Welcome to Plant Physiology! You will be learning about the integrated and coordinated physiological processes that enable plants to grow under the varied conditions found in nature. This course will focus on three broad areas of plant physiological research: carbon and nitrogen metabolism (photosynthesis, respiration, and N assimilation), plant water relations and mineral nutrition, and plant growth and development. An understanding of the biology of plants has implications for our ability to address applied questions and issues facing our world today such as agricultural concerns, handling threatened species and habitats, and global change to name a few. We will investigate some of these issues through review of primary literature and in-class discussions.

**Lecture**

Tues. & Thurs. 9:30 - 10:45 Chemistry 251

**How to Reach Me**

Office: Life Sciences Building - Office #317  
Mail: My mailbox is located across from the Biology departmental office (SSB 207). I also check my e-mail frequently, talilee@d.umn.edu.

Telephone: Office 726-7774

Office Hours: Tues. 2:00 – 3:00 and Friday. 9:00-10:00, or by appointment.

**Goals and Outcomes for the Course**

By the end of this course, it is my goal that you demonstrate:

- a more in depth understanding of the functioning of plants as organisms.
- an awareness of the kinds of questions that plant physiologists ask and how they go about seeking answers to those questions.
- improved skills in critically reading primary literature.
- an increased appreciation for plants as fascinating and important components of our living world.

**Course Texts**


Journal articles or supplementary handouts - on the course site or provided by your instructor.

**Grading and Assignments**

Your course grade will be determined from the following components (actual point assignments may vary slightly):

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<tr>
<th>Component</th>
<th>Points</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Two midterm exams (75 points each)</td>
<td>150</td>
<td>43 %</td>
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<tr>
<td>Final exam (25 pts which will be comprehensive)</td>
<td>100</td>
<td>28.5 %</td>
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<tr>
<td>Miscellaneous lecture assignments (literature reviews/quizzes, problem sets or...)</td>
<td>80</td>
<td>23 %</td>
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<tr>
<td>Participation points</td>
<td>20</td>
<td>5.5 %</td>
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<tr>
<td><strong>Total</strong></td>
<td>350</td>
<td><strong>100 %</strong></td>
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Exams will be on the material covered in lectures, as well as readings, assignments and in-class discussions. They will exist of a mix of question types: short answers, problem solving, short essays, and multiple choice. Literature reviews will be graded as writing assignments so not only will your skills in interpreting the literature be evaluated but also the effectiveness of your written communication.
Grades will be assigned according to the scale: A (92.5-100); A- (89.5-92.4); B+ (86.5-89.4); B (82.5-86.4); B- (79.5-82.4); C+ (76.5-79.4); C (72.5-76.4); C- (69.5-72.4); D+ (66.5-69.4); D (62.5-66.4); D- (59.5-62.4); F < 59.4.

**Expectations, Policies, Resources, etc.**

- Be sure to check your university assigned e-mail address regularly (or make sure your mail is forwarded to the address you do use). We may use email to communicate information such as a change in schedule, clarify details of an assignment or a common question before a test or ...

- In accordance with University policy, attendance at class sessions is expected. Your attendance and involvement during class, especially active participation in discussions, will count toward your participation points.

- All exams and assignments are due on the date requested unless you have my prior consent or you have an authorized absence from the Dean. If you are absent, you are responsible for getting the notes and/or assignments from your classmates. Late assignments will receive an automatic penalty of 5% for each day following the due date. Please communicate with me concerning ANY absence even if you think it is clearly excused.

- **Academic Integrity** - I expect students to adhere to the University’s policies for academic integrity. Plagiarism, cheating, and other activities are forms of academic misconduct. Academic dishonesty tarnishes UMD’s reputation and discredits the accomplishments of students. UMD is committed to providing students every possible opportunity to grow in mind and spirit. This pledge can only be redeemed in an environment of trust, honesty, and fairness. As a result, academic dishonesty is regarded as a serious offense by all members of the academic community. In keeping with this ideal, this course will adhere to UMD’s Student Academic Integrity Policy, which can be found at [www.d.umn.edu/assl/conduct/integrity](http://www.d.umn.edu/assl/conduct/integrity). This policy sanctions students engaging in academic dishonesty with penalties up to and including expulsion from the university for repeat offenders.

- **Access for Students With Disabilities** - The University of Minnesota is committed to the policy that all of its students shall have equal educational opportunities. Any student who has a disability, whether permanent or temporary, which might affect their ability to perform in this class are encouraged to contact me and Disability Services in 258 Kirby Student Center as soon as possible. Adaptation of methods, materials and/or testing may be modified as required to provide for equitable participation.

- **Promotion of Bias-Free Instruction**: The University of Minnesota expressly forbids discrimination on the basis of race, color, gender, sexual orientation, disability, veteran’s status, ethnicity, religion, creed, national origin or marital status. If you believe that your instructor has not upheld this policy, you are invited to bring it to the confidential attention of the Biology Department Head (Dr. Matt Andrews, 207D SSB; 726-7263) or the Associate Dean of the College of Science and Engineering (Dr. Tim Holst, 140 Engineering; 726-7585).

- **Student Conduct Code** - The instructor will enforce and students are expected to follow the University’s Student Conduct Code ([http://www.d.umn.edu/assl/conduct/code](http://www.d.umn.edu/assl/conduct/code)). Appropriate classroom conduct promotes an environment of academic achievement and integrity. Disruptive classroom behavior that substantially or repeatedly interrupts either the instructor’s ability to teach, or student learning, is prohibited. Disruptive behavior includes inappropriate use of technology in the classroom. Examples include ringing cell phones, text-messaging, watching videos, playing computer games, emailing, or surfing the Internet on your computer instead of note-taking or other instructor-sanctioned activities.

- I expect you to come to class prepared, to participate in activities, to take responsibility for your learning and to act in a respectful, professional and responsible manner. In turn, you can expect the same from me. If you feel uncomfortable in class for any reason, please talk to me. It is extremely important to me to create a comfortable, interesting learning environment for everyone, and I welcome feedback at anytime. I will provide an opportunity for formal feedback with an end-of-the-course evaluation.