

**Biology 105 A**  
**Plants and People**  
**Spring 2012**

**Credit**, 3 semester hours.

**Prerequisites:** None.

**Catalog Course Description:**

Lecture three hours a week.

A survey of the uses of plants in human societies throughout the world. This course will not count toward a major or minor in biology although it will count as a nonlaboratory core science course for nonscience majors. This course taken concurrently with BIO 106 will meet the core curriculum four hour laboratory course requirement.

**Lecture Schedule:** MWF 11:00 – 11:50 a.m. **Room:** H101

**Instructor:** Theodore E. Snazelle, Ph.D.

Office - 109 Hederman Science Building

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**\*Office Hours:** MF, 9:00 – 10:50 a.m.

M, 2:40 – 4:30 p.m.

TR, 10:00 a.m. – 12:10 p.m.

\*other hours by appointment

**Learning Objectives:** Students in this course will:

1. explain the attributes of life and the major groups of organisms.
2. summarize the chemistry of life.
3. explain plant cell structure and cell division.
4. summarize the basic morphological and anatomical features and life history of flowering plants.
5. list the centers of origin of economically important plants and state how some of these plants formed the basis of agriculture in different human cultures.
6. describe genetically-modified plants (GM plants) such as “Golden Rice” and “Bt Corn”
7. summarize plants as a source of medicines and drugs of abuse.
8. explain the beverage plants coffee and tea.
9. summarize both the history of the opium poppy and describe its role as a source of both legal and illicit drugs
10. describe coca and kola and explain their relationship to Coca-Cola
11. explain the banana and pineapple as parthenocarpic fruits.

12. summarize cotton as a plant and crop and describe its role in slavery
13. describe the vanilla plant explain how vanilla beans are used to make extract of vanilla
14. describe the legumes soybeans and peanuts and explain their importance as food for humans.
15. describe the world's largest flower *Rafflesia arnoldii* and explain its life cycle.
16. summarize selected plants of the Bible and describe their uses and symbolism.

**Instructional Materials:**

*Plants and Society*. 6<sup>th</sup> ed. (2012). Estelle Levitin and Kristin McMahon. McGraw Hill.

*Plants and People Lecture Guide*. 2011 - 2012. Theodore E. Snazelle. (Available for purchase in the Biology Office, H104 for \$5.00)

**Lecture Topics:**

An Introduction to Life .....	Chap 1:6 – 8
Chemistry of Life .....	Appendix, p. 489 – 491
	Chap 1:8-15
Plant Cell Structure and Cell Division.....	Chap 2:16 - 27
Energy and Life.....	Chap 4:55 - 68
Introduction to the Flowering Plants.....	Chap. 3:28 - 46
	Chap. 5:69 - 83
	Chap. 6:84 – 98
Cereals: I - Wheat and the Beginning of Western Civilization.....	Chap. 11:172 - 182
	Chap. 12:183 - 185
Cereals: II - Rice and the Beginning of Far Eastern Civilization.....	Chap. 11:178
	Chap. 12:195 - 197
	Chap. 15:253
Cereals: III - Maize and the Beginning of New World Civilization .....	Chap. 11:179 - 180
	Chap. 12:189 - 195
	Chap. 15:252 - 253
The Incredible Potato .....	Chap. 14:218 - 226
	Chap. 23:417 - 418
Soybeans - The Cinderella Crop .....	Chap. 13:206, 211 - 214
The Marvelous Peanut .....	Chap 13:210 - 211
Chocolate - Food of the Gods .....	Chap. 16:270-275
Coffee - The Bonanza Bean .....	Chap. 16:261-267
Tea - a Cup of Ch'a.....	Chap. 16:264-270
Amaranth: The Once and Future Crop.....	Chap. 15:244 - 245
King Cotton.....	Chap. 18:300 - 302
Plants of the Bible	

**\*\*Important Dates:**

Martin Luther King Holiday – No Class, January 16, 2012  
Exam #1A- Wednesday, February 1, 2012  
Exam #1B – Wednesday, February 29, 2012  
Exam #2 – Wednesday, March 7, 2012  
Spring Break – *Friday night* through Sunday, March 9 – 18, 2012  
Last Day to Drop a Class, Friday, March 23, 2012  
Exam #3 - Wednesday, April 11, 2012  
Easter Holiday, Monday, April 9, 2012  
Last Day of Class – Wednesday, April 25, 2012  
Exam #4 - Friday, April 27, 2012, 11:00 a.m. – 1:00 p.m.

\*\*With the exception of Exam #4, all exam dates are tentative.

**E-mail:** Like Mississippi College, I will only make contact with you at your [\\_\\_\\_\\_\\_@mc.edu](mailto:_____@mc.edu) address. Check your e-mail frequently.

**Student Evaluation Methods and Grading Scale:**

Four unit lecture exams will be given. During the semester, eight 10-point quizzes will be given. The two low quiz scores will be dropped. *A missed quiz is a dropped quiz.* Exams will be largely objective in format, e.g. multiple choice, true-false, etc. Quizzes will be largely short answer. Your final grade for the course will be determined by adding your four exam scores plus your best six quiz scores together, divide by the total points possible, and then multiply the decimal fraction by 100; the percentage you obtain can then be compared with the grading scale to determine your letter grade. The grading scale is as follows:

90-100%	A
80-89%	B
70-79%	C
60-69%	D
<60%	F

**Attendance:** See the Mississippi College Undergraduate Catalog for the University’s attendance policy, i.e. 8 absences (excused or unexcused) in a semester class meeting 2 times a week or 12 absences (excused or unexcused) in a class meeting 3 times a week, will result in the student receiving an “F” for the course.

**Academic Honesty Statement:** See the Mississippi College Undergraduate Catalog or the Mississippi College Graduate Catalog for what the University considers to be academically dishonest, the student’s responsibility and consequences for academic dishonesty.

**Regarding Disabilities:** If you are a student who needs special accommodations due to learning, physical, physiological, or other disabilities, please contact Dr. Morgan Bryant, Director, 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

