

All Fields Report

Basic Course Information

College	Cañada College
Discipline	BIOL-Biology
Course Number	381
Full Course Title	Travel Study in Biology
Catalog Course Description	Students travel under the supervision of an experienced biologist. They apply the knowledge gained through the preliminary course and other biology courses to the exploration of sites with ecological and evolutionary significance. Concepts of biodiversity, adaptation, and webs of life are experienced first-hand.

Proposal Information

Proposed Start	Year: 2022 Semester: Fall
Proposed Curriculum Committee Meeting Date:	03/25/2022
Deadline for submission to Dean's Queue:	02/17/2022
Deadline for submission of curriculum proposal to the Technical Review Committee:	03/01/2022
Proposal Origination Date:	02/04/2022
Justification For Board Report OR Curriculum Inventory update:	<p>1. For NEW Courses: Provide a brief justification statement describing the need for the course, its place in the curriculum, and pertinent information such as the role of advisory committees. New courses require approval of the SMCCCD Board of Trustees. The justification statement will be included on the annual Curricular Board report. Use complete sentences and present tense.</p> <p>2. For all types of Course MODIFICATIONS (modifications, banking, deletions and reactivations): Provide a brief justification statement describing the need for the change. The justification statement will be used for course updates in the State Curriculum Inventory as necessary. Use complete sentences and present tense.</p> <p>Our faculty do not currently foresee leading a travel-abroad study course in the near future. We will reactivate the course when needed.</p>
Honors Course	Yes
Open Entry/Open Exit	No 0

Equivalent Courses

Will this course replace an existing course in the catalog, or an experimental course?	No
If yes, identify and explain.	

Similar Courses

Is there a similar or equivalent course in	No
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SMCCCD?	
Added Similar Courses	

Units/Hours				
Unit Types	Fixed			
Units	Min: 1.50			
Variable Range	Range (or)			
Hours				
Please enter hours as per term values				
Method	Min Hours	Max Hours	Min Faculty Load	Min Units
Lecture	0.00	0.00	0.00	0.00
Lab	72.00	81.00	3.15	1.50
TBA	0.00	0.00	0.00	0.00
Work Experience	0.00	0.00	0.00	0.00
Field Experience	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00
Homework	0.00	0.00	0.00	0.00
Other Hours				
Course Details				
Repeatable for Credit	No			
Grading Methods	Grade Option (Letter Grade or Pass/No Pass)			
Audit	Yes			

Materials Fee	
Fee Required?	No

Student Learning Outcomes
Upon successful completion of this course, a student will meet the following outcomes:
1. Recognize biotic and abiotic characteristics that define ecosystems.
2. Explain the evolutionary concepts that are illustrated by the flora and fauna of the region.
3. Formulate questions about evolution, ecology, or conservation biology based on their observations during the trip.
4. Compare ecosystems from direct observations and propose solutions to preserve these ecosystems, using concepts of ecology and conservation biology.

Course Objectives
Upon successful completion of this course, a student will be able to:
1. Identify distinct ecosystems based on observation of flora, fauna, and geological features.
2. Analyze impact of human populations on the ecosystems of this area.
3. Formulate questions about evolution, ecology, or conservation biology based on their observations during the trip.
4. Propose solutions to preserve these ecosystems, using concepts of ecology and conservation biology as well as observations of local human populations.

Course Lecture Content

Course Lab Content

1. How to take biological field notes
2. Ecosystems of the sites visited.
 1. Place visits to sites with various ecosystems. ex. upland forest, montane, chaparral, tropical jungle, marine
3. Biodiversity, its importance to ecosystems
 1. measures of biodiversity
 2. observations of flora and fauna of various sites visited.
 3. adaptations of organisms to their environment
 4. relationships of organisms within communities
4. Conservation biology
 1. What is a successful nature preserve?
 2. Factors important in creating nature preserves
5. Human impact on ecosystems
 1. observations and analysis of human activities on selected ecosystems
 2. interviews with local inhabitants about attitude and impact of nature preserves.
 3. analysis of possible solutions for preserves and human societies

TBA Hours Content

Honors Content

This course may be offered at an honors level. While the class content remains the same and students can expect to achieve the same student learning outcomes, the student's experience in an honors section may be significantly different in the following ways:

1. Topics covered with greater breadth and depth than non-honors, lower division course work;
2. Research expectations are beyond non-honors course assignments;
3. Extensive reliance on primary source documents and more advance research methodology is required;
4. Greater critical thinking and extended analysis than in non-honors course work; and,
5. Creative projects and/or documentation beyond non-honors course requirements

The specific details about how honors-level work is implemented in this course are included in the Honors Course Addendum

Honors Addendum

Course/Courses that this course would link to:

Linked Course

BIOL 225
BIOL 380

<p>1. Expectation for greater degree of student participation and involvement.</p>	<p>a) Presentation (15 minutes) to entire class on specific topic related to trip destination. Serve as the "class expert" on that topic.</p> <p>b) Proposal for original research to be completed (bibliography, biological background (requiring extensive literature search) hypothesis, proposed methodology and data analysis) (10 to 13 pages)</p>
<p>2. Student work evaluated with higher standards of performance expectation.</p>	<p>a) Journal entries showing techniques of taking field notes; quality of observations and analytical comments</p>
<p>3. More independent reading. Describe how independent reading is determined and assessed:</p>	<p>a) More reading assignments related to en route presentation (primary sources and additional text); Assessed through presentation and discussions (seminar style)</p> <p>b) Additional readings related to research proposal, consisting of reviews and original research reports</p> <p>c) Boersma, P. Patterns of Evolution in Galapagos Organisms. Pacific Division, AAAS. San Francisco, CA. 1983. Rauch, N. "Competition of Marine Iguana Females for Egg-Laying Sites"; Behavior Vol 107 (1-2) 1988; pgs. 91 - 104.</p>
<p>4. More opportunities for writing.</p>	<p>a) Proposal for original research to be completed (bibliography, biological background (requiring extensive literature search) hypothesis, proposed methodology and data analysis</p> <p>b) Journal writing</p>
<p>5. Course approach requires more critical thinking.</p>	<p>a) Journal writing that involves interpretation of observations.</p> <p>b) Research proposal involves analysis of original research reports, formulating questions, creating experimental design to answer those questions.</p>
<p>6. Students expected to use primary sources to a greater extent.</p>	<p>a) Biology journal articles using JSTOR</p>
<p>7. Greater depth and/or breadth of subject matter presented.</p>	<p>a) Students will work independently to read about the topic of their presentation, in order to become the "class expert" on that topic. Teaching a topic requires 5-10 fold more knowledge of a topic than what is being taught.</p>
<p>8. More opportunities for research and/or publication.</p>	<p>a) Students will complete proposal for original research (bibliography, biological background (requiring extensive literature search) hypothesis, proposed methodology and data analysis. Actual research experiments will not be done en route.</p>
<p>9. Explain expected citations.</p>	<p>a) Original research reports from journals such as Evolution, Theoretical and Applied Genetics, Nature, Science</p>
<p>10. More opportunities to pursue topics/projects of individual interest.</p>	<p>a) Students will be able to experience a different place with unique biological features, and take the perspective of a biologist planning a research project of their choice in that</p>

	location.
11. Course is interdisciplinary in design.	a) Travel involves experiencing a different culture as well as unique ecosystems and organisms. Discussions will include impacts of human culture on ecosystems.
12. Greater flexibility in format and teaching methodologies.	a) A study tour must be flexible by nature, in order to take advantage of opportunities that occur, planned or unplanned. Extended time together allows more discussion among students and professor. b) Student presentations are a way of creating respect for everyone's contributions to the overall trip.
13. Selected field trips, guest speakers, and opportunities to attend related cultural and social events are offered..	a) Travel. Guest speakers, including local experts. Opportunity to attend cultural and social events that they would not normally be able to.

Frequently Recommended Preparation	
Frequently Recommended	
Justification for Frequently Recommended Preparation	
Why is the knowledge of the recommended course(s), skill(s) or information necessary for students to succeed in the "target" course? Specify the relationship between the recommended knowledge and skills required of students and those taught in the "target course? (Please list the specific proficiencies students must possess in order to succeed in the "target" course.)	
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Other Recommended Preparation	
<i>You have no defined requisites.</i>	

Prerequisites/Corequisites		
Drag and Drop to Reorder		
Edit/Delete	Requisites	Analysis
	Prerequisite BIOL 380	

Content Review
BIOL 380 - Prerequisite (Objective to Objective) <i>*Historical*</i>

Mode of Delivery
Modes of Delivery
Lab

Representative Instructional Methods

Methods	Activity Discussion Field Trips Observation and Demonstration
Other Methods	

Representative Assignments

Writing Assignments

(List all assignments, including library assignments. Outside assignments are not required for lab-only courses, although they can be given.)

1. Journal writing (reflective, integrates what they are learning, exhibits critical thinking and application of biological concepts through recording personal observations and commentary, natural history and cultural observations, investigative questions, data, analysis of data, and conclusions obtained during the field trip). Approximately 1 to 2 pages daily for the trip duration.
2. Essay (3-4 pages) analyzing the impact of various aspects of the trip on their knowledge and understanding of biology.

Reading Assignments

(List all assignments, including library assignments. Outside assignments are not required for lab-only courses, although they can be given.)

1. Textbook reading, approximately 50 pages, once per term
2. Related articles, approx 15 pages total, once per term

Other Outside Assignments

(List all assignments, including library assignments. Outside assignments are not required for lab-only courses, although they can be given.)

- None

To be Arranged Assignments

(List all assignments, including library assignments. Outside assignments are not required for lab-only courses, although they can be given.)

- Not applicable

Representative Methods of Evaluation

This section defines the ways students will demonstrate that they have met the student learning outcomes.

Student grades will be based on multiple measures of student performance. Instructors will develop appropriate classroom assessment methods and procedures for calculating student grades, including the final semester grade. The following list displays typical assessment methods appropriate for this course. The actual assessment methods used in a particular classroom and section will be listed in the instructor's syllabus.

Methods must effectively evaluate critical thinking. Credit courses must include written communication, problem solving, and/or skills demonstrations.

Multiple measures may include, but are not limited to, the following:

Methods	<ul style="list-style-type: none"> • Class Participation • Homework • Journal: apply vocabulary of biology to experiences and observations; demonstrate skill in taking field notes. Participation in activities (apply biological knowledge to the activity) including questions asked that demonstrate an understanding of ecological and evolutionary concepts. Essay (3-4 pages) analyzing the impact of various aspects of the trip on their knowledge and understanding of biology.
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Representative Texts

Textbooks such as the following are appropriate:

Formatting Style MLA

Textbooks	1. Bridgewater, Samuel. <i>A Natural History of Belize: Inside the Maya Forest</i> , ed. University of Texas, 2012
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Manuals	<i>You have no manuals defined.</i>
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Periodicals	<i>You have no periodicals defined.</i>
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Software	<i>You have no software defined.</i>
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Other	1. Michael Emch. The Human Ecology of Mayan Cacao Farming in Belize. <i>Human Ecology</i> , March 2003, Volume 31, Issue 1, pp 111-131
	2. Darwin, Charles. <i>On The Origin of Species</i> . Ed. Gramercy. 1859
	3. Weiner, Jonathan. <i>The Beak of the Finch</i> , . NY. Random House., 1995.

Degree/Certificate Applicability

Designation	Degree Credit
Proposed For	AA/AS Degree
Course Designation Text	Are there degrees/certificates to which this course applies? None

General Education/Degree/Transfer Course

CSU Transfer Course

Transfers to CSU Approved

Resources Needed

Adequate Library Resources	Consultation with the Coordinator of Library Services regarding the adequacy of campus and online information resources to fulfill course objectives is required prior to course approval. Inadequate to support the course Please Specify: Notified library faculty.
Affected Resources	Which of the following resources do you expect to be affected by the offering of this class? Check as many as appropriate.
	Library

Explain what effect the areas you have checked will have upon this college:

Books and resources should be made available to students about the place that will be traveled to. Also, students may need help with their research papers (those taking this for honors credit).

Comparable Transfer Course Information

Are there comparable courses?	Yes
Edit/Del	College Info
	Glendale Community College
	Natural History Field Studies BIOL 131

Minimum Qualification

No Minimum Qualifications For this Course

CB Codes

CB03 TOP Code	0401.00 - Biology, General
CB04 Course Credit Status	D - Credit - Degree Applicable
CB05 Course Transfer Status	B = Transferable to CSU only
CB08 Course Basic Skill Status (PBS Status)	2N = Course is not a basic skills course.
CB09 SAM Code	E - Non-Occupational
CB11 California	Y - Credit Course

Classification Codes	
CB21 Levels Below Transfer	Y = Not Applicable
CB23 Funding Agency Category	Y = Not Applicable
CB25 Course General Education Status	Y - Not Applicable
CB26 Course Support Course Status	N - Course is not a support course

Codes/Dates	
Entry of Special Dates	
Instruction Office Review	
Last Outline Revision	
Content Review	
CC Approval	03/25/2022
DE Approval	
Effective Term	Term: Fall Year: 2022
Web Catalog	
Course Family	
Web Catalog	<input type="checkbox"/> Exclude from Web Catalog
Instructional Services	
Implementation Date	
Originator	Douglas Hirzel
Origination Date	02/04/2022
Proposal Type	Cañada Course Banking
Parent Course	BIOL 381 Travel Study in Biology Active (9188)
C-ID Numbers	
CB00 State ID	CCC000608225
CB03 TOP Code	0401.00 - Biology, General
CB04 Course Credit Status	D - Credit - Degree Applicable
CB05 Course Transfer Status	B = Transferable to CSU only
CB08 Course Basic Skill Status (PBS Status)	2N = Course is not a basic skills course.
CB09 SAM Code	E - Non-Occupational
CB10 Course COOP Work Exp-ED	N = Not part of Coop Work Exp
CB11 California Classification Codes	Y - Credit Course
CB13-Special Class Status	N - Not Special
CB21 Levels Below Transfer	Y = Not Applicable
CB22 Non Credit Course Category	Y - Not Applicable

CB23 Funding Agency Category	Y = Not Applicable
CB24-Program Course Status	2 = Stand-alone
CB25 Course General Education Status	Y - Not Applicable
CB26 Course Support Course Status	N - Course is not a support course

Web Catalog Metadata