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 conflict that prevents you from attending lab at your scheduled time you should either change sections or drop this course NOW). 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 Protocol**
For each lab exercise you may work with another student or a group of students; however, I expect everyone to be a full working participant. When an answer is requested in an exercise, you must answer it on your lab write-up using your own words. Your words will mean more to you when you are reviewing the information for the post lab quiz and lab practical. You will not turn in your completed lab exercises.

Instructions are provided for each lab exercise; read them carefully and proceed at your own pace. Answer all questions; complete all tables. Make drawings as directed. Study demonstration materials.

After making wet mounts, wash and dry the slides and cover slips (discard broken ones) 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. Prepare your microscope for storage by:

1. Make certain no slide is on the stage.
2. Place the lowest objective in position.
3. Use the coarse adjustment knob to move the nosepiece as close as possible to the stage.
4. Rewind or fold the power cord.
5. Place the plastic cover over the microscope.
6. Return 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; however, this semester the lab is being used by another course on Thursdays. The botany lab will be broken down each Wednesday to prepare for the other class. Tell me when you need additional time and we will make what arrangements we can (i.e. make slides available for further study). 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.

Lab Grade
You can earn a total of 400 points in lab; these will be added to the points that you earn in lecture for a single course grade (see lecture syllabus). The points from lab are based on:

- 300 points from 3-100 point lab practicals,
- 100 points based on an 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 a 70% average or higher.
- Lab Grade = 3 lab practicals + post-lab quiz average + bonus points = total/4

Lab Preparation Requirements

- The Pre-Lab Exercise becomes available on Blackboard at the conclusion of the previous Tuesday’s 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 pre-lab quiz.
  - Study the pre-lab exercise with another student.
  - Refer to your textbook during the exercise.
  - Take notes to help you learn the information.
  - Take the pre-lab quiz. The pre-lab reading provides you with background information that you will help you understand the lab exercises. With this information you should be able to work more efficiently and effectively in lab. The pre-lab quiz provides you with a way to see if you know the material at the level I expect. If you take ALL of the pre-lab quizzes and have a 70% or higher average on your final pre-lab quiz average, you will earn 50 points added to your total lab points (see additional information under Lab Grade). 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.
  - The information presented in the Pre-Lab Exercises/Pre-Lab Quizzes will be included on Post Lab Quizzes and the Lab Practicals.
- Bring either a **hardcopy or electronic version of the lab exercise** from Blackboard with you to the scheduled lab.
- Bring your **textbook** with you to lab.

- Be prepared to take a **quiz** over the previous week's lab information.
  
  - You will have the opportunity to earn 100 points based on individual 100-point lab quizzes; the final score will be based on the average of your 10 best scores.
  
  - The purpose of the 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 the following lab.
  
  - Post lab review material is available on Blackboard.
  
  - A Lab Practical Review is also available on Blackboard for each practical.
  
  - Each lab will begin promptly at 2:00 pm with a post lab quiz; quizzes will be given in CAV123. No make-ups will be given on quizzes nor will questions be repeated if you arrive after the quiz has started.

### BOTANY LAB SCHEDULE

<table>
<thead>
<tr>
<th>Date</th>
<th>Lab Activity</th>
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<tbody>
<tr>
<td>Jan. 22, 23</td>
<td>The Microscope, Plant Cells</td>
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<tr>
<td>Jan. 29, 30</td>
<td>Tissue Systems and the Herbaceous Stem</td>
</tr>
<tr>
<td>Feb. 5, 6</td>
<td>Woody Stems and Secondary Growth</td>
</tr>
<tr>
<td>Feb. 12, 13</td>
<td>Roots</td>
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<tr>
<td>Feb. 19, 20</td>
<td>Leaves</td>
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<tr>
<td>Feb. 26, 27</td>
<td>LAB PRACTICAL #1</td>
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<tr>
<td>March 5, 6</td>
<td>Algae</td>
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<tr>
<td>March 12, 13</td>
<td>Spring Break!</td>
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<tr>
<td>March 19, 20</td>
<td>Non-Vascular Plants</td>
</tr>
<tr>
<td>March 26, 27</td>
<td>Seedless Vascular Plants</td>
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<tr>
<td>April 2, 3</td>
<td>LAB PRACTICAL #2</td>
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<tr>
<td>April 9, 10</td>
<td>Gymnosperms: Angiosperm Gametophyte Development</td>
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<tr>
<td>April 16, 17</td>
<td>Angiosperms: Flowers</td>
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<td>April 23, 24</td>
<td>Fungi</td>
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<td>April 30, May 1</td>
<td>LAB PRACTICAL #3</td>
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