Syllabus BIOL 3139 – 001
Plant Biology Lab
Fall 2020
Meeting Times: Mondays, 2:00 – 4:50 pm
Location: Biology, Education and Psychology Building (BEP) room 128
First Day of Class: Monday, January 13th
Last Day of Class: Monday, April 20th

Instructor:
Dr. Joshua Banta
Director, Center for Environment, Biodiversity, and Conservation
Associate Professor, Department of Biology
Office: Hudnall, Pirtle, Roosth Building (HPR) Room 129
Phone: (903) 565-5655
Email: jbanta@utttyler.edu
Office Hours: MWF 10:00 – 11:00 am or 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):

Grading:
Quizzes: 11 quizzes total, 5 points per quiz = 55 points total
Participation: 5 points for participation each week, over the course of 11 weeks = 55 points total
Lab presentation = 30 points total
Lab worksheets: Eight lab worksheets, 25 points each = 200 points
Lab reports: Two lab reports, 100 points each = 200 points
Lab practicum: One comprehensive lab practicum = 100 points
Total: 640 points

573 – 640 points = A  
509 – 572 points = B  
445 – 508 points = C  
381 – 444 points = D  
< 380 points = F
Quizzes: You are required to check Canvas and figure out what you will be doing in lab each week, and then read the week’s lab ahead of time. Lab quizzes for each week will be posted on Canvas to be completed before 11 AM on the day of your lab. If you do badly on the quizzes, you could drop a whole final letter grade based on the lost points!

Participation: You are required to be on time in lab every day and to stay the entire time until the instructor lets you go. The instructor will also monitor your participation within your lab group. By being frequently late or frequently leaving labs early (unexcused), and/or by not participating in your lab group, your final grade could drop by a whole letter based on the lost points!

Lab Presentation: Groups of two or three students will take turns presenting the background for each week’s lab. Each person in the group will be graded separately, and each person can get up to 30 points for their part of the presentation. The presentations will be in the form of PowerPoint slides. The required format and content will be demonstrated during the first week of lab. Note that it is not okay to share your presentation with another group. If two groups (for example in two different lab sections) present identical or nearly identical presentations, group members in both groups will only be eligible for partial credit (a maximum of 15 points per person). If a group copies a presentation from a previous year’s lab, group members will receive no credit.

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.

Worksheets: Most laboratory exercises will have a worksheet due precisely one week following the date of the exercise, before 2 PM. You will use your lab notebook to go through the exercises in class and then use the TurnItIn link on canvas to turn it in before the due date/time. This should be in a Word document form. There will be 8 lab worksheets in total, worth 25 points each. 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. People who hand in identical or nearly identical worksheets will only receive partial credit for the assignment (a maximum of 25 points divided by the number of identical worksheets). 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.
**Lab Reports:** There will be two lab reports during the course of the semester, worth 100 points each. No worksheets will be due when there is a lab report due. 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.

**Lab Practicum:** At the end of the semester, there will be a lab practicum. It will be a combination of short-answer questions and lab stations where plants, plant tissues, and plant cells must be identified.

**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.
**Weekly Lab schedule** (subject to change):

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<thead>
<tr>
<th>Topic</th>
<th>Lab Manual Chapter</th>
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<tbody>
<tr>
<td>Introduction</td>
<td>Ch. 1</td>
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<tr>
<td>Microscopy and Plant Cells</td>
<td>Ch. 2</td>
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<tr>
<td>Photosynthesis</td>
<td>Ch. 3</td>
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<td>Seed Germination</td>
<td>Ch. 6</td>
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<tr>
<td>Plant Development</td>
<td>Ch. 7</td>
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<tr>
<td>Tree Investigations</td>
<td>Ch. 9</td>
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<tr>
<td>DNA in Plant Cells</td>
<td>Ch. 4</td>
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<tr>
<td>Leaves and Roots</td>
<td>Chs. 10 and 11</td>
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<td>Diversity: Seedless Plants</td>
<td>Ch. 16</td>
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<td>Diversity: Seed Plants</td>
<td>Ch. 17</td>
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<tr>
<td>Diversity: Flowering Plants (Reproduction)</td>
<td>Ch. 18</td>
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<tr>
<td>Diversity: Flowering Plants (Seeds and Fruits)</td>
<td>Ch. 18</td>
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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.