Botany 200 Syllabus, Spring 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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Email: E-Ribbens@wiu.edu
Webpage: http://www.wiu.edu/users/mfer1

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 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:

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.
This is a very readable book that describes the ways four different plants have shaped
humans. I think it is a good introduction to thinking about plants and about the ways
humans are shaped by our environment as well as shape it. You will be reading this book
and writing a reflection paper about it.

Laboratory:

You MUST be enrolled in the course lab, for which you will need a lab manual: Barden-Gabbei,
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 Rosendo Garcia. Rosendo plans to graduate from WIU with a degree in
Biology this spring, and is planning to go to graduate school in fisheries biology. Rosendo took
Botany with me a few years ago. He’s a great guy, and wants to get to know you. He’ll be
attending class at least once each week, working with me on the co-curricular events, and may be
doing things like leading review sessions. Rosendo 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). Right now I
can tell you three of them:

Thursday January 19 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).

Thursday February 2 in the evening the Campus Greens will be showing a movie “Red Rock” about southern Utah environments. The director of the movie will visit our class on Friday. I expect everyone to attend these two Thursdays; if you absolutely cannot you MUST come talk to me about your conflict.

We are also planning a Saturday trip to the Niabi Zoo sometime in April. 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.

Desire to Learn:

We have a course website on Western Online. 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, 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 schedule a time to meet with me to discuss the material you missed. 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 two classes 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.

Graded material will include:
- test 1: 15%
- test 2: 20%
- final exam: 15%
lab reports (at least 5): 25%
rewriting lab reports: 5%
clicker questions:
  every day will start with three review questions
during each class there will be more clicker questions
I add up all of the clicker questions for each category, drop 10% of the questions, and calculate your clicker grade. Review questions are 10% of the course, and lecture questions are another 10%.

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. Two of the lab reports will be rewritten (I will announce the rewriting after the lab reports are turned in). All writing assignments will be due Monday in class. You will 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 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, Rosendo Garcia. 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 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. Do not use other sources in your lab reports without properly citing the source. For more information, see http://www.wiu.edu/policies/ugdishst.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 often works well. 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.
<table>
<thead>
<tr>
<th>Date</th>
<th>Monday</th>
<th>Lab</th>
<th>Wednesday</th>
<th>Friday</th>
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<tbody>
<tr>
<td>Jan 16</td>
<td>no lab Tuesday, Thursday dinner</td>
<td>Liberal arts concept</td>
<td>Intro to course</td>
<td>Cells</td>
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<td>Jan 23</td>
<td>Cells</td>
<td>Plant Cells lab manual 2</td>
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<td>Jan 30</td>
<td>Cells or Genetics cells report due</td>
<td>Meet Mendel</td>
<td>Genetics</td>
<td>Feb 2 Red Rock speaker visits</td>
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<td>Genetics, Red Rock report due</td>
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<td>Scientific Method</td>
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<td>DNA</td>
<td>Plant Growth III Seed Dispersal II</td>
<td>DNA</td>
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<td>report 5 due</td>
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<td>Apr 2</td>
<td>Angiosperm Reproduction lm11</td>
<td>Environmental Summit</td>
<td>Good Friday no class</td>
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<td>Apr 9</td>
<td>test 2</td>
<td>Phylogeny lab</td>
<td>start Unit 7</td>
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<td>Apr 16</td>
<td>report 6 due</td>
<td>Gymnosperms, Ferns, Bryophytes</td>
<td>start Unit 8</td>
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<td>Apr 30</td>
<td>report 7 due</td>
<td>Deer case</td>
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<td>May 7</td>
<td>final exam is Wednesday at 10am</td>
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