#) Units: 3
- [ESRM 100 - Introduction to Environmental Science and Resource Management](#) Units: 3
- [ESRM 200 - Principles of Resource Management, Conservation and Stewardship](#) Units: 3

Select one of the following:

- [MATH 140 - Calculus for Business Applications](#) Units: 3
- [MATH 150 - Calculus I](#) Units: 4

Select one of the following:

- [GEOL 121 - Physical Geology](#) Units: 4
- [GEOL 122 - Historical Geology](#) Units: 3

Emphasis, B.S.

(120 units)

Lower Division Requirements - 37-39 units

- [BIOL 200 - Principles of Organismal and Population Biology](#) Units: 4
- [BIOL 201 - Principles of Cell and Molecular Biology](#) Units: 4
- [CHEM 121 - General Chemistry I](#) Units: 4
- [CHEM 122 - General Chemistry II](#) Units: 4
- [ECON 110 - Principles of Microeconomics](#) Units: 3
- [ECON 111 - Principles of Macroeconomics](#) Units: 3
- [ESRM 100 - Introduction to Environmental Science and Resource Management](#) Units: 3

Select one of the following:

- [ESRM 200 - Principles of Resource Management, Conservation and Stewardship](#) Units: 3

OR

- [ESRM 205 – Principles of Sustainability](#) Units: 3

Select one of the following:

- [MATH 140 - Calculus for Business Applications](#) Units: 3
- [MATH 150 - Calculus I](#) Units: 4

Select one of the following:

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- [BIOL 203 - Quantitative Methods for Biology](#) Units: 3
- [MATH 202 - Biostatistics \(Cross-listed as PSY 202\)](#) Units: 3
- [MATH 329 - Applied Statistics for Business and Economics](#) Units: 3

Upper Division Requirements - 27 units

All students must select an emphasis in Environmental Science or Resource Management and the associated coursework.

- [BIOL 433 - Ecology and the Environment](#) Units: 4
- [ECON 362 - Environmental Economics](#) Units: 3
- [ENGL 337 - Literature of the Environment](#) Units: 3
- [ESRM 313 - Conservation Biology \(Cross-listed as BIOL 313\)](#) Units: 4
- [ESRM 328 - Introduction to Geographic Information Systems](#) Units: 3
- [ESRM 329 - Environmental Law and Policy](#) Units: 3
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- [ESRM 341 - The National Park \(Cross-listed as POLS 341\)](#) Units: 3
- or
- [ESRM 342 - Environmental History \(Cross-listed as HIST 342\)](#) Units: 3
-
- [ESRM 491 - Capstone Preparation](#) Units: 1
-
- [ESRM 499 - Capstone](#) Units: 3

Emphasis in Resource Management - 16

- [GEOL 121 - Physical Geology](#) Units: 4
- [GEOL 122 - Historical Geology](#) Units: 3

Select one of the following:

- [BIOL 203 - Quantitative Methods for Biology](#) Units: 3
- [MATH 202 - Biostatistics \(Cross-listed as PSY 202\)](#) Units: 3
- [MATH 329 - Applied Statistics for Business and Economics](#) Units: 3

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- [BIOL 433 - Ecology and the Environment](#) Units: 4
- [ECON 362 - Environmental Economics](#) Units: 3
- [ENGL 337 - Literature of the Environment](#) Units: 3
- [ESRM 313 - Conservation Biology \(Cross-listed as BIOL 313\)](#) Units: 4
- [ESRM 328 - Introduction to Geographic Information Systems](#) Units: 3
- [ESRM 329 - Environmental Law and Policy](#) Units: 3

Select one of the following:

- [ESRM 341 - The National Park \(Cross-listed as POLS 341\)](#) Units: 3
- OR
- [ESRM 342 - Environmental History \(Cross-listed as HIST 342\)](#) Units: 3

units

Select three courses from the following:

- [ESRM 428 - Intermediate Geographic Information Systems](#) Units: 4
- [ESRM 462 - Coastal and Marine Resource Management](#) Units: 4
- [ESRM 463 - Water Resources Management](#) Units: 4
- [ESRM 464 - Land Use Planning and Open Space Management](#) Units: 4

Select a total of 4 units from the following courses:

- [BIOL 311 - Plant Biology](#) Units: 4
- [BIOL 450 - Ichthyology: The Biology of Fishes](#) Units: 4
- [BIOL 451 - Ornithology](#) Units: 4
- [ECON 480 - Topics in Environmental and Natural Resource Economics](#) Units: 3
- [ECON 488 - Econometrics](#) Units: 4
- [ENGL 482 - Technical and Business Writing](#) Units: 3
- [ENGL 483 - Technical Communication](#) Units: 3
- [ESRM 332 - Human Ecology \(Cross-listed as ANTH 332\)](#) Units: 3
- [ESRM 352 - Theory and Practice of Ecological Restoration](#) Units: 3
- [ESRM 410 - Environmental Impact Assessment](#) Units: 3
- [ESRM 428 - Intermediate Geographic Information Systems](#) Units: 4

- [ESRM 491 - Capstone Preparation](#) Units: 1

- [ESRM 499 - Capstone](#) Units: 3

Emphasis in Resource Management - 16 units

Select three courses from the following:

- [ESRM 428 - Intermediate Geographic Information Systems](#) Units: 4
- [ESRM 462 - Coastal and Marine Resource Management](#) Units: 4
- [ESRM 463 - Water Resources Management](#) Units: 4
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- [ENGL 482 - Technical and Business Writing](#) Units: 3
- [ENGL 483 - Technical Communication](#) Units: 3
- [ESRM 332 - Human Ecology \(Cross-listed as ANTH 332\)](#) Units: 3

- [ESRM 482 - Issues in Environmental Planning and Resource Management](#) **Units: 3**
- [ESRM 492 - Service Learning/Internship](#) **Units: 3**
- [ESRM 494 - Independent Research](#) **Units: 1-3**
- [MATH 430 - Research Design and Data Analysis](#) **Units: 3**
- [MGT 307 - Management of Organizations](#) **Units: 3**

Required Supporting and Other GE Courses 38-40 units

University Electives	14-16
American Institutions Requirement	6
Other GE Courses	18

- [ESRM 352 - Theory and Practice of Ecological Restoration](#) **Units: 3**
- [ESRM 410 - Environmental Impact Assessment](#) **Units: 3**
- [ESRM 428 - Intermediate Geographic Information Systems](#) **Units: 4**
- [ESRM 482 - Issues in Environmental Planning and Resource Management](#) **Units: 3**
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Don Rodriguez
Proposer of Program Modification

4/1/14
Date

APPROVAL SHEET

Program:

If your course has a General Education Component or involves Center affiliation, the Center will also sign off during the approval process.

Multiple Chair fields are available for cross-listed courses.

The CI program review process includes a report from the respective department/program on its progress toward accessibility requirement compliance. By signing below, I acknowledge the importance of incorporating accessibility in course design.

Program Chair		
	Signature	Date

Curriculum Chair		
	Signature	Date

AVP		
	Signature	Date