INTRODUCTION TO LIFE SCIENCES I
BIOL 1301
Fall 2018

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Office hours: M - 11:30AM-12:30PM, R- 2:00PM-3:00PM

Course Objectives: Biology 1301 is the first of two courses designed to provide a thorough introduction to biological science. The goal of the course is that students learn important facts about the natural world and understand the significance of these facts within the context of major biological concepts.

Student Learning Outcomes: After this class you should be able to…
• Define biology and evolution
• Contrast the types of biological Literature and utilize search engines to engage with it.
• Contrast scientific thought from pseudoscience
• Describe the characteristics of living organisms
• Comprehend and apply the scientific process
• Analyze the chemical nature of life
• State and discuss the cell theory
• Compare and contrast prokaryotic and eukaryotic cell structure
• Explain and diagram cellular metabolic pathways
• Analyze the implications of diet on health
• Compare and contrast mitosis and meiosis
• Describe how cell division and cancer are linked.
• Diagram and solve a variety of genetic problems
• Understand the significance of biology to you and your life
• Apply the knowledge you have acquired to making educated decisions as a member of society

Required Materials:

Online Workbook: MasteringBiology: During the semester you will be assigned chapter readings and homework questions to complete during the semester. The percentage grade for all of the homework assignments can be used to replace your lowest regular exam (not including final exam) during the semester. Assignments corresponding to the chapters covered by each exam are due on the review days. These assignments will use the Mastering Biology Online Exercises (www.mastering biology.com) that comes with your textbook. This software provides you a very valuable tool to use while studying for this course. MasteringBiology will provide you with tutorials and activities that integrate art from the textbook, and hopefully aid in your comprehension of the topics covered. You will need a code to register for this class that will be listed on the Canvas website and given to you during class.
Turning Technologies (Clicker Devices): For this course, you will need to purchase a clicker from Turning Technology. This clicker will be used to answer questions during the semester and for taking exams. During the semester you will be responsible for bringing the Turning Technologies Response Pad to answer questions during the lecture, as well as to take attendance for each class period. At the end of the semester student responses will be used to assign clicker points participation score at the end of the semester (this includes points given for attendance). These clickers are also required to take all of the exams during the semester; without the right clicker you will not be able to complete the exams. QT2 is recommended. Clickers can be obtained from the bookstore, or directly from Turning Technologies when you apply for a license. If you have a Turning Technology clicker that is not a QT2, please inquire with the instructor if it will work.

It is your responsibility to remember to bring your clicker to every class.

You will need to make sure to purchase a response pad by the 8/31/18 class period.

Grading:

<table>
<thead>
<tr>
<th>Possible Pts</th>
<th>Points</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Regular Exams (3)</td>
<td>297</td>
<td></td>
</tr>
<tr>
<td>Final Exam (comprehensive)</td>
<td>150</td>
<td></td>
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<tr>
<td>Homework (4)</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Science Round ups (10)</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Group Participation</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Clicker responses</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Total Points</td>
<td>737</td>
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*MasteringBiology assignments can be used to replace the lowest regular exam score (Final exam not included). See below for more information.

Exam policy: There will be three regular exams during the semester and a comprehensive final. The first three exams will consist of 33 questions (3 points each), while the comprehensive final will consist of two 75 questions (3 points each). All exams will be multiple-choice questions. The comprehensive exam will contain new and old content (terminology seen
on all old exams - but not necessarily the exact questions). The majority of questions will be taken from lecture content; however content from the text are fair game. Be warned that I DO NOT curve exams, so you do not need to ask!

**Make-up Exams:** If you are unable to take an exam when scheduled, a make-up exam will be arranged **ONLY** if the instructor is notified and arrangements are made **IN ADVANCE**. Make-up exams may consist entirely of essay questions.

**Homework:** Throughout the semester you will be assigned homework problems that you will answer on your own time and turn in for a grade.

**A Cool Glass of Water**
30 points. For this assignment, you will be asked to do an experiment at home. This experiment will require you to use Ice, Salt, and Water. Then answer several questions. The answers to these questions should be typed, and uploaded to Canvas on the assigned date. Late Assignments will loose points for each day they are late.

**Understanding your nutrition**
50 points: For this assignment you will be asked to track your diet for 7 consecutive days and analyze it using the diet tracker program chronometer (https://cronometer.com/blog/cronometer-the-nutrition-super-tracker/) also available as a free phone app for Apple or Google Devices. Please note, for this assignment, you do **not** need to pay money for this app/website. There are many advertisements that suggest you to buy additional upgrades. You will not need them for this project.

**HHMI DNA Fingerprinting Module: Case 1 and Canvas Quiz**
(10 points) Goto the website: https://www.hhmi.org/biointeractive/csi-wildlife. Click on play and learn. Watch the Introductory video “CSI Wildlife.” Then move onto Case 1. Please complete the modules (The Crime Scene, How DNA Profiling Works, and Finding a Match). Then answer goto your Canvas page, and take the Quiz on DNA fingerprinting.

**Your Science Video**
60 points. For this assignment, you will work in assigned groups up to 4 people. You should pick a topic in Biology that interests you, and make a video presentation that informs the class on this topic. This does not have to be a topic that we cover in class, but it can be. Please discuss options for the topic with your group, and clear the topic with Dr. Bill by October 22, 2018. The winning three groups will receive 10 points extra credit for first, 7 points extra credit for second and 5 points extra credit for third.

**Science Round up:** Changes in journalism have decreased the amount of science that is reported in the popular press; however, there are still several shows that focus on distributing science to the public. For this assignment, you will listen to your choice of Radio Programs (from the list of podcasts). You will need to answer the following points for each Round up.

1. Which podcast/date did you listen to?
2. What was one biology story that you found interesting?
3. What was their hypothesis? If not explicit, you may need to infer their hypothesis.
4. How did the story correlate with topics that have been covered in class?
5. What was one question that you had based on one of the stories?

**News services:**
Science Friday: http://www.sciencefriday.com
Science In Action: http://www.bbc.co.uk/programmes/p002vsnb
Quirks and Quarks: http://www.cbc.ca/radio/quirks
The Science Show: http://www.abc.net.au/radionational/programs/scienceshow/
The Naked Scientist: http://www.thenakedscientists.com

**Journal Specific:**
The Science Podcast: http://www.sciencemag.org/site/multimedia/podcast/
The Nature Podcast: http://www.nature.com/nature/podcast/
Listen to the Lancet: http://www.thelancet.com/audio
PNAS Sessions: http://www.pnas.org/site/podcasts/podcasts.xhtml
Cell Podcast: http://www.cell.com/podcast

**Canvas:** Students should log onto Canvas regularly, and carefully read all announcements. Canvas and student email should be checked DAILY for new announcements or messages. On Canvas you will find lecture outlines, reviews for exams, videos, discussion board posts, and much more that will be very helpful for you as you take this course. Another really helpful tool is that all course grades will be in Canvas, so students will be able to view and calculate their current course grade at any time.

**Attendance:** Attendance is essential to success in this class. If you miss class it is your responsibility to contact another student (not the instructor) to get notes and other announcements made during class or listen to the material through Canvas. There will be attendance points determined through the answering of clicker questions during the course. This will be calculated based on the number of clicker questions you answer during the semester (see Turning Technologies for more information on the clickers).

**Supplemental Instruction (SI):** Group study sessions and individual tutoring are often offered for this class, led by specially trained students. Students that participate in these sessions regularly score significantly higher on exams. Please check with the PASS Tutoring center (Library 401) to see which options are available, and to decide which might be best for you.

**Academic Integrity:** Students should be aware that absolute academic integrity is expected of every student in all undertakings at The University of Texas at Tyler. Failure to comply can result in strong university-imposed penalties. Be forewarned that possession of anything containing course content will be considered cheating, whether or not you actually refer to it during the exam. Also be aware that TALKING during an EXAM to anyone other than the instructor or proctor will automatically be considered cheating. It does not matter what you were talking about. This includes the use of cell phones (even if they call YOU) or any other electronic device that could be used to record test material. Violation of this policy will be considered cheating and treated accordingly. Penalties for cheating include anything from a zero on the exam or quiz during which the cheating occurred, up to an F for the course in question, at the discretion of the instructor.

**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://www2.utttyler.edu/wellness/rightsresponsibilities.php
Grade Replacement/Forgiveness and Census Date Policies: Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at http://www.uttyler.edu/registrar. Each semester’s Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar.

Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date is the deadline for many forms and enrollment actions that students need to be aware of. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a “W” grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

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 census date (See Academic Calendar for the specific date).

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

Disability Services: In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University offers accommodations to students with learning, physical and/or psychiatric disabilities. If you have a disability, including non-visible disabilities such as chronic diseases, learning disabilities, head injury, PTSD or ADHD, or you have a history of modifications or accommodations in a previous educational environment you are encouraged to contact the Student Accessibility and Resources office and schedule an interview with the Accessibility Case Manager/ADA Coordinator. If you are unsure if the above criterion applies to you, but have questions or concerns please contact the SAR office. For more information or to set up an appointment please visit the SAR office located in the University Center.

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.

All Exam dates are Tentative, and subject to change