# BIO 410: Plant Community Ecology

## **Fort Lewis College-Fall 2012**

**Class Schedule:** T/R 12:45-2:05 p.m. Rm# Berndt 310

Instructor: Julie Korb, Ph.D. korb\_j@fortlewis.edu

Office: 2445 Berndt Hall phone: 382-6905

Office Hours: T/R 2:05- 3:00 pm or by appt.

**Required Texts:** There are no required texts for this course. This course does require a lot of reading of peer-reviewed journal articles that will be located on the O drive under Korb in a folder labeled Plant Community Ecology.

**Course Objectives:**  This course will introduce students to major conceptual issues and current data analysis techniques in plant community ecology. This course will emphasize biotic and abiotic variables that affect the distribution and abundance of plant species including natural and anthropogenic disturbances. We will use native ecosystems in southwestern Colorado, field collection data, and current scientific literature to explore these topics.

**Class Format:** It is imperative for you to be at class in order to learn the course material and to receive a good grade. This class will focus on using a variety of learning techniques. Generally, the first half of the class period will be spent on lectures and the latter half of the class period will be dedicated to group discussions/active learning exercises.

**Reading Assignments:** All reading assignments are assigned to prepare you for each class period and therefore you should do your weekly assignments BEFORE you come to class. I will draw information from class readings each day and thus it is necessary that you will have read your assignment so you will be able to participate in class discussion.

**Laboratory Format:** There is no laboratory associated with this class. We will however have a required one-day field trip on Sept. 1st starting at 9 am until 4:30 pm to collect data that we will analyze in class. We will meet at parking facilities (Physical Plant) near the SW Center. Please dress appropriately by wearing suitable clothes and shoes, bringing a rain jacket, water, lunch and a notebook.

**Evaluation:** You will have numerous opportunities to demonstrate your knowledge of plant community ecology including written exams, oral presentations, group discussion participation, and assignments. Grading will be done on a point system.

### Evaluation Format Points Percentage

Exams (2) @ 100 pts 200 25.0%

Discussion Article Leader 100 12.5%

Group Discussion Participation 100 12.5%

All Day Field Trip 75 9.375%

PC-Ord Assignments 100 12.5%

Class Assignments (various points/

 assignments) 75 9.375%

Final Presentation 100 12.5%

Final Exam 50 6.25%

 **800 points total 100%**

**Midterm grades:** Midterm grades will based up one exam, ½ group discussion participation, all day field trip and class assignments. If you receive a failing midterm grade you will be asked to withdraw from the course.

**Exams:** No make-up exams will be allowed without prior instructor permission or a note from a physician. Exams during the semester will cover the material since the first of the semester or the previous exam. The final exam consists of take-home essay questions.

**Discussion Article Leader:** Each student will be required to give a 10 minute summary presentation on a peer-reviewed article related to plant community ecology. I will provide you with articles to choose from. This summary presentation will lead into a discussion of the article facilitated by the same student presenting the summary presentation. You will be required to provide your classmates with a list of questions a week before your presentation and discussion of the article. This will allow you to further develop your skills in scientific reading, interpretation, and presentation.

**Group Discussion:** Throughout the semester will we have both small and large group discussions regarding class lecture material and reading assignments. These discussions will provide you with the opportunity to explore ecological concepts more in-depth with your classmates and myself. For your group discussion grade, you need to be present on discussion days. If you are absent, it will result in a zero for your group discussion grade for that day. If you are present you will receive 5 points, if you talk you will receive another 5 points for the day.

**Final Presentation:** Each student will give a 12 minute final presentation in Powerpoint with 3 minutes for discussion based on a topic of the student’s choice related to plant community ecology. Students must pick one vegetation type (e.g., riparian, tropical rainforest, arctic tundra, grassland, ponderosa pine forest) and one theory/major theme of plant community ecology (e.g., continuum concept, intermediate disturbance hypothesis, competition regulation, gradient analysis, succession theory, life-history traits) and illustrate how the theory/major theme has been advanced through plant community ecology research. You must cite at least four scientific articles for this presentation and tie the various research articles into one cohesive presentation.

**Students with Disabilities:** “"Fort Lewis College is committed to providing all students a liberal arts education through a personalized learning environment. If you think you have or you do have a documented disability which will need reasonable academic accommodations, please call, Dian Jenkins, the Coordinator of Disability Service, 280 Noble Hall, 247-7459, for an appointment as soon as possible."

**Academic Dishonesty:** There is a zero tolerance policy for academic dishonesty in the Biology Department and at Fort Lewis College. The first offense the student will receive a zero on the assignment and will be reported to the Provost. The second offense the student will receive an F for the course and also reported to the Provost. Two reports to the Provost during a student’s academic career result in expulsion from Fort Lewis College.

**Final Word:** Enjoy this course. Although learning a new subject is challenging at times, it is also FUN. If you have problems with anything regarding this course please come visit me during my office hours or make an appointment at a time convenient for both of us. I am looking forward to an exciting semester learning about the plant community ecology.