All Fields Report

Basic Course Information	
College	Cañada College
Discipline	BIOL-Biology
Course Number	380
Full Course Title	Travel Study in Biology - Preparing for the Trip
Catalog Course Description	This course prepares students for a travel experience focused on biological concepts, including evolution, as shown by ecosystems and adaptations of organisms. Coursework may include case studies, videos, guest lectures, and museum visits. The course gives context to the trip experience so that students better understand what they are seeing, and are able to observe and analyze the environment as a biologist would.
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:	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. 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. Our faculty do not currently foresee doing a travel-abroad course. We will reactivate this course when needed.
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	No

equivalent course in SMCCCD?	
Added Similar Courses	

Units/Hours

Unit Types	Fixed
Units	Min: 1.00
Variable Range	Range (or)

Hours

Please enter hours as per term values

Method	Min Hours	Max Hours	Min Faculty Load	Min Units
Lecture	16.00	18.00	10.00	1.00
Lab	0.00	0.00	0.00	0.00
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	32.00	36.00	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. Explain the geologic history of the area and the influence of abiotic factors on adaptations of organisms and current ecosystems.
2. Discuss how principles of evolutionary theory are demonstrated in the organisms of the trip destination.
3. identify essential questions to plan a successful conservation strategy for the ecosystems of the trip destination.

Course Objectives

Upon successful completion of this course, a student will be able to:

1. Describe the geologic history and current status of the study area.
2. Explain how local abiotic factors influence current ecosystems.
3. Describe adaptations of local organisms and how these adaptations make them fit in their ecosystems.
4. Discuss the significance of the trip destination to Darwin's ideas of evolution and to current studies on evolution.
5. Interpret data from biological studies, using key concepts of ecology or evolution.

Course Lecture Content

1. All topics below are examined with respect to the trip destination.
2. geology
    1. history
    2. effect of abiotic factors on ecosystems
    3. effect of abiotic factors on evolution of organisms
3. ecosystems
    1. biodiverstiy
    2. stability
    3. climate change impacts
4. organisms
    1. adaptations
    2. coevolution
    3. speciation, adaptive radiation
5. conservation biology
    1. principals of nature preserves
    2. corridors
    3. resource management
    4. human impacts
    5. ecotourism

Course Lab Content

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	
1. Expectation for greater degree of student participation and involvement.	a) primary role in groups working on case studies b) identify and view public lecture on topic related to study trip
2. Student work evaluated with higher standards of performance expectation.	a) participation in class discussion - 10% b) topic of research proposal - see 4a below. 20%
3. More independent reading. Describe how independent reading is determined and assessed:	a) original research reports and other journal readings related to their own research proposal. b) additional books, possibly including Darwin's Journals of Research or Voyage of the Beagle.
4.More opportunities for writing.	a) Initial components of research proposal: identification of question to be investigated, review of previous research pertinent to this question, draft of methodology (approximate length of 10 pages, including full literature review of current research on their topic) b) Additional book or film review c) summary and critique of public lecture on related topic
5. Course approach requires more critical thinking.	a) Honors students will need to investigate Galapagos flora and fauna, identify a question related to the evolution of a particular species or group of species, and propose a research project to answer that question. 10-12 page proposal, b) summary and critique of public lecture on related topic
6. Students expected to use primary sources to a greater extent.	a) Journals such as Journal of Evolution, Genetics, J. Ecology b) Darwin's writings: Journals of Researches, The Voyage of the Beagle, On the Origin of Species c) Research proposals and summaries in public records (ex. NSF)
7. Greater depth and/or breadth of subject matter presented.	a) Design of a research project will require students to investigate current ideas on evolution and/or ecology of particular species endemic to the travel destination. They must learn how ecological principles apply to the possible evolutionary path of these species.
8. More opportunities for research and/or publication.	a) Creation of a research proposal, including investigation of current knowledge on the topic and creating question(s) to be answered. Actual research will not be done, but the preparatory steps will be a major assignment for Honors students.

	b) Participation in Cañada's Student Research Conference and/or the Bay Honors Consortium, a state-wide research opportunity, both offered every spring semester.
9. Explain expected citations.	a) Darwin's writings, b) original research reports from peer-reviewed journals c) NSF research project proposals, dissertation abstracts
10. More opportunities to pursue topics/projects of individual interest.	a) Students can choose to investigate any species or group of organisms currently or previously present at the trip destination, and they can determine what aspect of evolutionary theory to investigate with this organism.
11. Course is interdisciplinary in design.	a) Evolution and ecology are interconnected with many other disciplines: anthropology, environmentalism, genetics, education, and sociology. One example is the reactionin in 1859 to Darwin's ideas on evolution and reaction in the present. Conservation biology involves developing solutions that include principles of biology, ecology, economics, and sociology.
12. Greater flexibility in format and teaching methodologies.	a) Fieldtrips to museums b) More discussion, case study with data, less lecture.
13. Selected field trips, guest speakers, and opportunities to attend related cultural and social events are offered..	a) students will go on field trips to museum(s), a guest speaker with a specialty on the trip's location will be interviewed by the students. b) Public lectures (SRI, Stanford, Academy of Sciences, other institutions) can be attended and critiqued.

Frequently Recommended Preparation

Frequently Recommended	Eligibility for ENGL 100. **Writing** 1. Use complex sentences as well as correct punctuation and mechanical conventions. 2. Demonstrate basic knowledge of essay requirements. **Reading** 1. Read material at the 11th grade level applying literal and inferential comprehension skills. 2. Determine word meanings of vocabulary used in material at this level. Eligibility for MATH 110.

	1. Use the whole number system and perform arithmetic computations. 2. Perform division, multiplication, addition and subtraction of fractions. 3. Solve problems involving ratio, proportion, and percent.

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.)

Readings will require familiarity with vocabulary, including scientific terms. Students needs to be eligible for ENGL 100 in order to completed the required writing assignments successfully. Analysis of ecological cases will include math calculations at level of recommended Math preparation.

Other Recommended Preparation

You have no defined requisites.

Prerequisites/Corequisites

Drag and Drop to Reorder

Edit/Delete	Requisites	Analysis
	Prerequisite BIOL 100 or	
	Prerequisite BIOL 110 or equivalent	

Content Review

BIOL 100 - Prerequisite
(Objective to Objective)
Historical

BIOL 110 - Prerequisite
(Objective to Objective)
Historical

Mode of Delivery

Modes of Delivery
Lecture

Representative Instructional Methods

Methods	Lecture Activity Discussion

	Field Trips Guest Speakers
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. essay, 3 pages, once per term, on ecological role of specific species in destination's ecosystem(s)

2. quick writes, 2 times per term, 1 page each, on video, guest lecture, or discussion topic

3. problem set involving application of evolutionary and/or ecological concepts (2 to 3 paragraphs, once per term)

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

1. text book 50 pgs, once per term

2. review articles 15 pg, twice per term

3. analysis articles 15 pg, twice 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.)

1. Museum visit (tied into a writing assignment)

2. Book or film review, 2 pages

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	• Class Participation • Class Work • Exams/Tests • Oral Presentation • Quizzes • Book or film review (2-3 pages),museum worksheet, problem sets, case studies using data that require critical thinking to interpret.

Representative Texts

Textbooks such as the following are appropriate:

Formatting Style	MLA

Textbooks

	1. Weiner, Jonathan. *The Beak of the Finch*, ed. Vintage Books/Random House, 1995
	2. Dourson, Daniel C. *Biodiversity of the Maya Mountains: A Focus on the Bladen Nature Reserve*, ed. Goatslug publications, 2014

Manuals

You have no manuals defined.

Periodicals

You have no periodicals defined.

Software

You have no software defined.

Other

	1. Culture and Customs of Ecuador 2000 176 pages Greenwood Press ISBN 0313302448
	2. The Galápagos: Exploring Darwin's Tapestry University of Missouri Press 2009 224 pages ISBN 0826218377
	3. The Origin of Species by Charles Darwin Date of publication: 1859. 459 pages Gramercy publications ISBN 0517123207

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

Page Last Saved on Friday, Feb 4, 2022 at 4:09 PM
By Douglas Hirzel

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. Adequate 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 on the trip destination should be made available to students.

Comparable Transfer Course Information

Are there comparable courses?	Yes
Edit/Del	**College Info**
	Glendale Community College Natural History Field Study 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	☐ Exclude from Web Catalog

Instructional Services

Implementation Date	

Originator	Douglas Hirzel
Origination Date	02/04/2022
Proposal Type	Cañada Course Banking
Parent Course	BIOL 380 Travel Study in Biology - Preparing for the Trip Active (9187)
C-ID Numbers	
CB00 State ID	CCC000608224
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