| **Syllabus for Natural History – Eureka Campus** | | |
| --- | --- | --- |
| **Semester & Year** | Fall 2017 | |
| **Course ID and Section #** | BIOL 20 E3108 | |
| **Instructor’s Name** | Karen Reiss | |
| **Day/Time** | MW Lecture 11:40-1:05, F Lab 11:40-2:50 | |
| **Location** | Lecture SCI 206, Lab SCI 102 | |
| **Number of Credits/Units** | 4 | |
| **Contact Information** | *Office location* | SCI 216B |
| *Office hours* | M 10-11am; W 1:30-2:30PM |
| *Phone number* | 707-476-4220 (X4220) |
| *Email address* | karen-reiss@redwoods.edu |
| **Primary Textbook** | *Title & Edition* | The California Naturalist Handbook |
| *Author* | Nevers et al. |
| *ISBN* | 9780520274808 |
| **Course Description**  An introduction for non-science majors to the biotic communities of California and the identification, ecology and life history of the organisms living there. Coverage includes principles of ecology and evolution, techniques for studying organisms in the wild, and methods of recording field data. | | |
| **Student Learning Outcomes**   1. Describe the defining cellular characteristics and life history patterns of prokaryotic and eukaryotic organisms commonly encountered in the field. 2. Hypothesize ecological and evolutionary mechanisms that are responsible for specific examples of organismal adaptation and lineage diversification. 3. Recognize the major biotic communities of California, and analyze the biotic and abiotic factors responsible for the unique characteristics of each. 4. Name and classify plants, animals, fungi and macroalgae on sight and/or by using appropriate and available resources. 5. Keep an organized field/lab notebook that includes meaningful and accurate notes and data. | | |
| **Special Accommodations**  College of the Redwoods complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodation request at least one week before the first test so that necessary arrangements can be made. No last-minute arrangements or post-test adjustments will be made. If you have a disability or believe you might benefit from disability related services and may need accommodations, please see me or contact [Disabled Students Programs and Services](http://www.redwoods.edu/dsps). Students may make requests for alternative media by contacting DSPS at 707-476-4280. | | |
| **Academic Support**  Academic support is available at [Counseling and Advising](http://www.redwoods.edu/counseling/) and includes academic advising and educational planning, [Academic Support Center](http://www.redwoods.edu/asc) for tutoring and proctored tests, and [Extended Opportunity Programs & Services](http://www.redwoods.edu/eops), for eligible students, with advising, assistance, tutoring, and more. | | |
| **Academic Honesty**  In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic dishonesty, determination of the grade and of the student’s status in the course is left primarily to the discretion of the faculty member. In such cases, where the instructor determines that a student has demonstrated academic dishonesty, the student may receive a failing grade for the assignment and/or exam and may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website at: <http://www.redwoods.edu/board/Board-Policies/Chapter-5-Student-Services>, and scroll to AP 5500. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the college catalog and on the College of the Redwoods website. | | |
| **Disruptive Classroom Behavior**  Student behavior or speech that disrupts the instructional setting will not be tolerated. Disruptive conduct may include, but is not limited to: unwarranted interruptions; failure to adhere to instructor’s directions; vulgar or obscene language; slurs or other forms of intimidation; and physically or verbally abusive behavior. In such cases where the instructor determines that a student has disrupted the educational process a disruptive student may be temporarily removed from class. In addition, he or she may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website at: <http://www.redwoods.edu/board/Board-Policies/Chapter-5-Student-Services> and scroll to AP 5500.  Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the college catalog and on the College of the Redwoods website. | | |
| **Emergency Procedures for the Eureka campus:**  Please review the campus evacuation sites, including the closest site to this classroom (posted by the exit of each room). The Eureka campus emergency map is available at: (<http://www.redwoods.edu/aboutcr/Eureka-Map>; choose the evacuation map option).  For more information on Public Safety, go to <http://www.redwoods.edu/publicsafety>. In an emergency that requires an evacuation of the building:   * Be aware of all marked exits from your area and building. * Once outside, move to the nearest evacuation point outside your building: * Keep streets and walkways clear for emergency vehicles and personnel. * Do not leave campus, unless it has been deemed safe by the Incident Commander or campus authorities. (CR’s lower parking lot and Tompkins Hill Rd are within the Tsunami Zone.)   RAVE – College of the Redwoods has implemented an emergency alert system. In the event of an emergency on campus you can receive an alert through your personal email and/or phones at your home, office, and cell. Registration is necessary in order to receive emergency alerts. Please go to [https://www.GetRave.com/login/Redwoods](https://www.getrave.com/login/Redwoods" \t "_blank) and use the “Register” button on the top right portion of the registration page to create an account. During the registration process you can elect to add additional information, such as office phone, home phone, cell phone, and personal email.  Please use your CR email address as your primary Registration Email. Your CR email address ends with “redwoods.edu.” Please contact Public Safety at 707-476-4112 or [security@redwoods.edu](mailto:security@redwoods.edu" \t "_blank) if you have any questions.  *College of the Redwoods is committed to equal opportunity in employment, admission to the college, and in the conduct of all of its programs and activities.* | | |

**Biology 20 – Natural History Course Syllabus**

**Course Learning Outcomes**

1. Describe the defining cellular characteristics and life history patterns of prokaryotic and eukaryotic organisms commonly encountered in the field.
2. Hypothesize ecological and evolutionary mechanisms that are responsible for specific examples of organismal adaptation and lineage diversification.
3. Recognize the major biotic communities of California, and analyze the biotic and abiotic factors responsible for the unique characteristics of each.
4. Name and classify plants, animals, fungi and macroalgae on sight and/or by using appropriate and available resources.
5. Keep an organized field/lab notebook that includes meaningful and accurate notes and data.

**Instructor**

Dr. Karen Reiss SC216B

[karen-reiss@redwoods.edu](mailto:karen-reiss@redwoods.edu)

tel. 476-4220

office hours M 10-11AM; W 1:30-2:30PM

**Required Course Texts**

The California Naturalist Handbook, Nevers, et al.

California’s Changing Landscapes, Barbour et al.

Trees and Shrubs of California, Stuart and Sawyer

**Additional Course Materials**

You’ll need a **bound journal** for field observations and journal writings. Your lecture notes need to go elsewhere. The best inexpensive choice is either an unlined or graph-lined black “Composition” notebook. The just-as-good but more elegant choice is a blank bound artist’s sketchbook or Moleskine. You have an hour of required writing per week, and will *also* be keeping all your observations, illustrations, musings, etc. in it, so find a journal that you like, are comfortable carrying, and will enjoy using. You should invest in some **waterproof ink pens**, or use **pencil**. Your notebook will inevitably get wet at some point and traditional ink will run. You *may* wish to invest in **binoculars** and/or a **hand lens**, but speak to me before you purchase either.

**Course Organization**

Lectures

Lectures are intended to provide background information to help you understand and appreciate what you see out in the world. In the first third of the semester we’ll cover earth history, California climate, geography, and geology, and basic principles of ecology and evolution. In the second third we’ll discuss the major California habitat types and the environmental stresses that face the plants and animals that live there. In the third portion of the semester we’ll cover the organisms themselves, their basic biology and some specific aspects of their natural history. Most reading assignments are noted on your schedule and are drawn from the texts listed above as well as many articles posted on Canvas.

Labs and Field Trips

Labs include both off-campus field trips to a variety of local habitats and on-campus, in-the-lab forays into the identification of major plant and animal groups. You need to provide your own transportation to field meeting sites and I encourage car-pooling since some places have very restricted parking.

Field trips will usually begin at 12:10PM *at the field site*! That’s a half-hour later than scheduled in order to give you time to get from campus to the meeting site. It’s really important that you are on time to these field trips because we will typically leave promptly, on foot, to explore. It’s also important that you dress appropriately…*plan* on rain, wind, cold, and wet feet. Only a torrential downpour will force us indoors! If the weather looks *really* bad, we’ll exchange the scheduled lab for one of the indoor labs, but realize that these decisions may be quite last minute so you must be prepared to check the class Canvas site, and make sure I have up-to-date contact info for you.

On-campus labs will begin promptly at 11:40AM.

*Bring your journal to every lab and every field trip*, and also bring whatever other resources are indicated on the schedule. You will usually bring your trees and shrubs book, and you will always use items from Canvas in lab and sometimes in the field. *Be sure to download and print these out ahead of time!*

Readings

Readings can be from the two main textbooks (*The California Naturalist Handbook* and *California’s Changing Landscapes*) or from articles or book chapters posted on Canvas. Sometimes, you will be required to answer questions about the readings on Canvas *before* class…this is my way of making sure we don’t try to discuss things that no one has read! Keep a close eye on the schedule so you can come to lecture and lab prepared.

Journals

You will be keeping a natural history journal for the duration of the semester. In this journal will go 3 items:

*1) All notes, observations, illustrations, and musings related to scheduled labs.*

*2) An entry for each class field trip.*

*3) One hour, minimum, of additional writing and/or drawing weekly.*

At least one half-hour of this writing needs to be observational (e.g., how a spider spins her web, how a group of deer move across a meadow they’re foraging in, how different trees bend differently in the wind, etc.) while the other half hour can include random thoughts, poetry, responses to our readings and drawing if you wish, or not. I will be collecting your journals regularly, usually on Wednesdays for return to you at Friday’s lab. *This requirement will teach you how to keep a properly formatted nature journal, and get you looking at the world and listening to your own thoughts.*

Class Project

As a class, we will be conducting a Citizen Science project using the iNaturalist platform. We will lead a 1-day “BioBlitz” during which we scour the College of the Redwoods campus for organisms, identify them with the help of guest experts, and upload photos of all species to the iNaturalist website thus creating a publicly-available snapshot of the biodiversity of our campus. *This requirement will help you appreciate how even novice naturalists can facilitate scientific progress.*

Volunteer Work

Each of you is required to participate in a single volunteer opportunity for a local environmental organization, e.g., Humboldt Botanical Gardens, Friends of the Dunes, Friends of the Arcata Marsh, Baykeeper, Humboldt State Natural History Museum, etc. I will help facilitate these opportunities by publicizing when volunteer events are happening, and we may even go as a group for extra fun. *This requirement will help you appreciate the importance of community members in environmental resource management.*

Individual Project

Each of you will carry out an individual project that will take absolutely no more than 8 hours of time over the course of the semester. It is up to you to define this project but it must include a deliverable…a collection of specimens, an inventory of plants found in a particular place, a set of illustrations, signage identifying trees on campus, a poster showing the results of an experiment, and the like. You will give a short presentation on your project on the last day of class. I will help you brainstorm ideas and shepherd you through the stages…just let your curiosity flow and you will arrive naturally at a good project for you. *This requirement will lead you to become the expert on something.*

Quizzes and Exams

For the first half of the semester you will have regular small quizzes that test you on lab and field-related skills and information. Typically, each quiz covers the most recent skills you’ve learned (journal entry format, fern identification, etc.), and the most recent field trip/s.

Twice during the semester you will have exams that cover primarily lecture material. You will receive a study guide a week prior to each exam, and if you’ve been taking good notes and paying attention your review should be manageable in that time frame.

Your final exam will cover *all* lecture and lab/ field trip material. Some of this material will have been on previous quizzes and exams, but some will be new material. You will receive a study guide for the final.

**Grading and Point Breakdown**

lecture exams 2 X 100 200

lab quizzes 4 x 25 100

reading response variable 100

class project participation 100

volunteer work 100

individual project 100

final exam 100 lecture and 100 lab 200

journals approx. 20/ week 100

1000 total points possible

If you receive 90-100% of total points you will receive some flavor of A; 80-89% earns a B; 70-79% earns a C; 60-69% earns a D; < 60% results in a grade of F. There is no curving or otherwise creative grading.

**Exam Makeup Policy**

Exams can be made up only if you present me with a *verifiable and compelling* excuse *before* the scheduled exam time. Even if you can’t get me directly you can send me an email or leave a message on my voice mail.

**California Naturalist Certification**

If you pass this class with a C or better, completing all requirements, you are eligible to become a Certified California Naturalist. This certification indicates not only that you possess the scientific background and skill set to be a competent naturalist, but provides opportunities for personal and professional development, and continued scientific activity. At the very least, it is a line on your resume that makes you a preferred candidate for positions -- volunteer, paid or educational -- in environmental science and environmental education. Certification costs $50 or $100 depending on whether you are a full or part-time student, and I will require a commitment from you about a month into the semester.