

**AL102: Introduction to Plant Science**  
**Credit hours: Lecture (3 credits) Lab (1 credit)**  
**Lecture: on-line**  
**Lab: on-line**

**Instructor:** Dr. Rachel Jolley  
**Office:** SB 108  
**Office hours:** M W F 8:00-11:00 or by  
appointment email: jollyr@triton.uog.edu

**Course Description**

This course introduces students to basic scientific knowledge of plants. Students will learn scientific principles relevant to understanding plant growth and development, plant nutrition, green organisms in the environment and plant improvement. Lab experiments will give students experience in observing, collecting data, and writing reports on plant growth and reproduction. Three hours of lecture and three hours of lab weekly. Prerequisite: MA085 or higher.

**Rationale for Offering the Course**

This course is designed for students who are interested in learning about plants. This course is a prerequisite for upper division agriculture courses including horticulture and plant pathology.

**Time Commitment for this Course**

It is the policy of the University of Guam that a 3 credit hour course is representative of 45 contact hours (1 credit hour per 15 contact hours, 3 contact hours per week). Furthermore, it is expected that a student will spend an additional 2 hours, for every 1 contact hour, in reading, research, preparation, and the like.

A lab is treated differently. One credit hour for a lab is representative of 45 contact hours (3 contact hours per week for 15 weeks). Furthermore, it is expected that a student will spend an additional minimum of 3 hours, to prepare the lab report.

Over the semester, students are expected to spend, at least, a minimum 288 hours towards this course. This means committing at least 19-20 hours of work (on course activities, studying and lab preparation) per week.

**Schedule of Course Assignments**

This course will be taught 100% on-line this semester. However, this course is not self-paced. We will be covering approximately one (1) chapter each week of the semester (starting each Wednesday and finishing the following Tuesday). You are expected to login and do activities throughout the week. **If you are going to be absent from Moodle activities for longer than a week, you will need to work ahead. Please contact the instructor or TAs before you will be away.** From the experience of previous semesters, if a student does not participate in class activities every few days, they have difficulty passing the course.

**Late Policy**

Please work ahead and plan to have your assignments submitted on time. I will accept late work with a penalty (1 point deducted for each day late). If there are extenuating circumstances, please contact me as soon as possible to work out a personal schedule.

## **Course Requirements**

### **1. Required Textbook**

#### ***Stern's Introductory Plant Biology 15<sup>th</sup> Edition. By James Bidlack***

Textbook can be purchased through Amazon (\$166 new) or the ebook can be RENTED for \$52 (6 month rental). You can also purchase older editions cheaper or perhaps download the PDF of an older edition? Older editions are generally very similar and will work for this course.

Rental website: [Stern's Introductory Plant Biology \(mheducation.com\)](http://mheducation.com)

### **2. Students are required to pick up a lab kit from my office (SB 108) starting January 22<sup>th</sup>.** This is required for completion of the lab portion of this course. You will be notified when lab kits arrive.

### **3. Required Course Equipment and Supplies**

Computer/Laptop

Internet access

The lab kit contains basic equipment needed to complete the experiments, but several labs will require you to find/purchase fresh plant materials (onion, potato, pepper, spinach, celery, strawberries, etc.)

### **Moodle**

The course delivery for AL102 is online. This course uses the UOG Moodle AL102 link to manage the course. News and any information on the course are on this page. Lectures and information about the labs can be downloaded from this page. Students are expected to check this site for announcements and any updates on the course. Quizzes and exams will be taken through Moodle. Assignments will be submitted, and quizzes taken on this page.

### **Self-enrollment key**

To access and enroll in AL102/AL102L, first on the Moodle search bar, type and search "AL102" and "AL102L". When the class appears, click on the class and enter the following enrollment keys below:

1. AL102-01: **AL-102-01-SP24 (SP24RJ-g69YqN)**
2. AL102L 01/02: **AL102Lab23 (SP24RJ-g3w9Az)**

### **Communications with the Instructor**

The primary means of communication with the instructor will be through forums and email (Rachel.jolley@triton.uog.edu). You may also submit questions through Moodle Forums. Please do not expect an immediate response, but you should receive a response within 48 hours. The response may be answered through the News Forum in Moodle, if this information is relevant for other students.

### **Course Schedule**

Remember, this course is not self-paced. The new chapter starts on Monday of each week and all associated assignments are due by the following Sunday by midnight. Be sure to turn in assignments by the due date listed—I suggest giving yourself deadlines throughout the week so that you are not overwhelmed each weekend. Below is the schedule of assignments for this course:

Points	Study Questions	Chapter quiz	Total points	Due date (Monday, midnight)
Chapter 1: What is Plant Biology?	50	50	100	8/25
Chapter 2: The Nature of Life	50	50	100	9/1

Chapter 3: Cells	50	50	100	9/8
Chapter 4: Tissues	50	50	100	9/15
Chapter 5: Roots and Soils	50	50	100	9/22
Chapter 6: Stems	50	50	100	9/29
Chapter 7: Leaves	50	50	100	10/6
<b>Fall Break</b>				10/7-12
Chapter 8: Flowers, Fruits, and Seeds	50	50	100	10/20
Chapter 9: Water in Plants	50	50	100	10/27
Chapter 10: Plant Metabolism	50	50	100	11/3
Chapter 11: Growth	50	50	100	11/10
Chapter 12: Meiosis and Alternation of Generations	50	50	100	11/17
Chapter 13: Genetics	50	50	100	11/24
Chapter 16: Plant Names and Classification	50	50	100	12/1
Chapter 23: Seed Plants- Angiosperms	50	50	100	12/8
<b>Final Exam</b>			<b>300</b>	12/10-12

Lab Activities (Required):

Introduction: Scientific Method	100	8/25
Lab 1: Cells	200	9/8
Lab 2: Photosynthesis	200	9/22
Lab 3: Water and pH	200	10/6
Lab 4: Roots	200	10/20
Lab 5: Stems and leaves	200	10/27
Lab 6: Flowers and Fruits	200	11/3
Lab 7: DNA, RNA, and Protein Synthesis	200	11/17
Lab 8: Genetics, Plant Breeding, and Selection	200	12/1

*Comprehensive Pre-test/Post-test Assessment*

There is a pretest to take during the first week of the semester and a post-test to take the final week of the semester. 50 Extra credit points will be awarded if you take BOTH the pre-test and post-test.

**Grading**

Students will be expected to demonstrate they have completed the class activities listed above. Final grades are curved from the highest score, based upon the following:

Letter Grade	%
A+	98-100
A	92-97
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	70-76
D	60-69
F	<60

### **Textbook Assignments**

There are homework study questions, and quizzes for each of the chapters we cover (see schedule on previous page). The questions on the quizzes are mostly multiple choice, matching, true or false, and completing answers. You can attempt the homework assignments as many times as you like—I will keep the highest grade. The questions are randomized for each attempt. You may attempt the quizzes twice (I will keep the highest grade). All assignments need to be completed by the due date listed. (See late policy on previous page.)

### **Lab Reports**

Lab activities are found on the AL102L Moodle. Each student will pick up a lab kit with the basic equipment to complete each lab, though many labs also require that you purchase fresh produce. Be sure to read the list of materials a few days prior to starting the lab so that you can purchase any materials. (Note: for the photosynthesis lab, you will need a desk lamp with an incandescent bulb (not LED or compact florescent). If you need to borrow a lamp or buy a light bulb, be sure to make preparations ahead of time.)

For each lab, you will need to write up a lab report and submit on Moodle. Instructions for this are found in the introduction lab. Be sure to note the grading rubric so that you can include all essential parts of your lab write up.

### **Final Exam**

The questions in the exam are from a similar pool of questions used in the quizzes. You will have only one attempt to take the final exam.

### **Plagiarism**

The U.O.G. Student Handbook defines plagiarism as:

The term “plagiarism” includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

Incidences of plagiarism will not be tolerated. Any student found to have committed this type of misconduct is subject to the disciplinary sanctions outlined in section T.2. of the U.O.G. Student Handbook. You will be expected to demonstrate clearly that you are doing the lab activities. You are permitted to have a lab partner, but you need to include in your lab reports the name of your lab partner. While you are permitted to share data and results of the experiments, you are not permitted to submit your partner’s lab report as your own. You are also not permitted to copy lab reports from the internet.

### **Academic Dishonesty**

Professional and ethical conduct is expected at all times. Unethical conduct includes any form of cheating, including plagiarism. The term “**cheating**” includes, but is not limited to: (1) use of any unauthorized assistance in taking quizzes, tests, or examinations, e.g., looking at other students’ answers, using crib notes (including electronic), getting information from another person via any kind of communication; (2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; or (3) the acquisition, without permission, of tests or other academic material belonging to a member of the University faculty or staff. If you need to use an electronic translator, you must discuss this with me in advance. All assignments and tests must be your own work. Answers you write on the tests must come only from in your head or the information supplied in the test papers; anything else is cheating. Any evidence of cheating will result in a “0”

for that assignments and/or exam or possibly an “F” for the entire course – final decision to be determined by me, the course instructor.

**Tobacco-Free/Smoke-Free Campus**

UOG is a tobacco-free campus. Thank you for not using tobacco products on campus, and for helping make UOG a healthy learning and living environment. For more information visit: <http://www.uog.edu/smoke-free-uog>

**Family Educational Rights And Privacy Act (Ferpa)**

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights for students, parents and school officials can be viewed at: <http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html>

**Special Accommodations (Ada)**

If you are a student with a special need who will require an accommodation(s) to participate in this course, please contact me privately to discuss your specific needs. You will need to provide me with documentation concerning your need(s) for accommodation(s) from the EEO/ADA Office. If you have not registered with the EEO/ADA Office, you should do so immediately at 735-2244/2971/2243 (TTY) to coordinate your accommodation request. For more information visit: <http://www.uog.edu/administration/office-of-the-president/eeoadatitle-ix-office>

**Changes to Course Activities**

Course activities may change. The procedures for doing the various activities and the activities may change. You will be informed of these changes in the News Forum.