

Syllabus BIOL 3339 – 001 (20159)

Plant Biology

Spring 2024

Meeting Times: Mondays, Wednesdays, and Fridays 9:05am – 10:00am

Location: Soules College of Business (COB) Room 214

First Day of Class: Tuesday, January 16th

Last Day of Class: Friday, April 26th

Final Exam: Monday, April 29th from 8:00 – 10:00am

Date to Withdraw Without Penalty (Census Date): Monday, January 29th

Spring Break (No Classes): Monday, March 11th – Friday, March 15th

Instructor:

Dr. Joshua Banta

Director, Center for Environment, Biodiversity, and Conservation

Professor, Department of Biology

Office: Hudnall, Pirtle, Roosth Building (HPR) Room 129

Phone: (903) 565-5655

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Office Hours: MWF 10:00 – 11:00 am or by appointment or simply call my phone number.

Course Description: This course focuses on plants, their unique features, their diversity, and how they profoundly influence all life on Earth. The goals of this course are for students to understand what makes a plant a plant and to appreciate the ways in which plants make life possible for humans and life on Earth in general.

Student Learning Objectives: By the end of the class, you should be able to...

- 1) Describe what a plant is and how plants are different from animals
- 2) Describe a plant cell, its parts, and its unique features
- 3) Explain how a plant cell captures energy (photosynthesis)
- 4) Describe the main groups of plants and how they differ from each other
- 5) Understand the significance of plants to you and your life, and be able to use your knowledge of plants to make informed decisions

Recommended Textbook

- *Plant Biology, Third Edition*, published by LJLM Press (Graham, Graham, and Wilcox, authors)
 - Available exclusively for download through this link:
 - http://ljlmpress.com/plant_biology.html
 - Cost: \$40.
 - Do not print out the book. It is designed to be read directly on your computer, laptop, smartphone, or tablet.

Grading:

Three exams, each worth 15% of final grade (worth 45% of final grade when added together)

One comprehensive final exam, worth 25% of final grade

Quizzes, worth 10% of the final grade when added together

Top Hat questions, worth 5% of the final grade when added together

In-Person Attendance, worth 5% of the final grade when added together

Graded assignments, worth 10% of final grade when added together

Total: **100%**

90% – 100% = A

80% – 89% = B

70% – 79% = C

60% – 69% = D

< 60% = F

Required Materials:

- Top Hat™ Student Response and Engagement System.
- A smartphone with a working camera.
- You must be able to hear sound through your smartphone!

Attendance and make-up policy: This is not an online or a hybrid course. You are expected to be at class, on time, for every class, and you are expected to stay the whole time. If you have obligations that keep you from coming to class, on time, on a regular basis, and staying the entire time, then you may need to drop the course. I will take in-person attendance during every class period and the attendances count for 5% of your final grade when added together. **Attendance points could make the difference between one letter grade and another!** There will always be make-up work to do at home if you miss class, so communicating with me in a timely manner is very important.

Excused absences:

- Please do not come to class if you have any of the following symptoms:
 - Fever or chills
 - Shortness of breath or difficulty breathing
 - Nausea or vomiting
 - Diarrhea
- You are automatically excused from class if you have any of the symptoms listed above, **as long as you tell me right away (on the same day).**
 - No doctor's note is required and no proof is required, but you must tell me right away (on the same day).
 - You will still have work to do at home! And there will be strict deadlines.
 - If you wait to tell me about it until after that day, you will **not** be allowed to make up the missed assignments and you will get zeros for that day and the zeros cannot be changed.
- If you provide care for a loved one (a spouse, a (grand)parent, or a child) and they have fallen ill right before class, then you may be excused from that class period, at my sole discretion.
 - You must tell me right away (on the same day).
 - You will still have work to do at home! And there will be strict deadlines.
 - If you wait to tell me about it until after that day, you will **not** be allowed to make up the missed assignments and you will get zeros for that day and the zeros cannot be changed.
 - You may be excused from only that one class period, in order to allow you to make other arrangements that will allow you to come to the next class period and to continue attending class from there on out.
 - If you have a loved one with a more chronic or long-term illness that keeps you from coming to class on a regular basis, then you may need to drop the course, or you may need to take an incomplete grade and finish the course later.
- I may excuse other absences that are not due to illness, at my sole discretion. Valid excuses may include:
 - A sporting or other university-related event
 - A note from a university official or other official documentation is required
 - A death in the family
 - Some form of documentation to my satisfaction is required.
 - A car breakdown that occurs directly on the way to class or on the night before class.
 - Documentation is required, such as:
 - A bill from a mechanic's shop
 - A video from your phone showing that the car has just broken down
 - A police report showing that you were just involved in an accident on the way to class or on the night before class.
 - Routine vehicle maintenance, such as an oil change, is not excused, even if the maintenance is overdue.
 - Car repairs, even urgent ones, are not excused, unless the car suddenly stops running on the day of class or on the night before class and the car wouldn't move.
 - Beyond an immediate car breakdown that occurred on the day of class or the night before class, the lack of a dependable vehicle is **not** an excuse to miss class.
 - If your car dies, you are expected to make alternate arrangements right away (such as procuring a rental car, arranging a carpool, or taking public transportation) and to be able to attend the next class period. Otherwise, you will receive a zero for all assignments for the next class period and the zeros cannot be changed.
 - Future classes will **not** be excused while you wait for repairs to your vehicle, even if the mechanic's shop is backed up or if it takes longer than expected.
 - Attending a wedding
 - I may allow no more than one day of excused absence to attend a wedding, at my sole discretion. Documentation to my satisfaction is required and you must let me know far (at least a week) in advance.
- If you have a disability that prevents you from attending class on a regular basis, you must document your disability right away through the Student Accessibility and Resources (SAR) office. They will direct me as to how to best accommodate your disability.

- Their phone number is 903-566-7079 and their email address is saroffice@uttyler.edu.
- Until the SAR office reaches out to me, I am required to insist on your attendance along with everyone else, and I must give you the same penalties for missing class that I give to everyone else.

Correspondence: You are required to activate the email address that is listed for you on Canvas and to check it regularly. You must check this email address at a minimum every Monday, Wednesday, and Friday morning, for the entire duration of the semester, for any correspondence from me. You are also required to check the Canvas site for this course every Monday, Wednesday, and Friday morning as well, for the entire duration of the semester, for any announcements. You will be held responsible for any information, including deadlines, that I communicate to you via your email address listed on Canvas and/or through the announcements on the Canvas course site. The information could come from one or both places (email and/or Canvas announcements), so you must check **both** places on the schedule indicated above.

Due Dates and Deadlines: You are required to have this course visible in your calendar on Canvas. To do so, make sure the box for the course has a check mark. You will be held responsible for all of the due dates and deadlines for this course that are indicated in your Canvas calendar.

Copying: You can discuss your assignments with your friends or classmates whenever you want and you can discuss anything you want. But **you**, alone, are expected to write everything that you submit, by yourself, and everything that you submit must be in your own words. It is not allowable to hand in something as a group, or for all members of a group to each hand in the same thing. **Any** copying whatsoever from others, whether they are part of your study group or not, is entirely **prohibited**. You are **not** allowed to pass around your submitted assignments or drafts to anyone else to look at, **for any reason**, and you are also not allowed to look at submitted assignments or drafts of anything written by anyone else. These prohibitions apply to any materials submitted by students in previous years' classes as well. These prohibitions also apply to any material from **any** source (newspaper, TV, website, professional journal, magazine, etc.) Simply putting everything in quotation marks does **not** get around any of these prohibitions, **because quoting is not allowed either, no matter what the source is!** If you hand in the same assignment as someone else, or if it is copied from someone else, even a little!, or if the assignment contains any quoting from any source, with or without quotation marks, you will receive a zero for the assignment and the person you copied from will receive a zero as well. I will not seek to determine who copied from whom; all persons with similar content will have the same penalty.

Quoting: As mentioned above, quoting is **never** allowed in this class, even if you use quotation marks. Everything must be written in your own words, not those of your study group or of anyone else.

Appeals: If you think something was scored incorrectly, you will need to follow the following procedure:

- Write a few sentences explaining why you think you should have received a different score.
- Appeals will only be accepted through Canvas, and must be turned in no later than one week after the assignment was graded. Go to the course site and select "Modules" → "Appeals."
- Failure to follow these rules means that your appeal will not be considered.
- The only reasons I will give back points are if: (1) I made a math error; or (2) I decide that your answer was factually correct and followed all applicable rules indicated in the syllabus and elsewhere. By "factually correct," I mean that your answer was really true about the world. Please also note that I, alone, will determine what is factually correct and what is not.
- The following are **not** valid reasons for getting points back: you feel that I explained something badly, you misunderstood what I was saying, or you feel that my PowerPoint slides or other materials were wrong or unclear.
- Please note that I cannot discuss anyone else's scores with you because of privacy reasons, even if you say that you have their permission, and even if they say that I have their permission. I lack the legal expertise to allow someone to waive their privacy privileges, even if they want me to, and even if they have already shared their scores with others on their own.
- Appeals can result in a lower score, the same score, or a higher score than you originally received. Specifically note that I reserve the right to **lower** your score if I re-evaluate it and deem it appropriate.
- The rules about copying apply to appeals as well. See above.

Unicheck: All assignments and appeals that you hand in will be checked for copying using a program called Unicheck™. This software checks the internet as well as every other student's work who has ever taken this course or any other course. It also checks against any papers that are secretly traded or sold over the internet. It uses artificial intelligence to detect copying. The bottom line is that if you copy someone else's or somewhere else's writing, even a little, the software will catch you and it will give me the names of the other persons and/or the other copied sources.

Weather and/or closures: In the event of weather-related or other closures, the course will proceed entirely online instead. Deadlines will not be altered except under extreme circumstances at my discretion. The bottom line is that, even if the university gets closed, this course will always stay “open” as originally scheduled.

Privacy: Students do **not** have the right to be “anonymous” whether classes are in person or online, or for all-online classes. All discussion will take place within Canvas, and your names will be displayed.

Quizzes: There are three quizzes due three times per week (**please note: three times per week**). The quizzes are embedded into pre-recorded videos on Canvas. In other words, you will take the quizzes as you watch the videos. The quiz questions automatically pop up on your screen as you go along. The due dates of the quizzes are indicated in your Canvas calendars. The quizzes are due **every Tuesday, Thursday, and Sunday evening** throughout the entire semester. There will almost always be multiple videos with quizzes due on a particular day, which together will add up to 100 quiz points for that day. Together with all of the other quizzes throughout the semester, they will be 10% of your final grade when they are all added together. **If you do not keep up with the quizzes, you could drop a whole letter grade or more, just based on the lost points!**

Top Hat Questions:

- You will have multiple-choice questions to answer using Top Hat as part of your homework that will be due every Sunday, Tuesday, and Thursday night.
- These questions are for me (and for you) to discover what you do and do not understand, as well as to help you study for the exams.
- There will be multiple Top Hat questions to answer on a particular day, which together will add up to 100 Top Hat points for the day.
- Together with all of the other Top Hat questions throughout the semester, they will be 5% of your final grade when they are all added together.
- **The Top Hat questions could make the difference between one letter grade and another!**
- Please note: **when you register for Top Hat, you are required to use your Patriots email address as your email address.** Please do not give Top Hat any other email addresses.

Exams:

- There will be three exams this semester.
- They will be open-book, but with a strict time limit of 50 minutes.
- You are not allowed to work on your exam with anyone else, to talk to anyone else about your exam, to help anyone else with their exam, or to accept anyone else's help with your exam. **Each person must work on their own exam by themselves, completely alone.**
 - If you are caught working with anyone else on an exam, you will receive a zero for that exam and so will the person who was working on it with you or helping you.
- **Each person's exam is different**, because each person's questions are drawn from a test bank of hundreds of questions.
 - The exams are hard if you haven't studied a lot.
 - You won't have time to look things up. On average, you will only have one minute to answer each question!
 - Study just as hard for these exams, and memorize things just as much for these exams, as you would for any regular closed-book exams.
- The exams will be taken during regularly-scheduled class times. You must be in class, in person, on exam days, just like on any other class days.
 - But if you're sick, please let me know and I will arrange for you to take the exam at home instead.
- The exams will be taken on your own devices, which can be a smartphone, laptop, or tablet (iPad or similar). So be sure to bring your preferred device to class on exam days.

Final Exam:

- **All of the information above for the regular exams also pertains to the final exam.**
- The only differences are:
 - The final exam will be longer. Rather than 50 minutes, you will have two hours.
 - Rather than 50 questions, there will be 100 questions.
 - The final exam will be cumulative, meaning that it will cover everything from throughout the entire semester.
- The final exam will be on Monday, April 29th from 8:00 – 10:00am.
 - The exam will be taken in our normal classroom. You must be in class, in person.
 - But if you're sick, please let me know and I will arrange for you to take the final exam at home instead.

Graded Assignments: There will be many assignments this semester, but I will only grade some of them. I won't tell you which ones I am grading, because I want you to do your best on all of them. **If you don't keep up with the assignments, you could drop a whole letter grade or more just based on the lost points!**

Extra Credit: There will be very little extra credit offered this semester, if any, so please be sure to do your best on every assignment.

Grade grubbing: Grade grubbing will not be tolerated. I have quoted some relevant passages below about grade grubbing. They come from an excellent website that I recommend you read:

<https://www.math.uh.edu/~tomforde/GradeGrubbing.html>

Grade Grubbing (also called "grade begging" or "grade lawyering") is the act of a student going to a professor and asking for a grade to be raised for no legitimate reason. Often the student argues that they feel their work was "not graded fairly", or they made only a small mistake and should get more points, or they knew what they were doing even though they gave the wrong answer. Grade grubbing often involves asking for detailed justification of why certain points were taken off, questioning subjective aspects of grading (e.g., Why is this problem worth 5 points and this one worth 7 points?), and wearing down the professor by arguing, begging, and pleading until they finally relent and increase the student's grade.

...In addition, grade grubbing presents a very negative image of you: it indicates that you do not care about learning the material, and that all that matters to you is your grade in the class, even if you get that grade unfairly or when you do not deserve it.

Grade grubbing greatly affects the way your professors view you and the way they will treat you in the future. If you challenge your grade without a good reason, you will probably not be remembered fondly when you ask that professor for a recommendation...

...If an obvious error has been made in grading, such as points added incorrectly or a clearly correct answer was inadvertently marked wrong, then by all means talk to the professor and they will likely change your grade immediately. Likewise, if you don't understand why you lost points, or want clarification (not justification) of the grading, most professors are happy to talk with you. **And, if you want to discuss the material, learn what you did wrong, or discuss how to do better on future work, most professors will probably be thrilled to speak to you about this.**

However, if you are going to approach a professor who has spent their life studying, teaching, and doing research on a particular topic, and then argue that their decision of how to grade or award points should be changed to what you say it should be, then you better be prepared with a strong and convincing argument.

Source: <https://www.math.uh.edu/~tomforde/GradeGrubbing.html>

Academic integrity: Cheating or any other type of academic misconduct will be reported to the university administration, and at minimum will result in failure of the course.

Class schedule (subject to change):

Lecture Topics

Introduction

Plants and People

Plant Cells

Photosynthesis: Overview

Plant Structure, Growth, and Development

Stems and Materials Transport

Roots and Plant Nutrition

Leaves

Photosynthesis: Different Types of Photosynthesis

Plant “Behavior”

Reproduction and Life Cycles

Plant Diversity: Seedless Plants

Plant Diversity: Gymnosperms

Plant Diversity: Angiosperms

Animal-Plant Coevolution

Tentative exam schedule (subject to change):

Exam 1: Friday, February 9th

- Introduction
- Plants and People
- Plant Cells
- Photosynthesis: Overview

Exam 2: Friday, March 8th

- Plant Structure, Growth, and Development
- Stems and Materials Transport
- Roots and Plant Nutrition
- Leaves
- Photosynthesis: Different Types of Photosynthesis

Exam 3: Friday, April 12th

- Plant “Behavior”
- Reproduction and Life Cycles
- Plant Diversity: Seedless Plants
- Plant Diversity: Gymnosperms

Final Exam: Monday, April 29th

- The final will be ***cumulative*** and cover:
 - Everything from the entire semester, as well as:
 - Plant Diversity: Angiosperms
 - Animal-Plant Coevolution

Top Hat

We will be using Top Hat Pro (www.tophat.com) for class participation. You will be able to submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or through text message. For instructions on how to create a Top Hat account and enrol in our Top Hat Pro course, please refer to the invitation sent to your school email address or consult Top Hat's Getting Started Guide (<https://bit.ly/31TGMLw>).

If you already have a Top Hat account, go to <https://app.tophat.com/e/559210/> to be taken directly to our course. If you are new to Top Hat, follow the link in the email invitation you received or...

- Go to <https://app.tophat.com/register/student>
- Click "Search by school" and input the name of our school
- Search for our course with the following join code: 559210

If a paid subscription is required, it will be listed at checkout when you enroll in our Top Hat Pro course.

Should you require assistance with Top Hat at any time please contact their Support Team directly by way of email (support@tophat.com), the in-app support button, or by calling 1-888-663-5491. Specific user information may be required by their technical support team when troubleshooting issues.

The UT-Tyler bookstore also has Top Hat licenses that you can purchase using student loans.

Please note: **when you register for Top Hat, you are required to use your Patriots email address as your email address.** Please do not give Top Hat any other email addresses.

Student Resources and University Policies: These can be found on the Canvas course page under “Modules” → “Course Information.”