

## Course Syllabus

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| <b>Course Code &amp; No. - Section:</b> | ENVS 205 (2)                                   |
| <b>Course Title (Credits):</b>          | Environmental Systems Lab                      |
| <b>Term &amp; Year:</b>                 | Spring 2014                                    |
| <b>Course Ref. No. (CRN):</b>           | 10159  |
| <b>Instructor:</b>                      | Andy Rost                                      |
| <b>Phone:</b>                           | 775 831 7532                                   |
| <b>Email:</b>                           | arost@sierranevada.edu                         |
| <b>Office:</b>                          | 2 <sup>nd</sup> floor TCES – SNC Faculty Area- |
| <b>Office Hours:</b>                    | W 9:00-12:00, T-TH 11:30-12:30                 |
| <b>Class Meeting Time:</b>              | T 1:00 - 3:45 p.m.                             |
| <b>Location:</b>                        | TCES, room 205                                 |
| <b>Prerequisites (from Catalog):</b>    | ENGL 102 and CORE 101 and Math                 |
| <b>Corequisites (from Catalog):</b>     | ENVS 200                                       |

### Course Description

This lab accompanies ENVS 200, Environmental System. It allows for the actual practice of science: posing hypotheses, gathering data, organizing and presenting data, and statistically testing hypotheses. It also includes other approaches to science: simulation under constraints, careful observation, and organization and classification.

### Student Outcomes (from the Course Approval Form)

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

1. Conduct scientific research, include hypothesis formation, experimental design, and statistical tests
2. Assess hypotheses for testability, and articulate the data necessary to test
3. Identify the correct statistical test for a particular data set, under limited testing circumstances.
4. Organize data and do calculations in Excel or other spreadsheet, and organize their work for presentation.
5. Create correctly formatted graphs of actual data, both on paper and using Excel
6. Create lab reports of correct formats and sequence
7. Describe the key characteristics of the ecosystems and many species of the Tahoe Basin

### Methods of Assessing Student Outcomes

Student outcomes will be assessed using the following:

1. Assignments of increasing levels of challenge ;
2. Writing assignment(s), submitted in stages, both based on library and lab work;
3. Written in-class, closed-book examinations;
4. Projects done in the field.
5. Written in-class, closed-book, comprehensive final examination and/or project that includes coverage of the topics discussed in the course outline.

**Instructional Strategies**

The lab will utilize field trips, observations, lab work, computer models, software, and discussions. The course makes use of the *Moodle* course management system.

**Required Texts and Materials**

1. Laptop computer (one that meets the published SNC Laptop Requirements)

**Attendance**

Students are required to attend each lab. More than half of the labs will be due at the end of the lab period with no option for a make-up assignment. Lab assignments are due either at the end of each period or at the beginning of the lab period. Roll will be taken for scholarship purposes. Students should be on time to participate in class activities.

**Data Integrity Responsibility**

In science, data integrity is everything. Students should record data in a safe permanent form, for example in a notebook, rather than a sheet of paper or in electronic form. At the end of the field trip and/or lab, all members of the lab group should have the data. The lab's purpose is empiricism. Students are responsible for gathering data. If absent during data collection, this can't be done, and student must rely on and trust other's work. There is a 30% penalty for missing data gathering for any lab. Students in group where the data is lost will be treated as if they weren't in lab, and suffer the same 30% penalty. All members of data-gathering groups are responsible for data custody. Fabrication of data will be treated like plagiarism: you're claiming work that's not yours. First offenders will fail the assignment, plus have their grade lowered one point, plus be added to the school plagiarism database.

**Class Requirements**

Lab assignments are due at the beginning of class, no exceptions. Although labs are typically done in lab groups, assignments, particularly lab reports, are produced individually by each student. Students are required to bring laptops to class. Students should have an installation of Microsoft Office (Word, Powerpoint, Excel) or Open Office ( [www.OpenOffice.org](http://www.OpenOffice.org) ). Please dress appropriately and be prepared to spend some time outside. Students may be asked to offer cars for car-pooling; gas expenses will be compensated.

**Sanctions for Cheating and/or Plagiarism****The Honor Code**

The faculty of SNC believes students must be held to high standards of integrity in all aspects of college life in order to promote the educational mission of the College and to encourage respect for the rights of others. Each student brings to the SNC community unique skills, talents, values and experiences which, when expressed within the community, contribute to the quality of the educational environment and the growth and development of the individual. Students share with members of the faculty, administration and staff the responsibility for creating and maintaining an environment conducive to learning and personal development, where actions are guided by mutual respect, integrity, responsibility and trust. The faculty and students alike must make diligent efforts to ensure high standards are upheld by their colleagues and peers as well as themselves. Therefore faculty and students accept responsibility for maintaining these standards

at Sierra Nevada College and are obligated to comply with its regulations and procedures, which they are expected to read and understand.

### **Consequences of Violating the Student Honor Code**

SNC students and faculty share the responsibility for maintaining an environment of academic honesty. Thus, all are responsible for knowing and abiding by the SNC Faculty/Student Honor Code published in the current SNC Catalog. Faculty are responsible for presenting the Honor Code and the consequences of violating it to students at the start of their classes AND for reporting all incidences of academic dishonesty to the Provost. Students are responsible for knowing what constitutes CHEATING, PLAGIARISM and FABRICATION and for refraining from these and other forms of academic dishonesty. Violations of the Honor Code become part of a student's academic record.

1<sup>st</sup> Offense: Student receives a zero for assignment/exam and counseling with faculty on the honor code, consequences for violating the honor code, and the value of academic honesty in learning.

2<sup>nd</sup> Offense: Student fails course and receives counseling with faculty on the honor code, consequences for violating the honor code, and the value of academic honesty in learning.

3<sup>rd</sup> Offense: Student is expelled.

Moodle Course Site: <http://moodle.sierranevada.edu/moodle/>

## **Grading Policy**

| Assignments        | Points | # of assignments | Total      |
|--------------------|--------|------------------|------------|
| In Lab Assignments | 10     | 12               | 120        |
| Lab Reports        | 15     | 2                | 30         |
|                    |        | <b>Total</b>     | <b>160</b> |

## **ADA Accommodations**

In accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, students with a documented disability are eligible for support services and accommodations. If a student wishes to request an accommodation, please contact the Director of Academic Support Services, Henry Conover, at (775) 831-1314 x7534, [hconover@sierranevada.edu](mailto:hconover@sierranevada.edu) or go to the OASIS offices on the third floor of Prim Library within the first week of the semester.

## **The SNC Email System**

The SNC email system is the official communication vehicle among students, faculty members and administrative staff and is designed to protect the confidentiality of student information as required by the Family Educational Rights and Privacy Act of 1974 Act (FERPA). Students should check their college email accounts daily during the school year.

Students have a right to forward their SNC e-mail to another e-mail account (for example, @hotmail or @gmail). However, confidentiality of student information protected by FERPA cannot be guaranteed for SNC e-mail forwarded to an outside vendor. Having email redirected does not absolve a student from the responsibilities associated with official communication sent to his or her SNC email account.

## ENVS 205 Lab schedule

| WEEK | DATE | LAB                 | Inside<br>Outside | Assignment | Computers<br>use |
|------|------|---------------------|-------------------|------------|------------------|
| 1    | 1/21 | Watershed Model     | I                 | In Class   | No               |
| 2    | 1/28 | Local Exploration   | O                 | In Class   | No               |
| 3    | 2/4  | Dichotomous Key     | I                 | In Class   | No               |
| 4    | 2/11 | Tree Distribution 1 | O                 | In Class   | No               |
| 5    | 2/18 | Tree Distribution 2 | I                 | Lab Report | Yes              |
| 6    | 2/25 | Systems             | I                 | In Class   | No               |
| 7    | 3/4  | Climate Diagram     | I                 | In Class   | No               |
| 8    | 3/11 | Snow Lab            | O                 | In Class   | No               |
| 9    | 3/25 | Biodiversity        | O                 | In Class   | Yes              |
| 10   | 4/1  | WQ                  | O                 | In Class   | Yes              |
| 11   | 4/8  | Energy Audits       | O                 | In Class   | Yes              |
| 12   | 4/15 | Population Growth 1 | I                 | In Class   | Yes              |
| 13   | 4/22 | Population Growth 2 | I                 | Lab Report | Yes              |
| 14   | 4/29 | Wetlands, S. Lake   | I                 | In Class   | Yes              |
| 15   | 5/6  | Make up Lab         |                   |            |                  |

\*labs are subject to change throughout the semester, please check the class Moodle Site