

Sample Syllabus BIOL 1308 Biology Fundamentals

Instructor:

Telephone:

E-mail:

Lecture Time and Location:

Office Hours:

Course Description:

An introduction to basic biological concepts including the metric system, physical and chemical properties of life, cell structure and function, cell reproduction, and metabolism. Critical thinking skills, study skills, and basic math skills are also included. This course is designed to prepare students to take the anatomy and physiology assessment tests, anatomy and physiology courses (BIOL 2304, BIOL 2305, BIOL 2404), and general biology courses (including BIOL 1408 and BIOL 1406). This course is not part of the core curriculum. This course may not transfer to other colleges and universities for college credit.

This is a newly redesigned section of BIOL 1308 that combines interactive learning modules with strong tutoring support to increase success for students pursuing a career in the health professions. Regular attendance and student participation in all activities are encouraged.

Co-requisites:

None.

Skills and Prerequisites:

This course has skill prerequisite R which means you must have reading skills at ACC placement skill level 5 or above or you must have passed a state-approved assessment test (TASP or COMPASS) in reading or you must be exempt from assessment through transcript hours from another college or you must have appropriate ACT, SAT, TAKS, or TASS scores. For more details see

<http://www.austincc.edu/support/assessment/assessmenteligibility.php>.

You do not have to bring proof of your skill levels—they are provided to the instructor during the first week of classes. If you do not have the skill prerequisite you will have to withdraw from the class.

Instructional Methodology:

This course uses best practices in teaching and learning, including a modified flipped classroom where students study online modules and take notes before class. Each class begins with a review of the material, followed by hands-on activities, case studies, etc. This is supplemented with tutoring and other activities to encourage each student to master the material.

Research has shown that adults learn differently from children. Children excel at memorizing whereas adults are much better at solving problems. By restructuring this course, we are able to help you learn in the way that your brain works best. Your learning will feel strange at first since you will begin to understand material more quickly and with less stress. Trust it; you are learning much better than the old lecture method.

However, for you to succeed, you will need stay on top of the modules and the other assignments. Do a little every day and you will learn the Biology you need for the next courses towards your educational goals.

Required Textbooks and Supplies:

Campbell Biology: Concepts and Connections 2e by Jane Reece. The textbook is available at the CYP Bookstore.

Common Course Objectives:

A list of objectives can be found at <http://www.austincc.edu/biology> (click on the “Common Course Objectives” link).

Student Learning Outcomes:**Course-Level:**

Specific skills and competencies expected of students who complete this course include:

- Describe basic physicochemical concepts that underlie the structure and function of cells
- Describe the structure and function of the four classes of biomolecules
- Describe the structure and function of eukaryotic cells and their organelles
- Describe the processes by which substances move into and out of cells
- Describe the structure and function of enzymes
- Discuss energy transfer in cells and the pathways of cellular respiration
- Describe DNA replication, protein synthesis, mitosis and meiosis
- Analyze, synthesize, evaluate and apply information
- Apply mathematical, logical and scientific principles and methods

General Education:

As a Core Curriculum course, students completing this course will demonstrate competence in:

- Demonstrating higher level critical thinking skills, solving problems, and following directions
- Directing their own learning activities to meet course objectives

Course Rationale:

This course was designed to provide the fundamentals of biology and critical thinking skills to prepare students for BIOL 2304 (Human Anatomy), BIOL 2305 (Human Physiology), BIOL 2404 (Intro to A&P), BIOL 1406 (Cellular and Molecular Biology) and BIOL 1408 (Introductory Biology—Unity of Life). This course is recommended as preparation for the anatomy and physiology assessment tests.

The following online modules will be completed in BIOL 1308:

- Module 1: Biological Hierarchy & Metric System
- Module 2: Basic Chemistry
- Module 3: Water & Acids and Bases
- Module 4: Biomolecules
- Module 5: Cell Structure and Function
- Module 6: Enzymes, Energetics & Cellular Metabolism
- Module 7: DNA Replication & Gene Expression
- Module 8: Cell Division
- Module 9: Body Systems

Attendance:

Regular and punctual class attendance is expected of all students. If attendance or compliance with other course policies is unsatisfactory, the instructor may withdraw students from the class. Each absence drops your test grade.

COURSE ORGANIZATION**For each Module you will**

1. Pick up the guided notes for the next class's module or download them from Blackboard.
2. Study the assigned modules on Blackboard (see the schedule) and take notes. Take the time to do the concept checks and go back and review if you don't understand a section. Understanding the module now saves you a lot of effort later.
3. Attend class ready to learn. We will review the module, answer questions and do interactive activities to help solidify your learning.
4. After class, take the Module quiz that is on Blackboard. You may take the quiz up to 2 times so you can learn from your mistakes the first time. It helps if you write down your answers.
5. Complete the objectives for the module before the test.

GRADING:

There are no + or – grades given at ACC, so the final calculated grades will be recorded as <60 = F; 60 - 69.4 = D; 69.5 – 79.4 = C; 79.5 – 89.4 = B; 89.5 – 100 = A. The grading rubric is as follows:

Grading Rubric	Points
17 graded class activities @ 10pts each	170 pts
23 quizzes @ 5 pts each	115 pts
23 objectives @ 5pts each	115 pts
5 unit tests @ 100 pts each	500 pts
Total:	900 pts

All course materials are on Blackboard

Class Activities (17 Activities at 10 points each)

Class activities reinforce the concepts learned in the modules by providing practice and connection to prior learning. Every module has activities associated with that module that are done in class either individually or in groups. Seventeen of these activities will be collected and graded at 10 points each. If you are absent you may download the activity from Blackboard and hand it in. Late activities will be discounted 1 pt for each class that it is late if you are not in class. No activities will be accepted after the test for that unit.

Quizzes: (23 Quizzes at 5 points each)

The quizzes for each module are located on Blackboard and are designed to aid the student in assessing their understanding of the material and to practice for the Unit Test. Two trials are allowed so that students can brush up on missed questions and retake a quiz. Students should complete a Quiz within one week from the date it is assigned. Quizzes will no longer be available to students at the start of the unit test.

Objectives: (23 Objectives at 5 points each)

Each module has a set of course objectives covered by that module. These are posted on Blackboard and will be handed out in class. The objectives for that unit will be collected on the test day for that unit. Late objectives will be accepted but discounted 10% for each class after the test.

Unit Tests: (5 Tests at 100 points each)

The Unit Test dates are indicated on the Course Schedule. The tests are designed to assess your understanding of the basic principles of biology.

The tests have 30 multiple choice questions worth 2 points each and a short answer section worth 40 points that may include fill-in-the-blank questions, sets of matching questions, sketching and labeling, and reading comprehension questions on a short science article. These are paper tests that you complete in class using a pen or pencil. Calculators will be provided if needed

There are no bathroom breaks, no cell phones and no papers on your desk during any test.

If you receive a 70% or less on a test, you may make corrections during the following week for up to 4 points of additional credit. Arrange with me to make these test corrections.

Makeup Unit Tests:

If you must be absent on test day, please contact me in advance to arrange to take the test in the Testing Center. Note that according to Biology Department policy, we can put tests into the Testing Center only on the campus on where the student is enrolled in that course. Only 1 makeup Unit Test will be given to any student during the semester. You will typically have 1 week to complete the make-up test.

Retests:

There are no retest exams. Once you take a test, you may not take it again to try for a better grade.

Note:

Due to ACC policies concerning the [Family Education Rights and Privacy Act](http://www.austincc.edu/business/documents/FERPA.pdf) (FERPA), I cannot post grades or call or e-mail you with information about your grades. You can find a copy of FERPA at <http://www.austincc.edu/business/documents/FERPA.pdf>

Rule of Three:

Students are charged a higher tuition rate for courses they repeat for the third or more time. This is generally referred to as the "Rule of Three". Information about this rule is located at: <http://www.austincc.edu/support/admissions/thirdattempt/index.php> and <http://www.austincc.edu/support/admissions/thirdattempt/faqs.pdf>

Six Drop Rule:

Texas Education Code Section 51.907 mandates that all students who enroll as first time freshmen at a Texas public institution of higher education in Fall 2007 or later may not drop more than six courses during their academic career. Information about this rule is located at: <http://www.austincc.edu/business/documents/SixWdraft.pdf> and <http://www.austincc.edu/handbook/acaguide2.php>

Withdrawal Policy:

"It is the responsibility of each student to ensure that his or her name is removed from the roll should he or she decides to withdraw from the class. The instructor does, however, reserve the right to drop a student should he or she feel it is necessary (excessive absences, etc).

*A student may be dropped from this course, if a student misses
1) 3 graded activities; 2) 3 quizzes; or 3) 1 Unit Test without verification.*

*Last day to withdraw without a W on your transcript:
Last day to withdraw with a W on your transcript:*

Students who enroll for the third or subsequent time in a course taken since fall 2002, may be charged a higher tuition rate, for that course. State law permits students to withdraw from no more than six courses during their entire undergraduate career at Texas public colleges or universities. With certain exceptions, all course withdrawals automatically count towards this limit. Details regarding this policy can be found in the ACC college catalog."

Students are responsible for understanding the impact withdrawing from a course may have on their financial aid, veterans' benefits, international student status, and academic

standing, etc. See the ACC website for information on add/drops procedures, deadlines, and tuition refunds.

You can withdraw by filling out the appropriate form and submitting it to the ACC Admissions and Records office on any campus before the stated deadline. You do **not** need my signature on this form.

Withdrawal courses appear on the student's record with a grade of W. *If you stop attending class and do not withdraw yourself from the course, you will end up with a grade of F for the semester.*

Reinstatement into a course after withdrawing is only possible if the student was withdrawn through college error.

Incomplete Grades:

An instructor may award a grade of "I" (Incomplete) if a student was unable to complete all of the objectives for the passing grade in a course and meets the criteria described below. An incomplete grade cannot be carried beyond the established date in the following semester. The completion date is determined by the instructor but may not be later than the final deadline for withdrawal in the subsequent semester.

Incomplete grades are rarely given in this class and will be given entirely at my discretion. A grade of incomplete (I) will be assigned only if:

- You have a valid reason and I agree to give you an incomplete grade.
- You request a grade of I in writing, with written documentation.
- You have completed at least 60% of the course work.
- You have at least a C (70%) average on completed work.
- The reason for your request has occurred after the official drop deadline for the course.

Be aware that incompletes that are not finished convert to F grades automatically, regardless of your grade average when you request the incomplete.

Scholastic Dishonesty:

"A student attending ACC assumes responsibility for conduct compatible with the mission of the college as an educational institution. Students have the responsibility to submit coursework that is the result of their own thought, research, or self-expression. Students must follow all instructions given by faculty or designated college representatives when taking examinations, placement assessments, tests, quizzes, and evaluations. Actions constituting scholastic dishonesty include, but are not limited to, plagiarism, cheating, fabrication, collusion, and falsifying documents. Penalties for scholastic dishonesty will depend upon the nature of the violation and may range from lowering a grade on one assignment to an "F" in the course and/or expulsion from the college. See the Student Standards of Conduct and Disciplinary Process and other policies at <http://www.austincc.edu/current/needtoknow> "

Any student caught cheating during a lecture exam may:

- 1) receive a grade of zero on the exam with no opportunity for makeup
- 2) have the incident reported by the instructor to the Biology Department Chairperson
- 3) take all subsequent exams in an assigned seat

Use of ACC email:

"All College e-mail communication to students will be sent solely to the student's ACCmail account, with the expectation that such communications will be read in a timely fashion. ACC will send important information and will notify you of any college related emergencies using this account. Students should only expect to receive email communication from their instructor using this account. Likewise, students should use their ACCmail account when communicating with instructors and staff. Instructions for activating an ACCmail account can be found at <http://www.austincc.edu/accmail/index.php>."

Cell Phones and Pagers:

Please turn off cell phones and pagers during class as a courtesy to me and other students. Cell phones are not allowed to be on your desk or hand during any testing or assessments. If you are expecting an important phone call, please let me know before class, set your phone to vibrate and quietly leave the class for your conversation.

Student and Instructional Services:

"ACC strives to provide exemplary support to its students and offers a broad variety of opportunities and services. Information on these services and support systems is available at: <http://www.austincc.edu/s4/>

Links to many student services and other information can be found at:
<http://www.austincc.edu/current/>

ACC Learning Labs provide free tutoring services to all ACC students currently enrolled in the course to be tutored. The tutor schedule for each Learning Lab may be found at: <http://www.austincc.edu/tutor/students/tutoring.php> For help setting up your ACCeID, ACC Gmail, or ACC Blackboard, see a Learning Lab Technician at any ACC Learning Lab."

Information about other services for students, such as financial aid, counseling and grade reports, can be found at:

- Student Services web site: http://www.austincc.edu/resources_students/services.php
- The ACC student handbook: <http://www.austincc.edu/handbook/useful.htm>

Specific Support Services for This Class "Open Lab":

The classroom is available for student use during certain hours of the week, including the weekend "Open Lab". There will be tutors present to answer your questions either in person or electronically. Open Lab hours will be posted in the classroom and on Blackboard as soon as they are available.

Biology tutors are available in the Learning Lab at this campus and others. For Learning Lab hours and more information about tutoring services, go to <http://www2.austincc.edu/tutor/index.php>. However, this BIL section is set up differently, so we have special tutors who have been through this course and can give you specialized advice. This includes Reece, who will be working with us during class.

Bad Weather:

If classes are cancelled because of bad weather, ACC notifies instructors and students on the ACC homepage (<http://www.austincc.edu>) and on local radio and television stations. I find it easiest and fastest to look at the ACC homepage.

Blackboard:

All grades, online modules, and other pertinent assignments and activities will be posted on Blackboard (<http://acconline.austincc.edu>). Please check this site on a daily basis for announcements and all needed materials.

Safety Statement:

"Austin Community College is committed to providing a safe and healthy environment for study and work. You are expected to learn and comply with ACC environmental, health and safety procedures and agree to follow ACC safety policies. Additional information on these can be found at <http://www.austincc.edu/ehs>. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the Emergency Procedures poster and Campus Safety Plan map in each classroom. Additional information about emergency procedures and how to sign up for ACC Emergency Alerts to be notified in the event of a serious emergency can be found at <http://www.austincc.edu/emergency/>.

Please note, you are expected to conduct yourself professionally with respect and courtesy to all. Anyone who thoughtlessly or intentionally jeopardizes the health or safety of another individual will be dismissed from the day's activity, may be withdrawn from the class, and/or barred from attending future activities."

Student Rights and Responsibilities:

"Students at the college have the rights accorded by the U.S. Constitution to freedom of speech, peaceful assembly, petition, and association. These rights carry with them the responsibility to accord the same rights to others in the college community and not to interfere with or disrupt the educational process. Opportunity for students to examine and question pertinent data and assumptions of a given discipline, guided by the evidence of scholarly research, is appropriate in a learning environment. This concept is accompanied by an equally demanding concept of responsibility on the part of the student. As willing partners in learning, students must comply with college rules and procedures."

Statement on Students with Disabilities

Each ACC campus offers support services for students with documented disabilities.

Students with disabilities who need classroom, academic or other accommodations must request them through the office Student Accessibility Services (SAS). Students are encouraged to request accommodations when they register for courses or at least three weeks before the start of the semester, otherwise the provision of accommodations may be delayed.

Students who have received approval for accommodations from SAS for this course must provide the instructor with the 'Notice of Approved Accommodations' from SAS before accommodations will be provided. Arrangements for academic accommodations can only be made after the instructor receives the 'Notice of Approved Accommodations' from the student.

Students with approved accommodations are encouraged to submit the 'Notice of Approved Accommodations' to the instructor at the beginning of the semester because a reasonable amount of time may be needed to prepare and arrange for the accommodations.

Additional information about Student Accessibility Services is available at <http://www.austincc.edu/sas>

Academic Freedom:

"Institutions of higher education are conducted for the common good. The common good depends upon a search for truth and upon free expression. In this course the professor and students shall strive to protect free inquiry and the open exchange of facts, ideas, and opinions. Students are free to take exception to views offered in this

Official Biology Department Policy Concerning Student Use of Organisms in the Classroom and Laboratory:

No organisms are used in BIOL 1308.

Student Discipline:

Classroom behavior should support and enhance learning. Behavior that disrupts the learning process will be dealt with appropriately, which may include having the student leave class for the rest of that day. In serious cases, disruptive behavior may lead to a student being withdrawn from the class. ACC's policy on student discipline can be found in the Student Handbook at <http://www.austincc.edu/handbook/> (pages 30-35).

Other Student Services:

Information about other services for students, such as financial aid, counseling and grade reports, can be found at:

- Student Services web site:
http://www.austincc.edu/resources_students/services.php
- The ACC student handbook can be found at: <http://www.austincc.edu/handbook/>