

Biology 329: Environmental Biology of Plants

Course Syllabus

Spring 2007

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Office: Goulet Science Building, Room 2324

Office hours: Monday and Wednesday 10:30 – 11:30am; other by appointment

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Course description

Biology 329 is an upper-division course that examines plant biology across a range of scales, from cells that compose individuals, to populations, communities, and ecosystems. Lecture will cover topics such as plant anatomy and physiology, mating systems and pollination, competition, plant-animal interactions, and conservation. In laboratory, students will explore life-history strategies, as well as physiological and anatomical adaptations that enable plants to exist within a wide range of environmental conditions.

Course meeting times

Lecture:	T, R	10:00 – 11:15 am	Goulet 3101
Lab:	R	1:30 – 4:20 am	Goulet 1328

Required texts/supplies

- Raven, P.H., R.F. Evert, and S.E. Eichhorn. 2005. *Biology of Plants*, 7th edition. W.H. Freeman and Company Publishers
- Evert, R.F., S.E. Eichhorn, and J.B. Perry. 2005. *Laboratory Topics in Botany*, 7th edition. W.H. Freeman and Company Publishers
- Composition notebook for laboratory data and notes

Attendance Policy

Attendance at lecture and lab is mandatory, and excessive absences will affect your final grade. An 'excused' absence is one documented by notification of the Dean's Office. All other absences are considered 'unexcused'. For every unexcused absence beyond the number permitted (see below) your final course grade will be reduced by 5%. Keep in mind that **work missed (e.g. quiz or exam) resulting from any unexcused absence may not be made up.**

- For excused absences, contact me in advance so that the make-up option may be arranged.
- You will be permitted **a total of 2** unexcused absences from lectures.
- You will be permitted **1** unexcused absence from lab.

Athletics and Attendance

It is my goal that student athletes achieve all their athletic goals in addition to attending all their classes and labs. For this to happen it is important that you notify me of any scheduling conflict *in advance* and *in person* so that we can make alternate arrangements when necessary. Student athletes must submit to me a signed '**Class Conflicts for Student Athletes**' form or they will not be excused from class.

Semester Grade:

Grade	%	Grade	%	Points Distribution	
A	>93	C	74-76	Lecture exams ^a (3 @ 75 points)	225
A-	90-93	C-	70-73	Quizzes ^b (4 @ 10 points)	40
B+	87-89	D+	67-69	Lab practical ^c	50
B	84-86	D	64-66	Lab notebook ^d	10
B-	80-83	D-	60-63	Independent project and paper ^e	75
C+	77-79	E	<60	Final exam ^f	100
				Total Points	500

Note: No extra credit work will be assigned or accepted.

^aExams will include any of the following: multiple choice, matching, true/false, fill-in-the-blank, short answer, and essay questions. Only the final exam will be cumulative.

^bQuizzes will be given during the first part of lecture during select weeks (see course schedule). Quiz questions will be based on concepts covered in both lecture and lab. The quizzes are not cumulative and will only cover material since the previous quiz.

^cLab practical will be based on laboratory information only. A practical differs from quizzes by emphasizing the hands-on nature of laboratory work. Whenever possible, practical questions will be based on 'real life' biological specimens from lab exercises.

^dLab notebooks will be kept as a journal of the organisms and concepts examined during laboratory exercises (more explanation during first lab).

^eIndependent projects will be conducted during the semester by working in groups of 3-5 students. Results from these projects will be shared with the class during the last lab period as a short group presentation (15 pts) and as an individually written report (60 pts).

^fFinal exam for Biology 329 will be held on Friday, May 4 at 9:00am. Approximately one-third of the exam (33 pts) will be based on new material and two-thirds (67 pts) will be cumulative, for a total of 100 pts.

Academic honesty

The standards of academic honesty are very high at Saint Anselm, and it is recommended that you review the policy set forth in your 2006-07 Course Catalogue (pp. 26-28). Depending on the severity of the infraction cases of cheating or plagiarism may result in a failing grade of the assignment/exam in question, failing grade in the course, or expulsion.

Cell phone policy

Cell phones, pagers, etc. are an unnecessary distraction and are not to be used in lecture or laboratory classes. Furthermore, because camera phones and text messaging have been used to cheat in university courses, handling a cell phone during an exam will be viewed as cheating. In such an instance, you will be escorted from the room and given a failing grade on the exam.

Course Schedule

Date:	Lecture Topic	Text Chps.	Laboratory
Jan. 16	Botany: An introduction	1	No lab - First week
Jan. 18	Biology of the Plant Cell	2-4	
Jan. 23	Biology of the Plant Cell	2-4	Scientific Method
Jan. 25	Biology of the Plant Cell	2-4	Project design
Jan. 30: Quiz 1	Energetics	5-7	Project setup
Feb. 1	Energetics (Respiration)	5-7	Intro & Methods due
Feb. 6	Energetics (Photosynthesis)	5-7	The plant cell
Feb. 8	Exam 1 – Thursday, February 8		
Feb. 13	Genetics and Evolution	8-11	Photosynthesis
Feb. 15	Genetics and Evolution	8-11	
Feb. 20	Genetics and Evolution	8-11	Green algae, Fungi, and Lichens*
Feb. 22: Quiz 2	Genetics and Evolution	8-11	
Feb. 27	Plant Diversity	12-21	Mosses and Ferns*
Mar. 1	Plant Diversity	12-21	
Mar. 6	Mid-semester recess – no classes		
Mar. 8			
Mar. 13	Plant Diversity	12-21	Seed Plants*
Mar. 15	Exam 2 – Thursday, March 15		
Mar. 20	Plant Diversity	12-21	Plant anatomy*
Mar. 22	Plant Diversity	12-21	
Mar. 27	Angiosperm Structure and Development	22-26	Project data analysis
Mar. 29: Quiz 3	Angiosperm Structure and Development	22-26	
Apr. 3	Angiosperm Structure and Development	22-26	No lab - Easter
Apr. 5: No class	(No class - Easter recess)		
Apr. 10	Angiosperm Structure and Development	22-26	Lab practical (only labs with *)
Apr. 12	Physiology of Seed Plants	27-30	
Apr. 17	Exam 3 – Tuesday, April 17		Project presentations
Apr. 19	Physiology of Seed Plants	27-30	
Apr. 24	Physiology of Seed Plants	27-30	No lab - Final week
Apr. 26: Quiz 4	Physiology of Seed Plants	27-30	
May 1	Review		
May 4	Final Exam (Friday, May 4 at 9:00am)		