Introduction
Welcome to the laboratory for General Botany! This is your time each week to explore the fascinating world of plants. Here you will learn more about plants and have hands-on opportunities to investigate the morphology and anatomy of the major groups of plants and fungi. Lab activities support the information presented during lecture, so doing well in lab should help you perform better in lecture.

Attendance
Lab will begin promptly at 2:00 pm. I expect you to be on time and present for every lab. You are required to attend lab at your scheduled time (if you have a recurring conflict that prevents you from attending lab at your scheduled time you should either change sections or drop this course NOW). If you know you are going to miss a lab because of an excused absence, talk to me before the week of your absence so we can make arrangements for you to have access to the lab.

You are required to stay in lab until you have completed all of the exercises or until the lab formally concludes at the scheduled time. When you leave lab, you are required to sign out; a sheet will be available at the front of the room for you to sign your name and the time you are departing.

Lab Components
Each lab will consist of four components:

1. Pre-Lab Exercise
This component of the lab, available on Blackboard Lab, will include textbook reading assignments (Evert, R. F. and S. E. Eichhorn. 2012. Raven Biology of Plants, 8th edition, W. H. Freeman & Co.) and a Pre-Lab Exercise.

The pre-lab reading provides you with background information that will help you better understand the lab exercises. With this information you should be able to work more efficiently and effectively in lab.

You MAY:
- Review the pre-lab exercise as many times as you wish.
- Print a copy of the pre-lab exercise for additional study or refer to it while you take the optional pre-lab quiz.
- Study the pre-lab exercise with another student.
- Refer to your textbook while reading the exercise.
- Take notes to help you learn the information.
- Ask me for help if you have questions.

Each pre-lab becomes available Tuesday at 5pm the week before the scheduled lab.

2. Optional Pre-Lab Exercise Quiz

The pre-lab quiz, available from Blackboard Lab, provides you with a way to see if you understand the material from the pre-lab exercise. If you take ALL of the pre-lab quizzes and have at least a 70% average on your final pre-lab quiz average (average based on scores from all quizzes), you will earn 50 points added to your total lab points (see additional information under Lab Grade).

You may take each pre-lab quiz as many times as you wish; your highest score will be recorded. Information presented in Pre-Lab Exercises/Pre-Lab Quizzes may be included on Post Lab Quizzes and Lab Practicals.

Each pre-lab quiz becomes available Tuesday at 5pm the week before the scheduled lab. The opportunity to take the pre-lab quiz ends at 2pm Tuesday the week of the scheduled lab.

NOTE: you are NOT allowed to take the pre-lab quiz with any form of help from another student. To do so is dishonest and will be dealt with accordingly.

3. Lab Exercise

Lab exercises follow a written guide (available from Blackboard Lab) consisting of a sequence of activities. Instructions are provided; read them carefully and proceed at your own pace in the order in which the exercises are presented. New vocabulary, which are terms you need to know, is presented in bold text along with definitions and additional information.
Bring a printed or electronic copy of the lab exercise with you to lab. Also bring your textbook with you to lab; the lab exercise will reference helpful illustrations and images from your textbook.

You may work with another student or a group of students however, I expect everyone to be a full working participant. As you work through the lab exercise:
- Answer all questions using your own words (your words will mean more to you when you are reviewing the information).
- Complete all tables.
- Make drawings as directed.
- Label illustrations when available.
- Study demonstration materials.

You will not turn in your completed lab exercises; they are a tool to help you learn and remember the information.

4. Post Lab Quiz

A 100-point Post Lab Quiz over the information presented in the lab exercises, pre-lab reading assignments, and pre-lab information will be given at the beginning of the following lab. Questions are given orally and are usually based on projected images of structures you viewed during the lab exercises. Typical questions involve giving the name of a structure, the function of a structure, the origin of the structure, the type of plant in which a structure is found, and answers to questions you were asked during the exercises.

The purpose of the weekly quizzes is to encourage you to learn the material week by week. It is very difficult, if not impossible, to wait until the week of the lab practical to understand everything we have covered; there is simply too much information. Also, an understanding of the previous week’s information is often necessary to fully understand following labs.

Post lab review images with example questions are available on Blackboard for most labs. In addition, images are available on lab practical reviews; reviews are also available on Blackboard Lab. You are permitted to take photographs during lab exercises.
Each post lab quiz will begin promptly at 2:00 pm in either CAV123 or another designated classroom. No make-ups will be given on quizzes nor will questions be repeated if you arrive after the quiz has started. To mitigate missed quizzes or a poor performance, you will be given at least 12 post lab quizzes; your post lab quiz average will be based on your 10 best scores.

**Lab Grade**
The points from lab are based on:
- 300 points from 3 100-point lab practicals,
- 100 points based on the average of your 10 best 100-point post lab quizzes.
- 50 bonus points added to your lab total points if you complete all Pre-Lab Quizzes and have at least a 70% average.

Final lab average = 3 lab practicals + post-lab quiz average + bonus points = total/4.

Lab credit for the course is one semester credit hour of the 4 semester credit hours awarded for General Botany, therefore, the points you earn from lab account for 25% of your course grade. To calculate your final lab points, multiple your lab average by 0.25 to represent 25% of your grade.

**Lab Protocols**
After making wet mounts, wash and dry the slides and cover slips (discard broken ones in the glass container at the front of the room) and return cleaned slides and coverslips to their boxes on your worktable. When using prepared slides, obtain one at a time and promptly return it to the proper slide tray when you are finished with it (for some slides we do not have enough for every student to have one at the same time).

Treat materials with care; many of the slides we will be using during the semester are expensive and difficult to replace.

When you have finished the lab exercises, clean your work area, and return all materials to their proper place. Prepare your microscope for storage by:
- Making certain that no slide is on the stage.
- Placing the lowest objective in position.
- Using the coarse adjustment knob to move the nosepiece as close as possible to the stage.
- Rewinding or folding the power cord.
- Placing the plastic cover over the microscope.
- Returning the microscope to a storage area (either in the storage cabinet at your workstation or on the shelves at the back of the lab room).

If you spend your time efficiently during your scheduled lab, you will be allowed to come in during other times in the week when the lab is not in use. Tell me when you need additional time and we will make what arrangements we can. Please remember that extra time in the lab is a privilege; this privilege will be rescinded for everyone if it is not used properly (i.e. if materials and equipment are not cared for properly or if the lab is used as a social center rather than a study area).

Ask me questions if you don't understand or if you are uncertain about any part of an exercise. I am here to help you learn.