

**Biology 103 – Plants and Peoples**  
Spring 2011

**Lecture:** T & Th 9:15 – 10:35 am (Shiley Technology 130)

**Instructor:** Marcelle Darby

**Office:** Shiley Technology 433

**Office Hours:** **T & Th** 11 am – 12:00 pm and 1 – 2 pm (I also welcome appointments)

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**Required Textbook:** Levetin, E. and McMahon, K. (2008). *Plants & Society*, 5th Edition. NY: McGraw-Hill.

**Course Description**

Biology 103 is a one semester course about humans and their knowledge, use and abuses of plants. The biology of plants, selected protists, and fungi are considered from a scientific viewpoint; discussion draws on topics of ecology, evolution, anatomy, morphology, physiology, taxonomy and, biotechnology. The history, means, and modes of resource utilization and agriculture are also considered including the exploitation of plants for fibers, foods, beverages, medicinals and other ends. Three hours of lecture weekly.

**Goal Statement** (from Natural Sciences “Core” category)

Students should be able to:

1. understand basic concepts of the natural sciences;
2. appreciate the process by which knowledge in the natural sciences is advanced;
3. distinguish between sound science and unsound science;
4. use rigorous reasoning and the scientific method to test hypotheses;
5. show familiarity with tools, techniques, and instrumentation used in the natural sciences;

**Course Learning Outcomes for Biology 103 that Conform to the Goal**

1. Formulate, test and evaluate hypotheses relating to the biology of plants.  
(Goals 2, 3 & 4)
2. Evaluate media messages (secondary sources and advertising) for the validity of their claims based on evidence criteria, criteria for valid hypothesis testing, and general acceptance in the scientific community.  
(Goals 1, 2 & 3)
3. Explain the relationships between form and function at various levels of biological organization.  
(Goals 1 & 5)
4. Relate the unity and diversity of plant life to genetics and evolution.  
(Goal 1)
5. Identify the major ways that plants and plant products contribute to human life and how humans modify plants and the environment. (Goals 1 & 5)
6. Apply scientific knowledge to make socially responsible decisions that relate to the health of the planet and its inhabitants.  
(Goals 1 & 4)

## Graded Materials

Midterm Exam	100
Final Cumulative Exam	150
Community Service Learning Project	100
Assignments & Quizzes (in class and homework)	100
Attendance/Contribution	25
<b>Total</b>	<b>475</b>

## Grading Scale

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

## Academic Integrity

I expect you to strictly observe USD rules regarding academic honesty which include:

- abstaining from cheating on exams and quizzes
- properly referencing published written and electronic material
- submitting work that is your own (You will find useful information regarding plagiarism on Blackboard. If you have any questions regarding what behavior is proper, including what constitutes plagiarism, please ask me or a reference librarian.)

## Attendance and Class Contribution

You can easily earn all of the attendance and contribution credits by attending and actively participating in all lectures and the Community Service Learning Project (Fresh Screening & Tabling). Your active involvement is the basis of this course. Behaviors that count as positive contributions include:

- showing up
- answering questions
- asking questions about material being presented in class or material in the text
- making comments that might include relating a personal experience, sharing relevant content from another class, or responding to comments from other students
- contributing within small groups toward the successful completion of class activities

Faithful attendance and contribution will likely benefit your grade for all other aspects of the course (exams, quizzes, and assignments). Exam dates are posted on the lecture schedule. Tell your folks about them, before they purchase those plane tickets. Together they constitute 250 points, or a bit over 30% of your grade. Now I realize that life has a way of getting in the way. Let me know, as early as possible and preferably in person, if you have to be absent. Also, for any course responsibility you miss, it is up to you to request handouts and assignments from me during office hours or download them from Blackboard when available.

## Interested in increasing your chances of doing well in biology?

- Start your studying today, and study every day until May 19. This will give you the time you need to learn this stuff.
- Attend all lectures.
- ***Be Prepared:*** Read the text chapter before coming to lecture.
- Take extensive notes during lecture.
- Review your lecture notes, rewrite them, and see me if you have gaps.
- Answer the chapter questions and check your understanding of key concepts.
- Form a study group.
- Ask questions in class.
- Frequent my office hours to work on concepts for which you need clarification.
- Help create a collaborative learning environment.

## **Plants and Peoples (Biol 103) Spring 2011 Tentative Lecture Topic Schedule\***

<b>Date</b>	<b>Topic</b>	<b>Text Chapter</b>	
January	25	Beginning Matters Evaluating Secondary Sources (pretest)	Syllabus Supplement
	27	Scientific Method	1, Supplement
February	1	Experimental Design	Supplement
	3	Evaluating Secondary Sources: Line of Reasoning Model Locating Valid Secondary Sources	Supplement
	8	Evaluating Secondary Sources (post-test) Important Inorganic and Biological Molecules	1
	10	Human Nutrition	10
	15	The Plant Cell: membranes, transport, structure & function	2
	17	The Plant Body: tissues and organs	3
	22	Transpiration and Translocation of Sugar	4
	24	Plant Physiology: Metabolism & Energy Basics	4
March	1	Cellular Respiration and Photosynthesis	4
	3	Plant Ecology: Energy Flow, Nutrient Cycling, and Global Warming	26
	8	Plant Ecology: Biomes and Conservation	
	10	Exam 1	(Ch. 1, 2, 3, 4, 10, 26)

**Spring Break March 14-18**

	22	Genetics	7
	24	Origins of Agriculture Types of Agriculture	11 supplements
	29	Film: <i>Fresh</i>	
	31	Sustainable Agricultural Practices	15, supplements
April	5	Flowering Plant Life Cycle	5 & 6
	7	Plant Systematics and Evolution	8
	12	Plant Diversity	9
	14	Medicinal Plants	19
	19	Medicinal Plants <b><i>Fresh Screening UC Forum A 6-8 PM</i></b>	19
<b>Easter Break April 21-25</b>			
	26	Poisonous and Allergy Plants	21
	27*	<b><i>Fresh Screening UC Forum A noon-2 PM</i></b> *not a class day	
	28	Stimulating Beverages	16
May	3	Psychoactive Plants	20
	5	Fermentation: Beverages from Fungi	24
	10	Review	
	<b>19</b>	<b>Final Exam 8:00AM – 10:00 AM (ST 130)</b>	<b>75 points Midterm #2</b> <b>75 points Cumulative Final</b>

\* This schedule is subject to change. Any changes will be announced during lecture.