Course Description:
Class meets in Waggoner 3 at 9am Monday, Wednesday, and Friday. Labs meet in Waggoner 344 on Tuesdays and Thursdays (you should be scheduled for a section already).

WIU Course catalog says: 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. 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.

Note that this is now also true for biology majors: you need to get a C or higher in order to move to more advanced biology courses.

Professor:
Dr. Eric Ribbens
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Phone: (309) 255-1650
Email: E-Ribbens@wiu.edu
Webpage: http://www.wiu.edu/users/mfer1

I’ve been teaching at WIU since 2000. I’m a plant ecologist, which means I’m interested in what plants do and why they do it. I study a little prickly pear cactus that grows throughout the northern part of our country from Michigan west to Washington (yes, it grows in Illinois), and I take care of the herbarium here at WIU (a herbarium is a plant museum). My wife Mary Fran and I live near campus with our dog Dirk and our two cats, and I have two teenaged daughters that live in Normal Illinois.

Office hours:
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. So I know what it’s like to have difficulties with college. 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. My formal office hours this semester are 10am Monday, Wednesday, and Friday, but I’m around quite a bit during the day. If my office door is open, come on in! Warning: the herbarium is behind my office, so if you don’t see me that’s ok, just come in and try to find me. Also, I live very close to WIU, so it’s pretty easy for me to meet with you in the evenings. IF YOU WANT HELP GET IN TOUCH! That’s the college culture: I’m happy to help, but you need to ask.
Laboratory:
You MUST be enrolled in the course lab, for which you will need a lab manual: Barden-Gabbei, Laura M., and Sue M. Hum-Musser, editors. 2007. Botany 200: Introduction to Plant Biology. Note that I do not set lab rules. It is 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 the kit, however.

Clickers:
We will be using iclickers in class. You may have worked with clickers already. They are a piece of hardware you need to buy and register, that will enable you to answer multiple choice questions that I ask during class. WE WILL START USING CLICKERS WEDNESDAY. You don’t need to have yours registered to use it, but you will need to register sooner or later. Clickers will be 20% of your course grade, so you really need to get one. They cost about $40, but my students usually get about a letter grade higher when we use clickers.

Textbook:
I’m trying something new this year. As a way to keep costs down, we’re using a custom textbook that consists of chapters from several different textbooks. This makes the textbook about 35% of the cost of what we used before. I will be assigning chapters from the textbook. You should read these chapters the week before we work on them to get “up to speed” with the topics we will explore each week. If you have another version of a plant biology textbook, we can probably make that work. Come talk to me about it if you do.

Piazza:
Piazza is a course management website, somewhat like Western Online but I think it works better. We will use Piazza to manage class online discussions, and I will post powerpoints and other course resources there. You should have gotten an email about the Piazza account.

Disabilities:
University 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, and a considerable amount of botany. 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 the week
- work through my study prep notes for the week
- 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 Piazza
- 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.

Frequently Asked Questions:

Do you grade on a curve? No. I’d be happy if EVERYONE got an A. Likewise, if you don’t do the work, I’m not going to adjust your grade.

Could you please post your powerpoints ahead of class? Yes, sort of. I will try to post a weekly preparation powerpoint by Thursday the week before. I’m not going to post daily powerpoints. First of all, I am often revising them until close to class time. Second, I have clicker questions embedded in the powerpoints, usually with explanations of the correct answer after them. Third, I
want you to be paying attention during class. Don’t try to write everything on the powerpoints down! Instead, focus on this question: What does Dr. Ribbens want me to know about this topic? You can get the powerpoint off Piazza later, and after working through it if you have any questions you can come talk to me about them.

*Mandatory attendance is so high school. Do we really have to?* Yes. Good research shows that missing only two days of class a semester is a strong predictor of dropping out of college. I don’t want you to drop out.

*I’m having problems with my lab TA. What should I do?* First, go talk to your TA. Second, you can go talk to Ms. Aanenson, our lab coordinator. Third, come talk to me if neither of these resolve the problem.

*Do you give extra credit?* I don’t like that term; I prefer to say that I give optional additional assignments. The points earned by doing these optional additional assignments will be added to your total grade.

**Grading:**

- 90\% and up: A
- 80\% to 90\%: B
- 72\% to 80\%: C
- 64\% to 72\%: D
- below 64\%: F

- Labs: 150 points (I won’t know your lab grade until the end of the semester)
- Clickers: 120 points (I add up all your clicker points, and at the end of the semester rescale your points to 120, dropping 10\% of the questions)
- Exams: 300 points (3 exams)
- Other: 30 points (quizzes? To be determined ...)
- **Total:** 600 points
### Course Schedule:

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Lab</th>
<th>Reading</th>
<th>Case</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 19 1</td>
<td>Intro to course and science</td>
<td>no lab first week</td>
<td>1: Form &amp; function</td>
<td>Scurvy case</td>
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<tr>
<td>Aug 26 2</td>
<td>How are plants different?</td>
<td>Lab 1: Plant Cells</td>
<td>2: Roots</td>
<td>Prickly pear history and 4Circles</td>
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<tr>
<td>Sept 2 3</td>
<td>What’s in a plant?</td>
<td>Lab 2: Angiosperm Anatomy</td>
<td>3: Leaves</td>
<td>no class Monday</td>
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<tr>
<td>Sept 9 4</td>
<td>How do trees grow?</td>
<td>Lab 3: Angiosperm Anatomy and Physiology</td>
<td>4: Sci method</td>
<td>Exam 1</td>
<td></td>
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<tr>
<td>Sept 23 6</td>
<td>How do things move in plants?</td>
<td>Lab 5: Nutrients Exp and Seed Dispersal</td>
<td>6: Design a research project</td>
<td>Walk across Costa Rica?</td>
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<tr>
<td>Sept 30 7</td>
<td>How do plants move?</td>
<td>Lab 6: Nutrients and esp Seed Dispersal</td>
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<td>Medicinal marijuana</td>
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<td>Oct 7 8</td>
<td>How do plants eat?</td>
<td>Lab 7: Photosynthesis</td>
<td>7: Photosynthesis</td>
<td>White-striped clover</td>
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<td>Oct 14 9</td>
<td>How do plants reproduce?</td>
<td>Lab 8: Fruits Repro and Seed Dispersal</td>
<td>9: Energy Flow</td>
<td>no class Friday</td>
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<td>Oct 21 10</td>
<td>What kinds of plants are there?</td>
<td>Lab 9: Angiosperm Repro (flower dissection)</td>
<td>8: Plant diversity</td>
<td>Exam 2</td>
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<td>Oct 28 11</td>
<td>How do plants respond to env?</td>
<td>Lab 10: Gymnosperm Repro</td>
<td>Darwin</td>
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<td>Nov 4 12</td>
<td>How did plants evolve?</td>
<td>Lab 11: Ferns and Mosses</td>
<td>12: Evolution</td>
<td>Mendel</td>
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<td>Nov 11 13</td>
<td>How do genes work?</td>
<td>Lab 12: Genetics</td>
<td>Genetics problems</td>
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<td>Nov 18 14</td>
<td>How does DNA tech work?</td>
<td>Lab 13: more genetics</td>
<td>Golden rice</td>
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<td>Dec 2 15</td>
<td>How do plants fit into tree of life?</td>
<td>Lab 14: protists</td>
<td>10: Protists</td>
<td>Bug case</td>
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<tr>
<td>Finals week</td>
<td>9am class: Wed 8am, FYE class: Wed 10am</td>
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<td>Wed 8am</td>
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