

All SAINTS EPISCOPAL SCHOOL COLLEGE BIOLOGY SYLLABUS (ALSO TAUGHT AS UNIVERSITY OF TEXAS-TYLER BIOLOGY 1306 LECTURE, BIOLOGY 1106 LAB) 2024/2025 INSTRUCTOR: DR. DAVID LAMBERT

Note that an alternate syllabus, tailored to the requirements of UT-Tyler, will be located on the UT-Tyler class Canvas page. You will receive separate information on how to access that page (along with the syllabus).

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COURSE DESCRIPTION: This is a college-level course in biology whose purpose is to give students college credits that can be applied to University of Texas-Tyler and many other (though not necessarily all) colleges and universities. Unlike other biology courses, at least a basic pre-existing familiarity with biology from a previous course is assumed. Broad topics that will be covered include scientific research methodology, biological molecules, cell structures and function, cell energetics (i.e. cell respiration, fermentation, and photosynthesis), protein synthesis, gene regulation, cell division, Mendelian and non-Mendelian genetics, viruses, and organism development. Labs will be an important component of this course, though labs will not be done every week. Note that this description differs in key ways from that which applies to the University of Texas-Tyler aspect of the course, which is provided in the separate University of Texas-Tyler syllabus.

COURSE PRE-REQUISITES: Some introductory biology course (preferably Honors Biology)

TEXTBOOKS:

L. Urry, M. Cain, S. Wasserman, P. Minorsky, and J. Reece. 2014. *Campbell Biology in Focus*. 3nd Edition. Pearson Benjamin Cummings (lecture); J. Coleman. 2020. *Cell Properties and Processes: Biology 1106 Laboratory Manual*. University of Texas-Tyler.

You will receive information on how to pay for and then access this online lab manual in class.

COURSE SUPPLIES

Students will record and keep class notes in either a bound paper notebook (highly recommended) or a digital device. Note that if a student chooses to keep notes on a laptop or similar device, it is critical that the notes be backed up periodically and safely stored. In addition, students are required to have a folder or ring binder in which all class papers/documents (e.g. handouts, quizzes, homework assignments, etc.) will be

stored. A set of colored pencils is useful but not required. Calculators will be needed for some class activities. Note that while required, the lecture textbook need not be brought to every class session (the instructor will give advance notice if it is needed for a given class activity). Given that the lab textbook is only available in digital format, students need to bring an electronic device (smart phone, tablet, laptop computer) to every lab period using a lab from this book (your instructor will give you advance notice about these labs). Students will be required to use Google productivity applications for some assignments, in particular Google Docs, Sheets, and Slides.

COURSE EVALUATION: Recent changes in state law have created new requirements in the core curriculum courses offered by Texas state universities and colleges. Learning outcomes that these courses are now expected to develop include critical thinking, communication, empirical and quantitative analysis, teamwork, social responsibility, and personal responsibility.

Your All Saints semester grade in this class will be based on five factors:

- Tests (40%)
- Quizzes (20%)
- Major assignments (15%)
- Lab Quizzes (15%) (see below)
- Minor assignments (miscellaneous small writing and video assignments) (10%)

At least 2 tests will be given each quarter. Each test will consist of multiple choice, short answer, and long answer questions, a number of which will require deductive reasoning. At least one week's notice will be given before each test. Quizzes will be given on a schedule of roughly one a week, and will be **in most cases** announced in advance. Supplementary reading is a standard part of any college biology course, and unannounced quizzes covering assigned readings may be given at the start of class on days when reading assignments are due. The lab grade is discussed in a separate section below. Periodically short writing assignments and videos will be assigned, which will count towards your All Saints but not your UT-Tyler lecture course grade (all other assignments will count towards both). Typically, there will be weekly homework assignments (mostly minor, occasionally major); these will be posted in the class My All Saints page on Friday or Thursday of one week, and be due by the Friday of the next week. In most cases, these will be handed in through the assignment. Following the policy in the All Saints student handbook, these assignments will be considered late as of Monday, and points will be deducted as the number of late days accumulates until the assignments are ultimately give a zero in the gradebook. Unless there are special mitigating circumstances, these zeros cannot be removed.

MIDTERM AND FINAL EXAMS

There will be a midterm exam at the end of the fall semester. However, this exam will count only towards the All Saints course grade, and will have no bearing on that of UT-Tyler. In late April there will be a cumulative course final exam that will count towards both the UT-Tyler lecture course grade (25% total) and the All Saints semester course grade (15%). The course will be considered completed after this final exam, though there may be assignment opportunities for boosting the All Saints course grade afterwards (this will mainly apply to juniors).

LAB

Lab is a complicated issue in this class, because at the high school level it is incorporated directly into the semester grade, while at UT-Tyler it is considered to be an independent course with a grade separate from that of the lecture course. There is no formal lab grade built into the All Saints course gradebook. Rather, lab quizzes are given for select labs, which are included as part of the overall quarter grade. Quizzes will be based on material in the assigned lab manual reading, and not explicitly include lecture material. The UT-Tyler lab course grade will be determined at the end of the course in the spring, and will based on the following factors: quiz grades (25%), a lab test (this will cover all labs that are associated with quizzes, and will be given near the end of the course), (45%), and a lab research paper (25%). The lab research paper will be based on data gathered by the enzyme lab, which will be conducted at UT-Tyler early in the spring semester. Note that neither the lab test nor the lab research paper will be included in the All Saints course grade.

LATE HOMEWORK/ASSESSMENT POLICY

The class policy on late homework and missing quizzes/tests follows that of the school handbook, and is repeated below.

When a student has an excused absence from school, he or she generally has two days per one day of absence to make up for the missed work. After this time period the assignments are considered late and will follow the late and make-up work policy. However, long-term assignments which have been announced in advance, such as term papers and major projects, must be turned in on their original due dates at the beginning of the class period in which they are due. Similarly, tests announced in advance must be taken the day the student returns to school if no new material has been taught. Students missing classes for sports competitions, school-sponsored activities or planned family trips are responsible for communicating with each of their teachers about the work that will be missed and to obtain any assignments possible.

Keep in mind that when an assignment is marked as missing in the gradebook, it will be given a zero with the missing box on the assignment checked. A missing check indicates that the assignment can still be handed in, granted with a lateness penalty unless an excused absence is involved. Once the missing box is unchecked, the zero has become permanent, even if the assignment is handed in later.

Any daily assignments due the day of the departure, as well as any long-term projects due during the duration of the absence, must be turned in prior to departure. If a student attends any part of the school day, he/she is responsible for any assignment due that day in all of his/her classes.

Due to our academic rigor, some assignments are assigned over school breaks. When possible the teacher will announce the assignment a few days before the start of the break or set the deadline a few days after returning from the break.

TEST REMEDIATION

Test remediation involves a failing score being boosted to a 70 (a minimally passing grade). Though there may be exceptions, for the most part remediation is intended to be used for tests. In order for a test to be remediated, the student must do a short (approximately 3 pages) research report on some topic relevant to the concepts covered on the test (the instructor will provide details on the topic scope and format as needed). Any remediation report is due the last regular day of the quarter in which the test was taken (late reports **WILL NOT** be accepted). Note that:

- 1) only **ONE** test can be remediated in a given semester, and
- 2) only test scores in the All Saints grade book can be remediated, **not those in the UT-Tyler grade book** (see below).

Keep in mind that extra credit is not available for either the All Saints or UT-Tyler courses.

ACADEMIC INTEGRITY

As in all ASES courses, academic integrity is paramount in this course. Two of the most commonly encountered integrity-related issues involve plagiarism and copying the work of classmates. A major part of each semester grade will come from a lab project paper utilizing referenced information sources, which creates an opportunity for plagiarism. Contrary to widespread belief, plagiarism is not simply using another person's ideas. Rather, it is using another person's ideas without giving that person credit for them. Using other people's ideas is a commonplace and even critical part of the scientific research and writing process; however, the source of that information must be provided in the new paper, a process that is formally referred to as citation. Citation must be given even when ideas are summarized, not just directly quoted. The issue of copying the work of classmates as an integrity violation is more complicated in this course than some others, because the lab projects are group-based and out of necessity will involve classmates copying from each other. Similarly, some labs may utilize worksheets that are completed jointly by lab group members. However, it is expected in these situations that all members in a group will contribute significantly to the writing process, rather than one group member doing all of the writing. Note that as part of the infographic project grades, team members will evaluate each other on their level of participation. For all other class assignments (e.g. written homework. participation assignments, etc.) copying the work of a classmate will constitute an integrity violation and be treated accordingly. Lastly, it is considered an integrity violation to use any artificial intelligence application (e.g., any version of Chatgpt) on an assignment unless given explicit permission by the instructor.

CLASSROOM EXPECTATIONS:

College biology is an extremely information dense course that out of necessity moves at a rapid pace. Missed attendance means you miss out on the covered material and we move on. If you fall behind you will find yourself frustrated and lost. Stay on course by making sure you come to every scheduled class. I am available before school or during my

planning periods for any extra help you may find yourself needing. Please make sure to ask for help before it becomes too late! Note that study guides over the different course topics covered are available in the relevant folders of Topics in the class My All Saints site.

PLEASE remember that this is a college credit class as well as a high school class. A grade of C on a high school transcript will probably have no bearing on a possible future application to a post-baccalaureate program (e.g. law school, medical school, or graduate school). However, this is not true for the course grade that will appear on your University of Texas-Tyler transcript, which will follow you for your entire post-secondary educational career. So, **PLEASE DO NOT TAKE THIS COURSE LIGHTLY**.

Though homework, including outside reading, will be assigned, it will not be assigned on a nightly basis such as is common for math and foreign language classes. Your standing homework assignment is to consistently read relevant sections in your textbook, and even more importantly **study your class notes**. Large amounts of material will be covered in this course, and if you diligently keep up with your notes you will find that studying for tests is manageable. On the other hand, if you ignore your class notes until just before a test, you will have to cram what may seem an overwhelming amount of information, and cramming seldom leads to a satisfactory test score.

You may use any means you like to take notes, including laptops, digital tablets, and hand-written notes. However, though not required, I highly recommend that you take notes in a paper notebook by hand. Abundant evidence exists that the act of physically writing information down (as opposed to typing) greatly enhances retention of that information. Also, I will utilize a number of hand-drawn figures and graphs while presenting class information, and these can be difficult to reproduce through digital means (though some applications can be astonishingly good for this). If you are going to take notes digitally, then it is crucial that you back up your note files. A corrupt file discovered the night before or a missing jump drive will not be a valid basis for postponing a test or quiz. Cell phones are covered in All Saints Student Handbook.

SAFETY IN THE CLASSROOM IS PARAMOUNT! The first unit covered in the class will deal with lab safety, and students are expected to follow every safety rule at all times. Violation of safety rules will result in disciplinary action, possibly severe if a student is placed in serious threat of injury. On a related matter, classroom equipment is to be treated with care and respect. Damage to class equipment/specimens due to excessive carelessness or willful mistreatment will result in disciplinary action. Food and drink are expressly forbidden in the classroom at all times (not just during lab activities). **Safety garb (goggles, lab aprons, and gloves) MUST be worn at all times during lab activities utilizing hazardous chemicals and/or hot devices or flame**. Goggles must be worn even by people wearing glasses. Students with long hair (meaning hair that extends below the base of the neck) must have their hair tied back during labs requiring safety garb. Some labs will likely be conducted on the campus of the University of Texas-Tyler, and these same safety rules will apply to this location. The University of Texas-Tyler has its own safety-related protocols, and these will be covered in a separate syllabus.

This class is a community, and like any community anywhere a necessity for it to properly function is **mutual respect and consideration among its members**. I promise, to the best of my ability, to treat all students with respect and courtesy, which includes giving all questions serious consideration and being willing to apologize when I make an error. By the same token, I expect courtesy and consideration from my students, which includes among other things electronic devices not being used inappropriately during class time and full attention (without talking) while I am presenting information to the class or attempting to guide a class discussion. If these expectations are met, the class experience will hopefully be as enjoyable as possible for all of us.

SPECIAL CLASS ISSUES RELATED TO UT-TYLER ENROLLMENT

Because you will have dual enrollment at UT-Tyler, in some respects this course will be very different from any course you have taken at All Saints. For example, you will have access to two class management pages, your My All Saints page and a Canvas page provided by UT-Tyler. Similarly you will have two email addresses, your All Saints one and one associated with UT-Tyler. It is important that you pay attention to these UT-Tyler components of the course, particularly email, as any unexpected errors/problems that occur could go unnoticed and create difficulties during the process of getting credit for the course at a college or university other than UT-Tyler (or even at UT-Tyler, should you decide to go there). Keep in mind that as enrolled UT-Tyler students you have privileges unavailable to other All Saints students, including availability of separate tutoring opportunities should you need them, access to UT-Tyler physical facilities (e.g. gyms, the library), and access to sporting events. In order to utilize these extra privileges, you will need to obtain a UT-Tyler student ID (Student Services will help you with this).

UT-Tyler Syllabus Addendum

The UT-Tyler course expectations mirror those of All Saints in most respects. However, there are some key differences.

1) The UT-Tyler course consists of two separate, independent sub-courses, one covering lecture and the other lab. **Each of these receives a separate grade based on separate assignments**.

2) Your UT-Tyler grades accumulate over the entire school year, with the course grade submitted at the end of April after you have taken the end of course (year-long cumulative) final exam.

3) UT-Tyler grades will be kept on a Canvas gradebook separate from that of All Saints. Some assignments (notably the group projects and the formal lab reports) will need to be directly uploaded into this Canvas page, where they may be accessed by UT-Tyler administrators for evaluation purposes.

Course evaluation, UT-Tyler Biology lecture course Exams: 50% Quizzes: 10% Group project: 25%* Final exam: 15% Course evaluation, UT-Tyler Biology lab course Exam: 45%* Quizzes: 25% Lab report: 30%*

*: grade is not included in the All Saints course gradebook