Lab instructor: Gretchen Kroh, PhD candidate, Department of Biology  
Office: 441 Biology Building. Email: Gretchen.Kroh@colostate.edu  
Office hours: Email me (24 hours in advance please) I’m flexible.

BZ440 Professor: Elizabeth Pilon-Smits, Department of Biology  
Office: 446 Biology Building. Email: epsmits@colostate.edu

Course Objectives
BZ441 is an upper level botany lab course focusing on plant physiology. Target groups are junior/senior students majoring in Biology/Botany, Horticulture, Soil and Crop Science, Forestry, Rangeland Ecology, and related areas. Graduate students are also welcome.

The objectives of BZ441 are for students to gain experience in approaches and techniques commonly used in plant physiology. The course consists of a lab part and a recitation part. The lab involves hands-on experiments, some designed by the instructors, and some will be student-designed. For the recitation, the aim is to integrate and apply the students’ knowledge, via discussions and exercises. The students will practice with online research, analytical reading, experimental design, data analysis, writing a scientific report and a popular science piece, interviewing someone who has their dream job in plant science and reporting about it to the class. Through all of these activities, the students will be trained not only in skills but also to apply their knowledge to problem solving and to link their area of study to broader areas of intellectual endeavor and to society.

This 2-credit class meets once a week 1 – 3:50 pm on Wednesdays in 211 Yates. In addition to the 3 contact hours, the students will do at least one hour of homework each week (writing, reading, online searches). The laboratory and recitation components do not always follow a fixed schedule but will be mixed up as needed for optimal use of time.

Text and Website
A lab/recitation manual is available on the BZ441 course website (login with your CSU eID and password). Please print out the manual and bring it to the lab each week. Students are expected to read each week’s manual before coming to class (this is very important as labs can be fast paced). There will be quizzes and lab journal checks to verify that the student is prepared for this week’s lab and has completed the post-lab write-up from the previous week.

Student evaluation
The BZ441 grade is determined half by the lab portion (400 points), and the other half by the recitation portion (400 points).

The final grade of lab portion will be based on in-class participation (50 points), quality of the lab notebook (100 points), student project (100 points), a written report of one experiment (100 points), and final quiz (50 points).

The final grade for the recitation portion of the grade will be based on in-class participation (50 points), and on grades from various assignments (400 points total).
If you are going to miss a lab/recitation,
Please notify your instructor(s) *in advance* and discuss what you can to do to make it up (e.g. a literature review on the topic of that week).
If you miss more than two labs, you will receive a zero for the lab.

**Grading**
The grading scale is traditional, and there is no curving of grades.

A: 100-90%  B: 89-80%  C: 79-70%  D: 69-60%  F: < 60%