

## **Syllabus BIOL 3139 – 002**

### **Plant Biology Lab**

#### **Spring 2024**

**Meeting Times:** Wednesday 2:00 PM – 4:50 PM

**Location:** BEP 128

**First Day of Class:** Wednesday, January 24<sup>nd</sup>

**Last Day of Class:** Wednesday, April 24<sup>nd</sup>

#### **Instructor:**

**Dr. Joshua Banta**

**Director, Center for Environment, Biodiversity, and Conservation**

**Professor, Department of Biology**

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

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**Office Hours:** M/W/F 10:00-11:00 am or by appointment or simply call my phone number

**Teaching Assistant:** Rachel Leicher

**Email:** [rleicher@patriots.uttyler.edu](mailto:rleicher@patriots.uttyler.edu)

**Office:** BEP Room 118

**Office Hours:** Tuesday/Wednesday 12:00-1:30 pm and by appointment

**Course Description:** This laboratory course focuses on plants and on how we can scientifically study the natural world using them. The goals of this laboratory course are for students to be able to recognize different types of plants and different plant tissues, and to be able to test scientific hypotheses using plants. The curriculum will emphasize the scientific method and hands-on activities.

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

- 1) Understand what a hypothesis is, and formulate your own hypotheses
- 2) Understand the steps of the scientific method and be able to follow them systematically
- 3) Present scientific results in a concise and informative format
- 4) Recognize different types of plants and different plant tissues, at different points in development

**Required Materials (Only Available at the UT-Tyler Bookstore):**

*Plant Biology Laboratory Manual*, published by Prentice Hall (by Almuth Tschunko).

**Grading:**

Participation: 5% of the final grade when added together

Lab worksheets: 15% of the final grade when added together

Lab report: 20% of the final grade when added together

Midterm: 25% of the final grade

Quizzes: 10% of the final grade when added together

Plant Press Project: 25% of the final grade when added together

Total: 100%

100 – 90% = A    89 – 80% = B    79 – 70% = C    69 – 60% = D    < 60% = F

**Quizzes:** This is how you will receive your weekly participation score. The quizzes will be presented to you at the beginning of class on the projector screen. You will write your answers on a separate sheet of paper and turn in your answers. From your submission, you will receive a quiz score and the physical document will be used to record your attendance for that week. Tentatively, there will be a quiz every week that we meet for lab. Together with all the other quizzes, in all the other weeks, this will be 10% of your final grade when they are all added together. THERE WILL BE NO MAKE UP QUIZZES. If you are absent for lab or are late and miss the quiz, there will not be any make up opportunities. At the end of the semester, one quiz grade will be dropped.

**Lateness/Leaving Early/Absence:** You are required to be at lab on time every class period and to stay the entire class period. Failure to do so may result in a loss of points up to and including all of the day's participation points and all of the points on all assignments that were handed in that day. Absences will be excused at the instructor's discretion and there must be documentation.

Valid excuses include a sporting or other university-related event, a death in the family, or an illness affecting yourself or someone you must provide care for (such as a spouse or a child). Car troubles may sometimes be excused at my discretion, provided there is documentation from a police official (such as an accident report) or a mechanic's shop that covers the dates in question. Valid excuses **do not** include oversleeping or work schedule problems. If you miss class because you or someone you provide care for was ill, you must provide a doctor's note listing the dates affected. This means you or your loved one will need to visit the doctor on the day you are absent (or earlier) so that you can get a doctor's note.

If you must be late, leave early, or will be absent because of a sporting or other university-related event, you must inform the instructor of the day and time of the conflicting event ONE WEEK IN ADVANCE. Failure to do so may result in a loss of points up to and including all of the day's participation points and all of the points on all assignments that were handed in that day.

**Worksheets:** Most laboratory exercises will have a **worksheet due at the end of each lab period**. Each one will be worth 100 points. You must do your own work! Every person is expected to answer all of the questions on their own, in their own words. You are allowed to work together and decide what answers you think are correct, but then each person must write down the answers on their own and in their own words. The rules about copying and quoting apply. You are not allowed to share your answers with others in your group and ask them to change the wording. This is still considered copying. Together with all of the other worksheets, in all the other weeks, this will be 15% of your final grade when they are all added together.

**Lab Report:** There will be one lab report during the semester, worth 100 points. The format of the lab reports will be explained in lab. Please follow this format carefully. The goal is to write a formal scientific paper where you set up the hypothesis, explain your

methods, concisely present your results, and discuss your findings as they relate to the hypothesis. Just like the worksheets, each person is expected to write their own lab report, in their own words. You are allowed to work together and come up with answers together, but each person must write everything out on their own and in their own words. People who hand in identical or nearly identical lab reports will only receive partial credit (a maximum of 100 points divided by the number of identical lab reports). You are not allowed to share your lab report with others in your group and ask them to change the wording. This is still considered copying.

**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.

## COVID

It is important to take the necessary precautions to ensure a healthy and successful year. UT Tyler continues to urge you to protect yourselves against the flu, COVID and any new threats that may be developing. Be diligent about preventive measures such as washing hands, covering sneezes/coughs, social distancing and vaccinations, which have proven to be successful in slowing the spread of viruses. Encourage those who don't feel well to stay home, and if they show symptoms, ask them to get tested for the flu or COVID. Self-isolation is important to reduce exposure ([CDC quarantine/isolation guidelines Links to an external site.](#)). Please work with your faculty members to maintain coursework and please consult [existing campus resources Links to an external site.](#) for support.

## Weekly Lab schedule (subject to change):

<u>Topic</u>	<u>Calendar</u>	<u>Lab Manual</u>	
<b>No Lab</b>			Week 1 – Jan 16
Intro/ Plant Taxonomy		Handout	Week 2-Jan 22
Seed Germination 29		Ch. 6	Week 3 – Jan
DNA Extraction/Nanodrop		Handout/Ch. 4	Week 4 –Feb 5

Thigmomorphogenesis	Ch.	Week 5 - Feb 12
Tree Investigations	Ch. 9	Week 6 & 7 – Feb 19 & 26
Diversity: Seedless Plants	Ch. 16	Week 8–March 4
<b>Spring Break</b>	<b>March 11-15</b>	
Diversity: Seed Plants 18	Ch. 17	Week 9 – March
Diversity: Flowering Plants (Reproduction)	Ch. 17 & 18	Week 10 – March 25
Diversity: Flowering Plants (Seeds and Fruits)	Ch. 18	Week 11 – April 1
Thigmomorphogenesis Data Analysis April 8		Week 12 –
Exam Review		Week 13 – April 15
<b>**Exam</b> April 22		Week 14-

\*\*These assignment dates may change. All due dates are subject to change at the discretion of the instructor.

**Attendance and make-up policy:** Attendance is mandatory. ***No late work will be accepted.***

There are strict deadlines to follow that require your regular participation. The deadlines are **not** flexible. You are expected to plan ahead and complete your work on time. You are expected to **not** wait until the last minute. Problems with your laptop/desktop/tablet or internet connection or Canvas, problems with scheduling for your job(s) or other classes, car problems, problems with child care, or personal or medical problems will not be accepted excuses for missing the deadlines. In general **no** excuses will be accepted, except under extraordinary circumstances at my sole discretion. Missing the deadlines means you will receive zeros on the missed assignments and these zeros cannot be changed. ***There will be no extensions on assignments. Make up assignments will only be allowed for valid excuses, as described above, and at the instructor's sole discretion.***

**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.

**Citations:** When writing your lab reports, you will be consulting other sources. There will be strict rules about what other sources are allowed and how to cite these sources in your paper. The rules about copying will apply as well, and so will the penalties, and this includes the rules forbidding quoting, even with quotation marks. More detailed rules for the lab reports will be provided separately.

**Unicheck:** All assignments and appeals that you hand in will be checked for copying using a program called

UncheckTM. 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.

**COVID:** Illnesses involving yourself and/or others will generally **not** be considered excuses for missing the deadlines to turn in assignments, in which case you will receive zeros on those assignments and those zeros cannot be changed. This is because I expect you to do the work ahead of time and not to save it for the last minute.

However, if you are unable to meet the requirements for the course specifically because of some specific disruptions related to COVID, I may give you a grade of "incomplete" for the course, at my discretion. For this to be possible, you will need to discuss the situation with me as soon as you can.

If I allow it, then the procedure will be as follows:

- When conditions improve, you will be able to continue making progress in the course, on your own, until you have completed all of the required assignments.
- If you do not finish the assignments by that point, your "incomplete" grade for the course will be changed to the grade you earned up to that point, with zeros factoring into your grade for everything else that is left unfinished, and you will no longer be given the opportunity to finish the rest of the work or to change your course grade beyond that point.

The **only** COVID-related disruptions I may consider are:

- You or someone you care for gets COVID (and let's all wish this doesn't happen!!!), and this renders you unable to keep up with the course. In this case, I will require a doctor's note that references the date of your positive COVID test or diagnosis and/or the date of the positive COVID test or diagnosis of the person you are caring for.
- COVID disrupts your access to consistent, reliable, high-speed internet and/or to consistent, regular usage of an internet-enabled laptop or desktop computer on which to access high-speed internet.

**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.

**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://marktomforde.com/academic/undergraduates/GradeGrubbing.html>

## **Students Rights and Responsibilities**

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link:

<http://www.uttyler.edu/wellness/StudentRightsandResponsibilities.html>

## **Grade Replacement/Forgiveness**

If you are repeating this course for a grade replacement, you must file an intent to receive grade forgiveness with the registrar by the 12th day of class. Failure to do so will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates will receive grade forgiveness (grade replacement) for only three course repeats; graduates, for two course repeats during his/her career at UT Tyler.

## **State-Mandated Course Drop Policy**

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the 12th day of class (See Schedule of Classes for the specific date).

Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Registrar's Office and must be accompanied by documentation of the extenuating circumstance. Please contact the Registrar's Office if you have any questions.

## **Disability Services**

In accordance with federal law, a student requesting accommodation must provide documentation of his/her disability to the Disability Support Services counselor. If you have a disability, including a learning disability, for which you request an accommodation, please contact Ida MacDonald in the Disability Support Services office in UC 282, or call (903) 566-7079.

## **Student Absence due to Religious Observance**

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

### **Student Absence for University-Sponsored Events and Activities**

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

### **Social Security and FERPA Statement:**

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

### **Emergency Exits and Evacuation:**

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.