



Instructor:

Dr. Frank R. Hensley

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Office: Hederman Science Center 206 & 207

Office Hours: 10:00-11:00 MWF, other times by appointment

Meeting time: Mondays 1:30-4:30 PM in Hederman Science room 110

1. Course Prefix, Number, Name and Credit for Lecture or Laboratory hours.

BIO 106 Plants and People Laboratory, Credit 1 sem. hr.

2. Prerequisites for course.

Corequisite or prerequisite: BIO 105.

3. Course description from the university catalog.

Laboratory three hours a week. A laboratory investigation of the plants used in human societies throughout the world. This course will not count toward a major or minor in biology. This course combined with BIO 105 will meet the core curriculum four-hour laboratory science course requirement.

4. Rationale for Course.

Plants and People Laboratory is designed for non-science majors. Its purpose is to provide hands-on learning of scientific practices and principles. This is consistent with the Mississippi College mission, which includes stimulating “the intellectual development of its students through the liberal arts and sciences.”

5. Student objectives and outcomes. Students in this course will...

- Summarize the steps of the scientific method.
- Demonstrate their ability to work monohybrid and dihybrid crosses
- Demonstrate their ability to use χ^2 analysis to determine how well the experimental data from monohybrid and dihybrid crosses fits the expected phenotypic ratios.
- Explain what a seed is and describe its parts.
- Explain hypogean and epigeal germination.
- Describe the difference between monocot and dicot seed and seedlings.
- Summarize the structure of vegetative shoot and root apices.
- Compare and contrast the structure of monocot and dicot roots.
- Compare and contrast the structure of monocot and dicot stems.
- Compare and contrast the structure of monocot and dicot leaves.
- Explain what a flower being complete, incomplete, perfect, or imperfect means.
- Describe and explain the structure of a composite flower
- Define a fruit.
- Define and know examples of simple, aggregate, and multiple fruits

6. Academic Integrity Statement.

Mississippi College students are expected to be scrupulously honest. Dishonesty, such as cheating or plagiarism, or furnishing false information, including forgery, alteration or misuse of University documents, records or identification, will be regarded as a serious offense subject to severe penalty, including, but not limited to, loss of credit and possible dismissal. See the *Mississippi College Student Handbook* or Policy 2.19 for specific information regarding penalties associated with dishonest behavior at Mississippi College. Copies of the *Mississippi College Student Handbook* are available on the web and in the Office of the Vice President for Enrollment Management and Student Affairs, Nelson 313. Copies of policies are available on the Mississippi College web site.

7. Outline of topics to be covered in course.

- Seeds, Seedlings, and Germination
- Scientific Method & Experimentation
- Mendelian Genetics
- χ^2 Analysis of frequency data
- Vegetative Shoot and Root Apices
- Roots
- Stems
- Leaves
- Flowers (Monocot, Dicot, and Composite Flowers)
- Fruits (Berries, Aggregate & Multiple Fruits)

8. Methods of Instruction

Traditional lectures are supplemented with dissection, microscopic study, experiments, data collection and analysis, and class presentations. Students are required to engage with classmates to answer questions in written and oral formats.

9. Required Practices

Successful students will read assigned laboratory manual sections with attention to detail, and ask questions both in class and electronically. Taking notes while reading and during class sessions is a key practice for engaging the concepts. Students will engage in small groups to discuss and analyze information, and then write and speak to summarize their efforts. Regular independent study outside of class will be essential preparation for quizzes and exams.

10. Instructional Materials

Required

Plants and People Laboratory Manual. Fall 2013. Theodore E. Snazelle. (Available for purchase in the Biology Office, H104.)

11. Methods of evaluating student progress.

Students will be given a laboratory quiz most sessions (8 quizzes, 10 points each) based on material presented in the previous laboratory session. A midterm laboratory examination worth 30 points will be given at about or about the sixth laboratory session. A final laboratory examination (covers only material since the midterm exam) worth 30 points will

be given at or about the last laboratory session. Students will work with a partner to make a class presentation using PowerPoint worth 40 points. One Extra Credit option worth 10 points is available. The percentage of the sum of the total of the quizzes, midterm examination, PowerPoint, and final laboratory examination scores (plus extra credit points) the student has made will be compared with the grading scale to determine the letter grade for the course, assuming the student doesn't have excessive absences.

- Quizzes = 80
- Exam 1 = 30
- Exam 2 = 30
- PowerPoint = 40
- Total = 180 possible (plus 10 extra credit)

12. Accommodations

Special accommodations at Student Counseling Services:

In order for a student to receive disability accommodations under Section 504 of the Americans with Disabilities Act, he or she must schedule an individual meeting with the Director of Student Counseling Services **immediately upon recognition of their disability** (if their disability is known they must come in before the semester begins or make an appointment **immediately** upon receipt of their syllabi for the new semester). The student must bring with them written documentation from a medical physician and/or licensed clinician that verifies their disability. If the student has received prior accommodations, they must bring written documentation of those accommodations (example Individualized Education Plan from the school system). Documentation must be current (**within 3 years**). The student must meet with SCS **face-to face** and also attend two (2) additional follow up meetings (one mid semester before or after midterm examinations and the last one at the end of the semester). Please note that the student may also schedule additional meetings as needed for support through SCS as they work with their professor throughout the semester. Note: Students must come in **each semester** to complete their Individualized Accommodation Plan (example: MC student completes fall semester IAP plan and even if student is a continuing student for the spring semester they must come in again to complete their spring semester IAP plan).

Student Counseling Services is located in Alumni Hall Room #4 or they may be contacted via email at: mbryant@mc.edu or rward@mc.edu or by phone at 601-925-7791.

13. Exam schedule.

Midterm Exam..... Monday, October 21, 2013
Final Exam.....Monday, December 2, 2013

14. Grading scale.

Minimum percentages required to earn letter grades are as follows:

A= 90-100%	B = 80-89%	C = 70-79%	D = 60-69%	F < 60%
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Final percentages are rounded to the nearest whole percentage. For example, 89.50% rounds to 90% and earns an A, but 89.49% rounds down to 89% and earns a B.

15. Other:

a. Attendance/Participation Regulations

Class attendance/participation is an essential part of university/graduate education, and students are expected to attend/participate regularly and punctually all classes and laboratories for which they are registered. Cumulative absences/non participation may result in a lowered grade or loss of credit for the course. Tardiness is also subject to penalty. Although some specific requirements may vary according to the nature and structure of the course, the following guidelines summarize institutional policy:

- Class attendance/participation is required, and accurate records are kept.
- A student receives a grade of F in any course immediately upon accumulating the following number of absences in that class: 4 in semester classes meeting 1 times per week. Any exception to this rule, granted only in extraordinary circumstances, must be approved by the Dean's Committee on Absences.
- For lesser number of absences/non participation, the student should expect a lowered grade in the course, with the maximum penalty of one letter grade for each week of absences (in a semester) or the equivalent. The calculation of the semester grade, including any penalty for absences, is the responsibility of the faculty member and may vary according to the nature of the course and the grading scale used. In some classes points will be deducted from the semester grade for unexcused absences; in others, the penalty may be built into the grading scale by means of frequent pop quizzes, grades for class participation and the like.
 - See the Evaluation policy above for penalties for this course
- The faculty member will excuse a limited number of absences/non participation for serious illness, for field trips, for representing the University,

and perhaps for other emergency reasons that the faculty member finds justifiable. Documentation is required for an absence to be excused.

- Whether an absence/non participation is excused or not, the student who is absent misses some learning that takes place in the class. Naturally, the faculty member is more inclined to assist the student in making up the work if the absence was excused. However, the responsibility for work missed rests entirely with the student.
- A student registering late will be charged for all absences/nonparticipation occurring prior to reporting to class, although these may be treated as excused absences.

b. Policy on make-up quizzes and examinations

For excused absences, makeup exams must be taken within 1 week of the absence, or result in a grade of zero points. Makeup quizzes are administered at the final exam, 2 December 2013. Quizzes and exams may be made up only if the absence was excused.

c. Important college and course dates

Monday	9/2/2013	Labor Day
Thursday	9/5/2013	LAST DAY TO DROP A FULL SEMESTER CLASS WITH 100% TUITION ONLY REFUND
Monday	9/9/2013	Effect of Heat on Germination
Monday	9/16/2013	Mendelian Genetics & Chi-Square Analysis; Presentation topic due
Monday	9/23/2013	Germination, part 2. Seeds & Seedlings
Monday	9/30/2013	Vegetative Root and Shoot Apices
Monday	10/7/2013	Fall Break
Tuesday	10/8/2013	Fall Break
Monday	10/14/2013	Roots
Wednesday	10/16/2013	MIDTERM
Monday	10/21/2013	Midterm Exam
Friday	10/25/2013	Last Day to Drop
Monday	10/28/2013	Stems & Leaves; Powerpoints begin
Monday	11/4/2013	Flowers I - Peruvian Lily
Monday	11/11/2013	Flowers II - Composites
Monday	11/18/2013	Berries; Extra Credit Due
Monday	11/25/2013	Aggregate & Multiple Fruits
Wednesday	11/27/2013	Thanksgiving
Thursday	11/28/2013	Thanksgiving

Friday	11/29/2013	Thanksgiving
Monday	12/2/2013	Final Exam 1:30
Monday	12/9/2013	Final Powerpoints (as needed)
Thursday	12/12/2013	Study Day

d. Other course expectations

- **E-mail:** Like Mississippi College, I will only make contact with you at your _____@mc.edu address. Check your e-mail frequently.
- As a courtesy to all, please limit the use of electronic devices during class to actual note taking on laptops unless specifically directed otherwise.
- During the semester this course is taught, the professor reserves the right to make any changes in the syllabus deemed appropriate or necessary, as governed by Mississippi College policies.
- **Exam Policies:** During exams students will not but permitted to touch or have visible any electronic devices (no cell phones, tablets, laptops, ear buds, headphones, Bluetooth devices etc.). Neither baseball caps nor any other headwear that obscures the face or eyes are permitted during exams. No bathroom breaks are permitted – if a student must excuse themselves from the room, then they must turn in their exam regardless of whether it is complete or not. Exams may require use of a #2 pencil, and students are responsible for providing their own pencil. Pencils may be purchased in the Biology office.