

Botany 200 Syllabus, Fall 2012

Catalog Description:

Botany 200: Introduction to Botany. Lecture and lab emphasize basic principles in plant biology including scientific inquiry, cell biology, genetics, ecology, evolution, and diversity in plant anatomy and physiology.

Meets Mon - Wed - Fri at 11am, lab required

“In accordance with Illinois State Board of Education certification rules, all candidates seeking teacher certification are required by Western Illinois University to obtain a grade of “C” or better in all directed general education course, all core courses, and all courses in the option. Note: A “C-” is below a “C.” Please note: any secondary science teacher certification student wanting to see how this course is aligned with the State and National Standards should see their advisor and/or examine the Secondary Science Teacher Certification WesternOnline Advising site.

Professor:

Dr. Eric Ribbens

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Me:

I am a plant ecologist. I'm interested in what plants do, how they interact with other plants and with their environment. Professionally, I am best known for my work in developing spatial models of seedling distributions for use in computer simulation models, but I have also been studying a group of neotropical trees, a small cactus that grows in Illinois, sustainability, and innovative teaching methods (such as clickers and cases). I have been teaching at Western Illinois University since 2000. I have two great teenaged daughters, I play flute or piano Sunday mornings at University Baptist Church, and I'm the oldest brother in a big family (8 children, 22 grandchildren). I like jazz and blues, I have published some creative writing, and I think every freezer should hold some popsicles. I struggled with college ... after two years, I dropped out with a GPA of 1.6, and worked for years in factories before going back to college, at first at a community college at night.

Use me as a resource! DO NOT HESITATE to email me, ask me questions, or set up an appointment to meet with me ... it's what I expect and want you to do. One of the best ways for you to learn is to ask questions. It's not brown-nosing, it's not unethical, and it's not cheating.

Course Goals:

- 1: Survey the field of botany, esp. cells, genetics, evolution
- 2: What is science, and how is science done?
- 3: Convince you to change your major to botany because it is so cool

Course Textbook:

Nabors, Murray W. 2004. Introduction to Botany. Pearson / Benjamin Cummings Publishers.
Overall, I really like this book. The chapters are organized well, and within each chapter the writing is clear and the images superb. Each chapter ends with a good summary and several sets of questions for you to think about. It is a good supplement to the course: while I will be writing tests and quizzes primarily about material we cover in class, I think reading the appropriate textbook chapters is a good way to get a second perspective on the subject matter, and we will begin each class with several questions reviewing the reading assignment for that day. I will announce textbook assignments during the course.

Laboratory:

You **MUST** be enrolled in the course lab, for which you will need a lab manual. Departmental policy: attendance at each lab is required, and if you fail the lab you fail the course!
Note: The bookstore may list a lab dissection kit as required for this course. You don't have to buy it, however.

First Year Experience Course:

This is an FYE course. Therefore, you must all be taking this class in order to satisfy one of your FYE requirements. The first year experience concept is a class designed to help you do better in college. The class size is small, you get a good experienced teacher who will get to know you quite well, we have a peer mentor, 25% of the course grade is required to be writing, and you are required to attend at least three co-curricular events scheduled outside class time.

Our peer mentor is Haley Patterson. Haley took an FYE section of Botany with me last year. She's a great person, and wants to get to know you. She'll be attending labs each week, working with me on the co-curricular events, and may be doing things like leading review sessions. But in particular Haley is a resource you should use as needed to help you figure out how to "do college".

Co-curriculars are activities scheduled outside class time. The goal is to show you some of the varied opportunities that the college experience offers you, and to enrich the course content. We will be scheduling more than three co-curricular opportunities (last fall we had six), and you will be getting points for attending cocurriculars. Right now I can tell you one of them:

Tuesday August 21 at 5pm we will have a class burrito dinner at my house. I'll have stuff to put on burritos, and we'll start getting to know each other better. You'll also get to meet my wife (Mary Fran) and our dog (Dirk), plus at least one of our cats (Frannie likes people, but Saluki will probably hide in the closet).

Other co-curricular events will be announced. **You must attend at least three.** Last semester several students had their grades reduced one letter (e.g. B to C) because they had not completed

three co-curriculars. I reserve the right to reduce your grade or give you a failing grade if you do not attend co-curricular events, and I have failed students for this in past years. Each co-curricular event will be worth 10 points of course credit, so if you go to more than three, you get more points!

Desire to Learn:

We have a course website on Desire to Learn. If you are registered for this course you should already be able to access the website. If you can't get into the website or you have problems navigating it, ask me for help. Various documents relevant to the course will be posted here. For example, this syllabus is available on the website in the module Paperwork, and I may also post suggestions for studying, etc.

Attendance:

You will learn the material and demonstrate your ability most effectively if you attend classes. Therefore, attendance is required. Students who miss classes must write a paper about what we did in class the day you missed. **THESE PAPERS ARE DUE WITHIN A WEEK**, and if you don't do them you cannot take the next exam. If you miss too many classes I reserve the right to assign additional assignments or other penalties, including failing the course. (How many is too many? Unless you have really good extenuating circumstances, I think missing ONE class is too many.)

Grades:

I give number grades for work during the semester, and calculate letter grades at the end of the semester, and I don't curve. **At any point in the semester** I am happy to discuss your grade with you. However, you should realize that there will be quite a bit of uncertainty until the end of the semester, since you must pass the final, and I don't know how many clicker questions there will be. Notice that the grading is somewhat open-ended: you have a variety of options to achieve points.

Graded material will include:

test 1: 100 points

test 2: 100 points

final exam: 100 points, which you must pass to pass the class

co-curricular events: 10 points each (at least 3, up to 5)

lab reports: 40 points each (4)

writing assignments: 10 points each (4? More?)

clicker questions: 150 points

every day will start with reading review questions

during each class there will be more clicker questions

I add up all of the clicker questions, drop 10% of the questions, and calculate your clicker

grade.

540 and up: A

480 to 540: B

420 to 480: C

below 420: F

within this general framework, I use pluses and minuses for students near the borders.

Writing is an important component of this course (a required part of an FYE class). In addition to writing, you are also expected to practice your rewriting skills. One of your lab reports will be rewritten, and if you have writing problems I will assign more reports to be rewritten. WIU has a writing center, which many of you will want to use. Take an assignment and your draft to them, and they will help you think about how to improve your writing style. In this class we will have a number of writing assignments. You will also be writing lab reports, and will get a separate handout describing lab reports and how to write them.

Tests: We will have two midterm tests, and a final exam. The midterm tests will probably be essay questions, but may have multiple choice questions, short answer / paragraph written responses, drawings, tables, or matching, as well as anything else that I decide to use to evaluate your knowledge. **PLEASE write legibly on a test! If I can't read your handwriting the answer is wrong, and I am the one who decides whether I can read it or not! Of course, you also should use good grammar and spelling; points may be deducted or the question may not be graded if there are substantial writing problems.** The final exam will be an overview of the entire semester, and will probably be short answer / paragraph written responses.

Midterm grades: the registrar will ask me to assign midterm grades, and some university events (athletics etc.) also request midterm grade feedback. I will file these, and attempt to give the entire class feedback about your grades at those points. And I am of course very happy to discuss your grade with you at any point in the semester if you wish.

Final exams: On the final exam you will be expected to discuss a set of questions about botany. The final exam will be comprehensive. **You must pass the final exam in order to pass the course.** In other words, if you can't demonstrate on the final that you know the subject material, you will get an F for the course.

Resources to help you: First, the Biology Assistance Center (BAC). Second, tutoring will be available for this class. Third, our peer mentor, Haley Patterson. Fourth, it is my job and my pleasure to help you. **COME TALK TO ME!**

Legal Stuff and Behavior:

Course Conduct: You are all adults, and you are in this class because you want to be. This means several things. First, you are responsible for your own learning. I am not responsible if you don't

study. Second, you should act responsibly in class. We may disagree, but we should always treat each other with respect. You can bring ipods, cell phones, computers, etc. to class. You will be talking in class. But the focus of class is **class**. Please don't surf the web, call your friends, listen to music, or chat about other topics during class. Turn that cell phone off if you can't leave it alone. Third, don't lie to me. Finally, respect your fellow students. Stuff that happens in class stays in class. Don't gossip about them, and don't do things that disrupt our learning.

Disabilities Statement: "In accordance with University policy and the Americans with Disabilities Act (ADA), academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. For the instructor to provide the proper accommodation(s) you must obtain documentation of the need for an accommodation through Disability Resource Center (DRC) and provide it to the instructor. It is imperative that you take the initiative to bring such needs to the instructor's attention, as he/she is not legally permitted to inquire about such particular needs of students. Students who may require special assistance in emergency evacuations (i.e. fire, tornado, etc.) should contact the instructor as to the most appropriate procedures to follow in such an emergency. Contact the Disability Resource Center (DRC) at 298-2512 for additional services."

One of the things this means is that I will work with you to help you deal with any disability you may have, but if you don't let me know about it then it's not my fault if it causes you problems, because I can't come to you and suggest that you have a disability.

Speaking of disabilities, you should know that I have several problems. In particular I have retinitis pigmentosa, a genetic disease. In my case I have mild to moderate hearing loss (especially in the upper registers) and very limited peripheral vision. In other words, I'm legally blind, and I don't see anything unless I am looking directly at it. What this means for you is that I may ask you to repeat something you say, and I may not see a hand held up or other things (students goofing off, people having problems, etc.). Please help me: if someone is trying to get my attention let me know about it, and be patient if I ask you to repeat yourself or speak more loudly. If someone is being disruptive, let me know, and tell them to shape up. And if I walk past you in the hall and don't say hi, it doesn't mean I don't like you; it probably just means I didn't see you!

Plagiarism/ Team Work Warning: I have no objections whatsoever to you discussing course problems with other students in the course; in fact, I believe that team analysis and problem-solving can be a powerful learning tool, and I very strongly encourage you to work on the individual topics in teams. However, you must individually prepare your tests, writing assignments, and clicker questions. You may not give your clicker to a student to use if you are absent, or use another student's clicker for them. Do not use other sources in your lab reports without properly citing the source. For more information, see <http://www.wiu.edu/policies/ugdshst.shtml>

How to Do Well in this Course:

We will be covering a lot of material in this course, including how science works, a considerable amount of botany, and writing. My goal is for this class to be enjoyable, and for you to learn as much as possible. Although everyone learns slightly differently, I suggest you:

- read the appropriate chapter in the textbook before class
- note down areas that you don't understand
- take notes during class, but don't try to write down everything on the powerpoints
- after class, I will post the powerpoint to Desire to Learn
- download the powerpoint, go through it, and ask yourself two questions:
 - what did Dr. Ribbens want me to learn?
 - do I know it?

Studying in a small group has been shown to be one of the best tools for many students to learn course material. I encourage you to form a small group. Review the material. If you think you know the subject, try to teach it to someone else. Write test questions, and see if you can answer the questions your friend wrote. It is also a good idea for your group to periodically schedule a review session with me or Haley.

Date	Monday	Lab	Wednesday	Friday
Aug 20	Liberal arts Intro to course	no lab this week	Cells	Cells
Aug 27	Cells	Exercise 1: Plant Cells		
Sept 3	no class, Labor Day	Exercise 2: Angiosperm Anat.		
Sept 10		Exercise 3: Angio Anat / Phys		Dr. Ribbens has surgery, class ?
Sept 17		Exercise 4: Plant Growth Part 1		
Sept 24		Exercise 5: Plant Growth Part 2	test 1	
Oct 1		Exercise 6: Plant Growth Part 3		
Oct 8		Exercise 7: Photosynthesis		no class holiday
Oct 15		Exercise 8: Angiosperms 1		
Oct 22		Exercise 9: Angiosperms 2		
Oct 29		Exercise 10: Gymnosperms	test 2	
Nov 5		Exercise 11: Ferns, Bryophytes		
Nov 12		Exercise 12: Genetics		
Nov 26		Exercise 13: Genetics Problems		
Dec 3		Exercise 14:		
Dec 10	final exam is Wednesday at 8 am.			

