

BIOL 417/517 Field Ecology: Costa Rica**3 Credit hours**

Instructor: Dr. Jacob Kerby, 171C CL, 677-6170, Jacob.Kerby@usd.edu

Teaching Assistant: TBD

Office Hours: By appointment

Course Description: This course emphasizes the development of hypotheses and implementation of ecological studies in a variety of aquatic and terrestrial systems. Practical experience with sampling methodology will be obtained during a major field trip. Data analysis, presentation and discussion skills will also be important components of the course.

Prerequisites: BIOL 151/153 or equivalent

Text/ reading assignments: Readings from various texts and the primary literature will be assigned as appropriate. Required Texts for the trip TBA.

Course Webpage: Enrollment in the D2L site for BIOL 417/517 is required. Materials for the course, class announcements, and additional information will be on this site.

Course objectives: By the end of the course, you should be able to:

- Understand the basic physical and ecological forces structuring biotic communities in the study area.
- Develop skills related to designing and implementing ecological field studies in freshwater and terrestrial habitats.
- Have an understanding of the techniques used to sample natural communities and assess organismal responses to altitude.
- Identify a wide variety of organisms including birds, rodents, plants, and invertebrates.

COURSE POLICIES AND PROCEDURES**Course Expectations**

Attendance: You are expected to attend all indicated lectures and lab classes. Your inputs into class and lab discussions are important.

Punctuality: Please be on time. If you have to be late to a class, take extra effort to come in quietly so as to minimize the distraction. Repeated late arrival will adversely impact your course grade.

Class participation. You will be expected to actively participate in class. We will meet daily to discuss concepts related to the tropics and to field biology. This requires that you be familiar with material covered, complete reading assignments prior to class, and review lecture notes periodically. Active participation in the classroom and field trips are essential. Please ask questions about course material and/or reading assignments.

Field trip: We will be taking several day trips to the surrounding jungle at the La Selva Biological Station. Details will be presented in class.

Reading: Readings may include excerpts from texts, primary journal articles and review articles taken from the current literature.

Exams: There will be no exam in this course, the bulk of your grade will be tied to your project.

Field Safety and Preparedness: Students are expected dress appropriately for field trip including appropriate footwear, hats and raingear. A full list of appropriate items to bring will be provided ahead of time. Students must obey safety instructions by teaching staff at all times.

Graduate credit (BIOL 517): Graduate student projects will be held to a higher standard and require a higher level of research design and statistical analysis. Students will also be required to present a 60 min lecture on a topic in the course.

Calculation of course grade: Your grade depends only on how well you do in the class and lab.

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Project: 80 % (30% design, 30% implementation, 20% analysis/presentation)

Participation: 20 %

90-100% is an A, 80-89% a B, 70-79% a C, 60-69% a D, and below that an F.

Freedom in learning: Students are responsible for learning the content of any course of study in which they are enrolled. Under Board of Regents and University policy, student academic performance shall be evaluated solely on an academic basis and students should be free to take reasoned exception to the data or views offered in any course of study. Students who believe that an academic evaluation is unrelated to academic standards but is related instead to judgment of their personal opinion or conduct should contact the dean of the college which offers the class to initiate a review of the evaluation.

Course Content: Material in this course deals with the ecology and evolution of organisms, and is presented from a scientific perspective. Assignments in this course evaluate student knowledge from a scientific perspective.

Accommodations for students with disabilities: Any student who feels s/he may need academic accommodations or access accommodations based on the impact of a documented disability should contact and register with Disability Services during the first week of class. Disability Services is the official office to assist students through the process of disability verification and coordination of appropriate and reasonable accommodations. Students currently registered with Disability Services must obtain a new accommodation memo each semester. For information contact:

Ernetta L. Fox, Director

Disability Services
Room 119 Service Center
(605) 677-6389
www.usd.edu/ds; dservices@usd.edu.

Other University Student Support services:

Academic Advising Center for general academic assistance: 20 Arts and Sciences Building
<http://www.usd.edu/advising/>

Writing Center Dakota Hall 201 <http://www.usd.edu/engl/writingcenter.cfm>

Academic Misconduct. Academic misconduct, including, but not limited to cheating and plagiarism, will not be tolerated and will be dealt with in accordance with university regulations and procedures.

Official College policy: Because the entire educational process rests upon an atmosphere of academic honesty and trust, the College community must promote and protect the sanctity of such an environment at the University. To that end, the College of Arts and Sciences considers the following infractions as being inimical to the objectives of higher education: Cheating is defined as intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise (Student Conduct Code). Plagiarism is defined as intentionally or knowingly representing the words or ideas of another as one's own in any academic exercise (Student Conduct Code). In the event that cheating or plagiarism occurs, a letter will be sent to the Vice President for Academic Affairs and the Dean of the student's respective program notifying them of the offense. At the discretion of the instructor, a student caught cheating or plagiarizing may be:

- a. Given a zero for that assignment.
- b. Allowed to rewrite and resubmit the assignment for credit.
- c. Assigned a reduced grade for the course.
- d. Dropped from the course.
- e. Failed in the course.

Course Schedule – BIOL 417/517 – Summer 2019

Day	Theme	Contact Hours	Date
1	Costa Rica Introduction	2 hours lecture	May 8
2	La Selva Introduction	3 hours lecture 3 hours tour	May 9
3	Field Survey Methods	3 hours lecture 3 hours tour	May 10
4	Estimating Abundance	3 hours lecture 4 hours PD	May 11
5	Measuring Behavior	3 hours lecture 4 hours PD	May 12
6	Basic Statistics	3 hours lecture 4 hours PD	May 13
7	Data Analysis in R	3 hours lecture 4 hours PD	May 14
8	Giving public presentations	3 hours lecture 4 hours PD	May 15
9	Coastal Ecology	2 hours lecture 2 hours tour	May 16
10	Presentations	2 hours presentation	May 17
11	Return to US		May 18

Changes to the above schedule will be announced in class and/or in D2L

Lecture hours- 21

Field trip hours- 8 (/2= 4)

Project development (PD) hours- 20

Presentations- 2 hours

Total contact hours: 47