

**BIOL/PLHL 3060 Introduction to Plant
Physiology (M, W, F 9:30-10:20 Fall 2020)**

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Office Hours: Virtual office hours by appointment.

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COVID-19 ACCOMMODATIONS: CDC and state guidelines will be in place and followed. Classrooms will abide by a maximum 50% occupancy rate, face coverings will be required, classroom podiums will be situated more than six feet away from student seating, and there will be enhanced cleaning throughout the buildings.

We remain under pandemic conditions and expect to be in this state for the entire semester. In order to consistently provide the highest quality LSU education, all students should follow current LSU guidelines. These include the following:

1. If you have any signs of illness, do not come to class.
2. In order to protect all campus community members, the University requires everyone to wear facemasks/cloths on campus. Failure to do so is a violation of the code of student conduct.
3. Wash hands with soap and water or clean with sanitizer frequently, and refrain from touching your face.
4. If you have to cough or sneeze unexpectedly, please be mindful of others nearby and cough or sneeze into your elbow or shield yourself the best you can.
5. If you have been exposed to others who have tested positive for COVID-19, self-quarantine consistent with current CDC guidelines.

DAILY SYMPTOM CHECKER: You are required to respond to a daily symptom check request sent via email or text message each morning. Completing the symptom checker will take approximately one to two minutes. Once you have provided information about your symptoms, you will be given feedback on whether or not you are certified to return to campus and attend your classes. Additionally, if you test positive for COVID-19, you are required to report it in your daily symptom checker application.

RESOURCES FOR STUDENTS: Your health and safety are LSU's top priority. If you are feeling ill or overwhelmed with anxiety, please contact the [LSU Student Health Center](#) for medical advice and mental health support. General health care and mental health support are available for all enrolled students through telehealth appointments.

UNEXPECTED CHANGES TO COURSE PLAN: Due to the unpredictable nature of the situation, the format of the course and/ or requirements may be forced to change. Appropriate notification will be given if any necessary changes are to occur.

COURSE: BIOL 3060, Introduction to Plant Physiology, 3 credit hours. This a course intended for students that are majoring in programs related to plant or crop sciences.

REQUIRED TEXT: Jones, R. et al. (2012) [The Molecular Life of Plants](#), Wiley-Blackwell. ISBN 978-0-470-87012-9. The text assignments are intended to clarify and expand upon the information given in lecture. Some questions on each examination will be taken from portions of the readings. Students are responsible for the assigned readings **Moodle:** Notes and announcements will be posted on Moodle. Notes and study guides will usually be under course documents. You may also check Moodle to see your grades.

EXAMS AND QUIZZES: Exams. There will be 4 exams (20% each = 80% of final grade)

If you miss an exam, you will be required to take the make-up exam. Make-up exams (if needed) will consist of short answer and short essay type questions. Make-up exams will only be given for individuals with a valid excuse such as a note from the doctor and **who notify the instructor prior to the exam.** Students who miss an exam and fail to notify the instructor will be assigned a score of zero for that exam.

Quizzes and in-class activities: In addition to “standard” lectures, we will work on activities, discussions or short quizzes related to the lecture and text materials. Written summaries of the discussions, major topics discussed during the week or answers to questions/problems will be submitted in these classes and will count for 15% of the final grade. **Participation** in the in-class activities will count for 5% of the final grade.

Activity	Points	% of grade
Exams	400	57
Quizzes and homework	75	15
Participation	25	5
Lab	200	28
Total	500	100

Grading Philosophy

My aim is to conduct the class, with your help by participating, in a way that will foster a better sense of what it is like to “do science”. This means mastering some information but just as important is gaining insight into how this information was generated: what are some of the experimental methods used; how do we interpret the results of different kinds of experiments (graphs, mutant analyses, etc.); what are the strengths and limitations of different methods; and how have the methods changed over time. We will cover much of a large textbook this semester: it’s not reasonable for me to expect you to be accountable for all the details. However, some details are needed to understand and evaluate how plant physiology is done and what the “state of the field” is. Conveying “what is the critical mass of information I need to know?” is a challenge. For this reason, two exams are take-home to minimize the temptation to “cram and puke”. If it helps to work with others on quizzes and exams, I would encourage you to do so. However, all work submitted should be your own product.

Academic Integrity. All students are expected to read and be familiar with the LSU Code of Student Conduct and Commitment to Community (<http://saa.lsu.edu/code-student-conduct>). It is your responsibility as a student at LSU to know and understand the academic standards for our community. We take these academic standards very seriously in BIOL 3060. Students who are suspected of violating the Code of Conduct will be referred to the Office of Student Advocacy and Accountability. For undergraduate students, a first academic violation could result in a zero grade on the assignment or failing the class and disciplinary probation until graduation. For a second academic violation, the result could be suspension from LSU.

GRADING: The final grade will be based on the percentage of total points. Individual exams will not be given a letter grade. Your final grade will be based on your cumulative percentage. 98.0 - 100% = A+, 92.0 – 97.9% = A, 90.0 – 91.9% = A-, 88.0 – 89.9% = B+, 82.0 – 87.9% = B, 80.0 – 81.9% = B-, 78.0 – 79.9% = C+, 72.0 – 77.9% = C, 70.0 – 71.9% = C-, 68.0 – 69.9% = D+, 62.0 – 67.9% = D, 60.0 – 61.9% = D-, below 60% = F

Expectations: This is a 3-credit course. It is expected that you will spend at least 6-9 hours per week out of class reading assignments, studying lecture notes, preparing for examinations, and completing assignments.

Accommodations: If you have a disability and feel you need accommodations for this course, give me a letter from the **Office of Disability Services** (578-5919) indicating the existence of this disability and the suggested accommodation. Please do this by September 9 if you need accommodations for the first exam.

Extra-credit. A research paper on a subject mutually agreed upon by the student and the instructor before 10/26/2020 and submitted no later than 11/30/2020; the paper can contribute up to 10% additional to the final grade.

LECTURE SCHEDULE

Date	Topic	Text Reading (Chapters)
Online	Course Introduction	
08/28	Plant genome organization and expression	3
08/31	Plant Cells and Cell Walls	4, (emphasizing pp. 114-122)
09/02	Plant Cell walls and how to read a paper	
09/04	Paper review	
09/07	Labor day no classes	
09/09	Membrane transport and trafficking	5
09/11		
09/14	Seed germination and reserve mobilization and HW review	6
09/16		
09/18	Respiration and gluconeogenesis	7
09/21		
09/23	Exam 1 – in class	
09/25	Light perception and transduction	8
09/28		
09/30		
10/02	Photosynthesis and photorespiration	9
10/05	Paper Review	
10/07		
10/09	Photosynthesis and photorespiration	
10/12		
10/12	Hormones and signaling	10
10/14	Exam 2 distributed and Hormones and signaling	
10/16		
10/19	Nutrient acquisition and assimilation	
10/19		13
10/21	Exam 2 due in class	
10/23		
10/26	Intercellular and long-distance transport	14
10/26	Approval date for extra-credit papers	
10/28	Paper review	
10/30		
11/02		
11/04	Exam 3, in-class	
11/06	Environmental interactions	15
11/09		
11/11	Flowering and sexual reproduction	16
11/13		
11/16		
11/18	Senescence, ripening and cell death - dormancy	17 and 18
11/20		
11/23		
11/30	Review topics Zoom	
12/02	Extra credit due Review topics online only	
12/04		
	Exam 4 distributed	
12/11		
	Exam 4 due by noon	

Schedule subject to change if time is needed to comprehensively cover a topic.