

2015

# Biology 109 Introduction to Plant Biology Fall 2015

Mike Retzer

*Parkland College*, [MRetzer@parkland.edu](mailto:MRetzer@parkland.edu)

---

## Recommended Citation

Retzer, Mike, "Biology 109 Introduction to Plant Biology Fall 2015" (2015). *Biology Courses*. Paper 35.  
[http://spark.parkland.edu/bio\\_course/35](http://spark.parkland.edu/bio_course/35)

Open access to this Course Materials is brought to you by Parkland College's institutional repository, [SPARK: Scholarship at Parkland](#). For more information, please contact [spark@parkland.edu](mailto:spark@parkland.edu).

SYLLABUS  
BIOLOGY 109  
Fall SEMESTER, 2015  
THIS SYLLABUS IS SUBJECT TO CHANGE BY THE INSTRUCTOR

Instructor: Mike Retzer, Ph.D.  
Office: Room L-240  
Mon 3-4 pm; Tue 1-2 pm; and by arrangement

Email: [mretzer@parkland.edu](mailto:mretzer@parkland.edu)

About this course:

(IAI L1 901L) Introduction to the diversity, structure and function, and importance of plant life to ecological and human systems. Emphasis on scientific inquiry of real-world problems involving plant anatomy and growth, responsiveness, evolution, reproduction, economics, and symbiosis of plants. Prerequisite: ENG 101 placement.

General Education Objectives:

- Demonstrate their ability to solve problems, by collection and evaluating facts and using methods of scientific inquiry.
- Demonstrate their ability to compute and to think and express themselves effectively in quantitative terms.
- Demonstrate information literacy and their ability to think critically, which includes identifying biases and selecting and evaluating sources from varying as well as conflicting positions.

### TENTATIVE SCHEDULE

MODULE	TOPICS	LAB	QUIZ DUE DATES/Chapters Covered	Other deadlines/comments
1 Aug 24 – 28	Plant Biology and Life (Chemistry & Science)	Aug 26 <sup>th</sup> & 28 <sup>th</sup> Prairie plan review; plant inventory	Quiz – Sept 2 Ch. 1,2	We may also visit the greenhouse and visit the Parkland Prairie. What plants can we plant? Space needs?
2 Aug 31 – Sept 4	Cells & Tissues	Sept 4 – measuring and records data	Quiz – Sept 9 Ch. 3,4	Note that Sept 7th is a holiday.
3 Sept 7- 11	Roots & Soils	Sept 11 – plant plants!!	Quiz – Sept 16 Ch. 5	Bring gloves; wear old cloths for the lab – we will be outside working!
4 Sept 14 – 18	Stems, Leaves & Water	Sept 18 – microscopes, cells, osmosis	Quiz- Sept 23 Ch. 6,7,9	Check on plants
5 Sept 21 - 25	Flowers, Fruits, & Seeds	Sept 25 – Plant cell cultures Part 1	Quiz – Sept 30 Ch. 8	Special dress instructions for lab
6 Sept 28 – Oct 2	Photosynthesis & Respiration	Dec 30 - set up respiration lab Oct 2 – pigments & chromatography	Quiz – Oct 7 Ch. 10	Also check prairie plants and cell cultures
7 Oct 5 – 9	Growth, Development, Meiosis & Alt. Gen.	Oct 9 – record respiration data	Quiz – Oct 14 Ch. 11-12	Also check prairie plants and cell cultures
8 Oct 12-23	Genetics & Biotechnology	Oct 16 – record culture data Oct 23 – DNA lab	Quiz – Oct 28 Ch. 13,14	Also check prairie plants

9 Oct 26 – Nov 13	Bryophytes to Angiosperms, pollination, evolution	Oct 30 – Cell Culture Part 2	Quiz – Nov 18 Ch. 15, 20-23	Be ready to visit prairie plants & record data
10 Nov 16-20	Plants & People	Nov 20 – visit U of I conservatory	Quiz – Nov 24 Ch. 24	Note the last day to take the quiz is on TUESDAY, Nov 24; no class Nov 26 <sup>th</sup> for Thanksgiving
11 Nov 23 – Dec 4	Ecology, Conserv.,& Sustainability	Dec 4 <sup>th</sup> – last recording of cell culture data	Quiz – Dec 9 Ch. 25	
12 Dec 7 - 11	Biomes & review for final exam	No lab – hand in prairie plant notebook – take last quiz, review	Quiz – Dec 11th	
<b>FINAL EXAM</b>	<b>Dec 15<sup>th</sup>; Tues, 11 am – 1pm – in classroom</b>			

## GRADING

<b>ASSIGNMENT</b>	<b>TOTAL POINTS</b>	<b>WEIGHT (approx.)</b>
12 Quizzes @ 10 pts each	120	30%
Plant notebook	50	12%
7 Labs @ 10 pts each	70	17%
Plant Talk & Essay	50	12%
Cell culture lab	25	6%
Attendance & Work Ethic	20	5%
Final Exam	50	12%
Extra Credit (TBA)	20	
<b>Total Points</b>	<b>405 plus 20 EC</b>	<b>100%</b>

\*TBA = TO BE ASSIGNED.

These points may vary through the semester.

### GRADING SCALE

A = 90% and Above

B = 80 – 89%

C = 70 – 79%

D = 60 – 69%

F = 59% and below

**ACADEMIC HONESTY:** Parkland has a very clear policy on academic honesty and dealing with plagiarism. I reserve the right to give a zero to any assignment and quiz that I suspect is plagiarized.

**USE OF ELECTRONICS IN CLASS:** I may limit the use of cell/smart phones, etc. in class.

### AMERICAN DISABILITIES ACT:

If you feel that you have a disability for which you may need an academic accommodation (including special testing, auxiliary aids, non-traditional instructional formats), please inform the instructor as soon as possible and contact the following for assistance:

Cathy Robinson, Director of Disability Services at  
disabilityservices@parkland.edu or 353-2338  
Or visit room U260  
[crobinson@parkland.edu](mailto:crobinson@parkland.edu)

**WITHDRAWING:** Withdrawal from the course is solely the responsibility of the student. Information on the withdrawal policy and procedures is published in the most recent Parkland College Catalog and Parkland Class Schedule.

### REQUIRED MATERIALS:

-Stern's Introductory Plant Biology, 3<sup>rd</sup> edition, by J. Bidlack and S. Jansky

- Sturdy workgloves
- Hand trowel
- Shoes & clothes that can get dirty & protect your feet and legs
- 8.5" x 11" spiral notebook or something similar to record plant and field data
- 1 liter+ water bottle
- Sunscreen
- Hat

All other required materials will be given to you.

**QUIZ INFO:** There are twelve module quizzes, each worth 10 points. The quizzes for the modules will be taken in the testing center (L-161). Note that their hours are 9 am-4 pm weekdays. You must start the quiz at 3:45 PM or earlier. Note that you have two tries per quiz; the higher score will be counted. Normally, these last day to take these quizzes will be 4 pm on the Wednesday following the week that the module for that quiz ends.

**LATE WORK:** The instructor does not give full credit for late work. NO work more than 1 week late will be accepted. You may be asked to present evidence for why work was not turned in on time and it is at the discretion of the instructor to accept the work or not even if turned in within the 1 week late period.

**LABS:** Labs may be held on Wednesday or Friday and lab hand-ins are due on the following Monday. Some labs may be off campus; it is the responsibility of the students to provide their own transportation to off campus lab sites. Some but not all labs can be made up even with a valid excuse.

**CELL CULTURE LAB:** This is a special, BIG LAB that requires a lot of time to set up and monitor so it is counts separately from the other labs.

**PLANT NOTEBOOK:** This assignments are products of a service project to plan, grow, and plant prairie plants around the Parkland Campus. This project is also in conjunction with the greenhouse.

**PLANT TALK AND ESSAY:** This involves selecting a plant article, writing an essay about the article and giving a short talk about the essay.

**FINAL EXAM:** A comprehensive final exam is given in-class (not the testing center) and is based on the module quizzes.

For the Parkland College Syllabus addendum, please see one of the following:

QR code and URL for Syllabus Addendum 2013SP



[https://cobra.parkland.edu/shared/shared%20content%20files/syllabus\\_addendum.html](https://cobra.parkland.edu/shared/shared%20content%20files/syllabus_addendum.html)