

MERRITT COLLEGE COURSE OUTLINE

COLLEGE:		STATE APPROVAL DATE:	08/11/2017
ORIGINATOR:	Ronald Felzer	STATE CONTROL NUMBER:	CCC000584 833
		BOARD OF TRUSTEES APPROVAL DATE:	12/13/2016
		CURRICULUM COMMITTEE APPROVAL DATE:	12/05/2016
		CURRENT EFFECTIVE DATE:	01/22/2018

DIVISION/DEPARTMENT:

1. REQUESTED CREDIT CLASSIFICATION:

Credit - Degree Applicable
Course is not a basic skills course.
Stand-alone

2. DEPT/COURSE NO:

BIOL 062S

3. COURSE TITLE:

Natural History of the Islands of California

4. COURSE: MC New Course

TOP NO. 0408.00

5. UNITS: 2.000

HRS/WK LEC: 2.00 Total: 35.00

HRS/WK LAB: 0.00 Total: 0.00

HRS/WK TBA:

6. NO. OF TIMES OFFERED AS SELETED TOPIC: AVERAGE ENROLLMENT:

7. JUSTIFICATION FOR COURSE:

Islands represent microcosms of our world at-large, and their discrete size make them manageable natural laboratories for studying the interplay between land area and isolation, and for projecting the future effects of fragmentation on our natural world. California has a wide variety of island ecosystems, from the large and remote Channel Islands to the near-shore, small islands in San Francisco Bay. The course fits the place-based curriculum of the Natural History Certificate and will be the first course at any Bay Area higher educational institution to specifically focus on local islands.

8. COURSE/CATALOG DESCRIPTION

Biogeography of California's islands: botany, zoology, and geology of the Channel Islands, Farallon Islands, and San Francisco Bay Islands.

9. OTHER CATALOG INFORMATION

a. Modular: No If yes, how many modules:

- b. Open entry/open exit: No
- c. Grading Policy: Both Letter Grade or Pass/No Pass
- d. Eligible for credit by Exam: No
- e. Repeatable according to state guidelines: No
- f. Required for degree/certificate (specify):
Natural History
- g. Meets GE/Transfer requirements (specify):
Meets CSU requirements
- h. C-ID Number: Expiration Date:
- i. Are there prerequisites/corequisites/recommended preparation for this course? No
- j. Acceptable for Credit: CSU/UC

- 10. LIST STUDENT PERFORMANCE OBJECTIVES (EXIT SKILLS):** (Objectives must define the exit skills required of students and include criteria identified in Items 12, 14, and 15 - critical thinking, essay writing, problem solving, written/verbal communications, computational skills, working with others, workplace needs, SCANS competencies, all aspects of the industry, etc.)(See SCANS/All Aspects of Industry Worksheet.)

Students will be able to:

1. Define the field of natural history and how it relates to both biology and science at-large.
2. Explain why islands are particularly useful ecosystems for studying the biological processes of evolution and ecology and how humans have affected and interacted with those processes.
3. Explain MacArthur and Wilson's Equilibrium Theory of Island Biogeography in layman's terms along with subsequent variations to the theory.
4. Compare and contrast the ecosystems of the Channel Islands, Farallon Islands, and SF Bay Islands, with specific reference to how the geography of the islands affects their biodiversity.
5. Conceive of a research study to test the theory of island biogeography (and its accompanying corollaries) using California's islands.
6. Write a short essay on the relevance of a specific California island to the life of a typical California resident, and why they should care about the future fate of that island.

- 11A. COURSE CONTENT:** List major topics to be covered. This section must be more than listing chapter headings from a textbook. Outline the course content, including essential topics, major subdivisions, and supporting details. It should include enough information so that a faculty member from any institution will have a clear understanding of the material taught in the course and the approximate length of time devoted to each. There should be congruence among the catalog description, lecture and/or lab content, student performance objectives, and the student learning outcomes. List percent of time spent on each topic; ensure percentages total 100%.

LECTURE CONTENT:

Introduction to Natural History: 5%

Island Biogeography Theory: 10%

Island Formation/Geology: 10%

- Island Plants: 10%
- Island Birds: 10%
- Island Reptiles and Amphibians: 5%
- Island Insects: 10%
- Island Mammals: 5%
- Island Marine Life: 5%
- Island Anthropology: 10%
- Island Conservation: 10%
- Island Land Use: 5%
- Connection to Arts/Humanities: 5%

11B. LAB CONTENT:

N/A

12. METHODS OF INSTRUCTION (List methods used to present course content.)

1. Field Experience
2. Activity
3. Lecture
4. Observation and Demonstration
5. Discussion
6. Projects
7. Critique
8. Field Trips
9. Multimedia Content

13. ASSIGNMENTS: 4.00 hours/week (List all assignments, including library assignments. Requires two (2) hours of independent work outside of class for each unit/weekly lecture hour. Outside assignments are not required for lab-only courses, although they can be given.)

Out-of-class Assignments:

Students will be required to do a capstone writing assignment on a California island of their choice. They will write a 2-3 page persuasive paper/letter to a typical California resident explaining the relevance of that island to the reader's life, drawing on historical and contemporary data pertaining to the island's biodiversity, conservation status, and cultural history.

ASSIGNMENTS ARE: (See definition of college level):
Primarily College Level

14. STUDENT ASSESSMENT: (Grades are based on):

ESSAY (Includes "blue book" exams and any written assignment of sufficient length and complexity to require students to select and organize ideas, to explain and support the ideas, and to demonstrate critical thinking skills.)

NON-COMPUTATIONAL PROBLEM SOLVING (Critical thinking should be demonstrated by solving unfamiliar problems via various strategies.)

SKILL DEMONSTRATION

15. TEXTS, READINGS, AND MATERIALS

A. Textbooks:

Schoenherr, Allan. *Natural History of the Islands of California*. First UC Press, 2003.

Rationale: This is the only book ever written on the natural history of these islands, but it is still up-to-date and comprehensive.

*Date is required: Transfer institutions require current publication date(s) within 5 years of outline addition/update.

B. Additional Resources:

Library/LRC Materials and Services:

The instructor, in consultation with a librarian, has reviewed the materials and services of the College Library/LRC in the subject areas related to the proposed new course

Are print materials adequate? No

Are nonprint materials adequate? Yes

Are electronic/online resources available? Yes

Are services adequate? Yes

Specific materials and/or services needed have been identified and discussed. Librarian comments:

C. Readings listed in A and B above are: (See definition of college level):

Primarily college level

16. DESIGNATE OCCUPATIONAL CODE:

E - Non-Occupational

17. LEVEL BELOW TRANSFER:

Y = Not Applicable

SUPPLEMENTAL PAGE

Use only if additional space is needed. (Type the item number which is to be continued, followed by "continued." Show the page number in the blank at the bottom of the page. If the item being continued is on page 2 of the outline, the first supplemental page will be "2a." If additional supplemental pages are required for page 2, they are to be numbered as 2b, 2c, etc.)

STUDENT LEARNING OUTCOMES

1. **Outcome:** Demonstrate a solid understanding of the definition and relevance of natural history to human society, with a specific focus on the relevance to California citizens.

This outcome maps to the following Institution Outcomes:

- Cultural Awareness - Through knowledge of history and cultural diversity, recognize and value perspectives and contributions that persons of diverse backgrounds bring to multicultural settings and respond constructively to issues that arise out of human diversity on both the local and the global level.

Assessment: Students will be asked to define and elaborate on the utility of natural history in exams and in-class assignments.

2. **Outcome:** Explain the uniqueness of island ecosystems, and how the geographic features of islands affect the biodiversity that lives and evolves on them.

This outcome maps to the following Institution Outcomes:

- Critical Thinking - Think critically using appropriate methods of reasoning to evaluate ideas and identify and investigate problems and to develop creative and practical solutions to issues that arise in workplaces, institutions, and local and global communities.
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Assessment: Answer questions requiring an explanation of the equilibrium theory of island biogeography on exams and on in-class assignments.

3. **Outcome:** Describe, compare, and contrast the ecosystems of the Farallon, Channel, and San Francisco Bay Islands, and how their differences can (or cannot) be explained by island biogeography theory.

This outcome maps to the following Institution Outcomes:

- Critical Thinking - Think critically using appropriate methods of reasoning to evaluate ideas and identify and investigate problems and to develop creative and practical solutions to issues that arise in workplaces, institutions, and local and global communities.

Assessment: Field-trip assignments requiring a comparison of the three island archipelagoes.

4. **Outcome:** Articulate the importance and vulnerability of California's islands to the California citizenry.

This outcome maps to the following Institution Outcomes:

- Communication - Communicate with clarity and precision using oral, nonverbal, and/or written language, expressing an awareness of audience, situation, and purpose.

Assessment: Write a compelling, concise essay designed for a California reader to explain the relevance of one California island to that reader's life.

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