

General Biology: Plants and People

Spring 2007

Lecture Schedule-At-A-Glance, with Assigned Readings

Instructor: Dr. Terry O'Brien (201H Science Building; obrien@rowan.edu)

Class Meetings - 252 Science Building

Tuesdays and Fridays, 10:50 a.m. - 12:05 p.m.

Thursdays, 10:50 - 1:30 p.m.

Unless otherwise stated, all readings are from:

**Estelle Levetin and Karen McMahon. 2005 (2006). Plants and Society (4th edition).
McGraw-Hill Publishers.**

Part 1: Plant Structure, Development and Reproduction; Human Nutrition

	<u>Topic</u>	<u>Reading</u>
Jan. 16	What is this course? Course mechanics What are plants? How do people use plants?	Chapter 1: 1-8
Jan. 18 (Lab)	How Hot is That Hot Pepper? Introduction to Microscopy	Chapter 17: 293-294 Handout
Jan. 19	Plant Chemistry and Human Nutrition	Chapter 1: 9; 11-18 Chapter 10: 158-167; 174-179
Jan. 23	Plant Chemistry and Human Nutrition Structure and Function of Plant Cells	Chapter 10: 158-167; 174-179 Chapter 2: 20-27
Jan. 25 (Lab)	Soap from Plant Lipids Plant Dyes Quiz 1	Handout A Closer Look 17.2 (pp. 300-301)
Jan. 26	Structure and Function of Plant Cells (Concluded) Plant Tissues and Organs	Chapter 3: 32-49
Jan. 30	Plant Tissues and Organs (Concluded) Water Movement and Sugar Translocation	Chapter 3: 32-49 Chapter 4: 51-56 A Closer Look 4.2 (pp. 57-59)
Feb. 1 (Lab)	Plant Cells and Tissues Introduction to the Plant Body	Handout

Feb. 2	Photosynthesis	Chapter 4: 60-65
Feb. 6	Plant Life Cycles and Flowers	Chapter 5: 73-78; Figure 5.6; 81-88
Feb. 8 (Lab)	Flowers, Inside and Out Questions and Answers (Exam I)	
Feb. 9	Exam I (covers Jan. 16 - Feb. 2)	
Feb. 13	Fruits and Seeds	Chapter 6: 89-103
Feb. 15 (Lab)	Fruits and Seeds Hydroponics	Handout
Feb. 16	Tour of Plant Diversity	Chapter 9: 140-155
Feb. 20	Tour of Plant Diversity (Concluded)	Chapter 9: 140-155
Feb. 22 (Lab)	Introduction to Plant Propagation Quiz 2	Handout

Part 2: Origins and Future of Plant Crops

Feb. 23	Origins of Agriculture	Chapter 11: 182-189
Feb. 27	Cereal Grains; Grasses	Chapter 12: 192-209
Mar. 1 (Lab)	Plants on Your Plate and Palate (Plants and Human Nutrition) Questions and Answers (Exam 2)	Handout
Mar. 2	Exam II (covers Feb. 6 - Mar. 1)	
Mar. 6	Legumes	Chapter 13: 211-224
Mar. 8 (Lab)	Fertilizer Fieldtrip (to The Espoma Company, in Millville)	
Mar. 9	Starchy Staples (Storage Roots and Shoots)	Chapter 14: 226-239

----- **SPRING BREAK MARCH 12-16** -----

Mar. 20	The Future of Food	Chapter 15: 242-253
Mar. 22 (Lab)	T.B.A.	
Mar. 23	Genetically Engineered Organisms; Organic Foods	Chapter 15: 253-265

Part 3: Another World: The Fungi

Mar. 27	Biology of Fungi Plant Diseases	Chapter 23: 408-410; 413-433
Mar. 29 (Lab)	Alcoholic Fermentation, Wine and Cider Fungus Among Us Quiz 3	Handout
Mar. 30	Alcoholic Fermentation and Alcoholic Beverages	Chapter 24: 435-444; 448-449
Apr. 3	Fungi and Human Health	Chapter 24: 450-452 Chapter 25: 454-469
Apr. 5 (Lab)	Wine and Cider Results Questions and Answers (Exam 3)	
Apr. 6	No Class (Good Friday)	
Apr. 10	Exam III (covers Mar. 6 - Apr. 5)	

Part 4: People and Phytochemicals

Apr. 12 (Lab)	Spices and Herbs Why Do We Use Spices?	Chapter 17: 285-299 Handout
Apr. 13	Caffeine and Other Plant Stimulants	Chapter 16: 269-282
Apr. 17	Medicines From Plants Psychoactive Plants	Chapter 19: 330-348 Chapter 20: 351-368
Apr. 19 (Lab)	Presentations of Individual Projects	
Apr. 20	Presentations of Individual Projects	

Part 5: People, Wood and Fibers

Apr. 24	Wood and Plant Fibers	Chapter 18: 303-327
Apr. 26 (Lab)	Wood, Bark and Products From Them	Handout
Apr. 27	Questions and Answers (Final Exam)	
May 1 (Tuesday)	FINAL EXAM: 12:30 p.m. – 2:30 p.m. Location: 252 Science Building Covers April 12 – April 27 and major concepts from the course	