

Text in blue gives more information & suggests possible wording.

MASTER SYLLABUS BIOL 2420

BIOL 2420 Microbiology for Health Sciences

Semester:

SECTION INFORMATION

Section Number:

Synonym:

Campus:

Room (lecture):

Time (lecture):

Room (lab):

Time (lab):

INSTRUCTOR INFORMATION

Name:

Phone Number: 512-223- (ACC phone number or Voice Box should be given first. As a general rule, instructors should avoid providing personal phone numbers.)

Email: @austincc.edu (ACC email should be given first.)

Office Location:

Office Hours: (Information should be provided on how conferences outside of office hours can be arranged as well as how to access virtual office hours.)

Other office hours by appointment only

Other Methods of Instructor Contacts: (This line is optional. You can include your website or suggest contact through Blackboard if you wish. As a general rule, instructors should avoid interacting with students through social media.)

COURSE DESCRIPTION

Credit Hours: 4

Classroom Contact Hours per week: 3 (for a 16-week class)

Laboratory Contact Hours per week: 3 (for a 16-week class)

An introduction to the microbial world including the basic characteristics of fungi, algae, bacteria, and viruses. Special emphasis is placed on applications to humans. This course will not count as credit toward the Associate of Science degree in Biology.

COURSE RATIONALE

This course provides a survey of microorganisms, their environments, and their interactions with multicellular organisms, especially humans, and it concentrates on the microbes that are pathogenic to humans. The goal of Introduction to Microbiology is to adequately prepare students for the health science programs at ACC.

Course Prerequisite:

One of the following, with minimum grade of C (or equivalent with lab): BIOL 2404 (Intro to A&P), BIOL 2401 (A&P I), BIOL 2304/BIOL 2101 (Human Anatomy), or BIOL 1406 (Cellular and Molecular Biology).

Managing the Prerequisite Course Load:

Many ACC Health Sciences programs require BIOL 2401, BIOL 2402, and BIOL 2420 as prerequisites. Due to the rigorous nature of each of these courses, it is not recommended to take two of them in one semester. The Biology department recommends taking these courses in the following sequence in order to balance the course load:

Semester 1: BIOL 2401 – A&P I

Semester 2: BIOL 2402 – A&P II

Semester 3: BIOL 2420 – Microbiology for the Health Sciences

STUDENT LEARNING OUTCOMES & GENERAL EDUCATION COMPETENCIES

Course-Level:

- Explain microbiological processes in detail and on an appropriate level, including cell theory, metabolism, genetics, control, and interactions between humans and microbes, including the disease process and defense/immune responses
- Correctly perform microbiologic lab skills such as use of a Bunsen burner, use of the microscope, aseptic technique, streaking for isolation, establishing pure cultures, and isolation and determination of unknowns using differential stains and differential/selective media
- Display a habit of safe lab practices including aseptic technique and disposal of biohazard waste

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

- **Communication Skills** - develop, interpret, and express ideas and information through written, oral, and visual communication that is adapted to purpose, structure, audience, and medium.
- **Critical Thinking Skills** - gather, analyze, synthesize, evaluate, and apply information for the purposes of innovation, inquiry, and creative thinking.

- **Empirical and Quantitative Skills** - apply mathematical, logical, and scientific principles and methods through the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.
- **Teamwork** - consider different points of view to work collaboratively and effectively in pursuit of a shared purpose or goal.

Departmental Common Course Objectives:

The ACC Biology Department has specified the content for this course in the departmental common course objectives. The departmental objectives are located at [Common Course Objectives | ACC Biology Department](#).

(If you have developed additional student learning outcomes, you should list them here as well. You should also include information on how your learning objectives will be assessed.)

REQUIRED TEXTS/MATERIALS/SOFTWARE

(Any required textbooks, readings, laboratory manuals, or software should be listed here. You should include the title, author, edition & ISBN if available. Books must be chosen from the Approved Textbook List that can be found at the following web address [Approved Textbooks](#).

Specify if comparable Biology textbooks or older editions may be used. Also, list optional texts, such as study guides.)

INSTRUCTIONAL METHODOLOGY

Lecture

(This statement identifies the format in which the instruction occurs. Field activities, co-curricular, and service-learning activities may be mentioned here as well. You should include a statement on what students need to bring to class with them as well as what they need to do to prepare for each class. You should also include a statement on what kinds of assessments will be utilized in the course.)

Lab

(This statement describes the lab component of the course. You should include a statement on what students need to bring to lab with them as well as what they need to do to prepare for each lab. You should also include a statement on what kinds of assessments will be utilized in this part of the course.)

DISTANCE EDUCATION (for online or hybrid courses only)

(Advise students, many of whom may be new to online learning, about the differences between online and traditional face-to-face learning. In particular, advise students of the time management and study skills required to be a successful online student. Encourage students new to distance education to review the [ACC Distance Education General Information](#) available at [ACC Online Frequently Asked Questions | Academic And Career Programs | Austin Community College District](#).

Likewise, use of the college approved learning management system should be clearly stated for hybrid and online courses. Some suggested wording might be:

“Students will use the Blackboard learning management system for assignment instructions, submitting assignments, and collaboration.”)

STUDENT TECHNOLOGY SUPPORT

Austin Community College provides free, secure drive-up WiFi to students and employees in the parking lots of all campus locations. WiFi can be accessed seven days a week, 7 am to 11 pm. Additional details are available at [Student Technology Access](#).

Students who do not have the necessary technology to complete their ACC courses can request to borrow devices from Student Technology Services. Available devices include iPads, webcams, headsets, calculators, etc. Students must be registered for a credit course, Adult Education, or Continuing Education course to be eligible. For more information, including how to request a device, visit [Student Technology Access](#).

Student Technology Services offers phone, live-chat, and email-based technical support for students and can provide support on topics such as password resets, accessing or using Blackboard, access to technology, etc. To view hours of operation and ways to request support, visit [Student Technology Access](#).

GRADING SYSTEM

(Your grading criteria should be clearly explained in the syllabus. The criteria should specify

- Number of exams and other graded material (exercises, term papers, homework, assignments, projects, etc.).
- Weight assigned to each graded item.
- Due dates for exams should be provided though it is acceptable to direct students to the schedule.
- Format of exams (multiple choice, short answer, essay, matching, combination, etc.).

Guidelines for other graded materials, such as homework or projects, should also be included in the syllabus. Include how many points you take off for spelling, whether or not you allow exam retakes, or allow separate extra credit assignments. Links to grading and evaluation rubrics could also be included here.

You must include a final grading scale for the class, such as 90-100%=A.

Having explicit detail in this section helps to more easily resolve issues with student grades should they arise.)

COURSE POLICIES

Artificial Intelligence (AI)

Your policy regarding the use of artificial intelligence should be clearly explained in the syllabus. You should specify:

- your position on generative AI use
- why AI is permitted, prohibited or required
- what GAI means in the context of your course
- guidance for appropriate use
- clarification of expectations
- consequences of violations
- any conditional allowances

Having explicit detail in this section helps to more easily resolve issues with student grades should they arise.)

Attendance/Class Participation

Regular and punctual class and laboratory attendance is expected of all students. If attendance or compliance with other course policies is unsatisfactory, the instructor may withdraw students from the class.

Or for online courses:

Regular and timely class participation in discussions and completion of work is expected of all students. If attendance or compliance with other course policies is unsatisfactory, the instructor may withdraw students from the class.

And to cover situations where classes are cancelled because of weather, pandemic, or other emergencies:

The student is responsible for communicating with their professor during the closure and completing any assignments or other activities designated by their professor.

(Each instructor should clearly express their attendance and class participation policies. The instructor also needs to be explicit about whether the class is synchronous or asynchronous, and what activities, e.g., discussion boards, have mandatory participation.)

Withdrawal Policy

It is the responsibility of each student to ensure that his or her name is removed from the rolls should they decide to withdraw from the class. The instructor does, however, reserve the right to drop a student should he or she feel it is necessary. If a student decides to withdraw, he or she should also verify that the withdrawal is recorded before the Final Withdrawal Date. **The Final Withdrawal Date for this semester is (insert date here).** The student is also strongly encouraged to keep any paperwork in case a problem arises.

Students are responsible for understanding the impact that withdrawal from a course may have on their financial aid, veterans' benefits, and international student status. Per state law, students enrolling for the first time in Fall 2007 or later at any public Texas college or university may not withdraw (receive a "W") from more than six courses during their undergraduate college education. Some exemptions for good cause could allow a student to withdraw from a course without having it count toward this limit. Students are strongly encouraged to meet with an advisor when making decisions about course selection, course loads, and course withdrawals.

Students who exit the course before the Official Reporting Date are considered to have "dropped" the course. **The Official Reporting Date is (insert date here).** Dropped courses are not considered withdrawals and are not posted on the student transcript and thus not affected by the Texas Six Drop Rule. Students who exit the course after the Official Reporting Date and before or on the Final Withdrawal Date are considered to have "withdrawn" from the course thus receive a "W" on their transcript and are affected by the Texas Six Drop rule.

(The Final Withdrawal Date and Official Reporting Date can be found in the Registration Calendar.

Your withdrawal policy should make the following things clear: 1) do you drop students; and 2) if so, for what reasons (missing classes, missing exams, not completing safety training by a certain date, violating safety policy, not completing orientation for distance learning courses, not signing acknowledgement of receipt of syllabus, etc.).

Instructors may withdraw students from their courses through the Final Withdrawal Date. Students cannot withdraw after the Final Withdrawal Date, nor should instructors withdraw them after that date as a rule. In exceptional circumstances, such as student misbehavior (disruptive behavior, cheating, violating lab safety rules) or compelling compassionate reasons (such as natural disasters or serious illnesses), an instructor can withdraw a student after the Final Withdrawal Date--please contact your department chairperson for details.)

Reinstatement

(Instructors should include a policy that explains under what circumstances withdrawn students may be reinstated.)

Field Trip Policy

(If your course requires field trips, make sure you include this information in the syllabus. Make sure to include safety information regarding the safety information.)

Missed Exam and Late Work Policies

(Each instructor should clearly express their policies with regard to missed exams, late homework or laboratory exercises, etc. Be specific about your expectations. For example, how soon should a student contact you after missing an assignment or email,

what are the time limits for late work, etc.) Again, this helps immensely when dealing with student grade disputes.)

ACC Safety and Lab Safety Statements:

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.

You will receive safety training in your lab room prior to working with any hazards such as chemicals or microbes. If you miss in-class safety training and do not make it up as scheduled by your instructor you will be dropped from the class and not reinstated. If you show up on lab days without appropriate safety eyewear and shoes you will not be able to participate in lab or remain in the room during class.

Lab Policies:

(Be sure to also explain your lab policies. Include guidelines and procedures for lab exams. Include your policy regarding attendance if they miss any safety training at the beginning.)

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

Most ACC biology classes, particularly those with laboratory components, use actual organisms during instruction in addition to images and models. ACC students generally are preparing for real-world careers requiring workers with hands-on experience. These careers include health care, veterinary work, horticultural and agricultural work. Other students plan to transfer to four-year colleges and will be participating in biological research where hands-on experience is equally important.

Organisms used at ACC are fundamental in biology instruction and they are utilized to teach specific skills and knowledge. Their condition and usage varies from course to course. Students will be expected to actively participate in these activities. Students with particular concerns in this matter should consult with their instructor and/or departmental officials before enrolling in a course so that they can know what will be required of them.

Some organisms are observed alive while others are dead and preserved in various ways. Student manipulation of organisms ranges from culturing living organisms to dissecting preserved ones. Some examples include, but are not limited to: bacterial culturing for microbiology courses; cat, pig or rat dissection for anatomy courses; skeleton and pelt examination for field biology; and use of frogs in physiology experiments.

Incompletes

An incomplete (grade of "I") will only be given for extenuating circumstances. What constitutes "extenuating circumstances" is left to the instructor's discretion, while following any rules or guidelines set by the department. If a grade of I is given, the remaining course work must be completed by a date set by the student and professor and given on the "Report of Incomplete" form. This date is often about three weeks prior to the end of the following semester. A grade of I also requires completion and submission of the Incomplete Grade form, to be signed by the faculty member (and student if possible) and submitted to the department chair.

Students may request an Incomplete from their faculty member if they believe circumstances warrant. The faculty member will determine whether the Incomplete is appropriate to award or not. The following processes must be followed when awarding a student an I grade.

1. Prior to the end of the semester in which the "I" is to be awarded, the student must meet with the instructor to determine the assignments and exams that must be completed prior to the deadline date. This meeting can occur virtually or in person. The instructor should complete the Report of Incomplete Grade form.
2. The faculty member will complete the form, including all requirements to complete the course and the due date, sign (by typing in name) and then email it to the student. The student will then complete his/her section, sign (by typing in name), and return the completed form to the faculty member to complete the agreement. A copy of the fully completed form can then be emailed by the faculty member to the student and the department chair for each grade of Incomplete that the faculty member submits at the end of the semester.
3. The student must complete all remaining work by the date specified on the form above. This date is determined by the instructor in collaboration with the

student, but it may not be later than the final withdrawal deadline in the subsequent long semester.

4. Students will retain access to the course Blackboard page through the subsequent semester in order to submit work and complete the course. Students will be able to log on to Blackboard and have access to the course section materials, assignments, and grades from the course and semester in which the Incomplete was awarded.
5. When the student completes the required work by the Incomplete deadline, the instructor will submit an electronic Grade Change Form to change the student's performance grade from an "I" to the earned grade of A, B, C, D, or F.

If an Incomplete is not resolved by the deadline, the grade automatically converts to an "F." Approval to carry an Incomplete for longer than the following semester or session deadline is not frequently granted.

(The minimum requirements for assigning a grade of Incomplete (I) are that the student must have completed at least half (50%) of the course work (labs, exams, assignments, etc.) and have a minimum grade average of 70% on all completed work.)

Statement on Academic Integrity

Austin Community College values academic integrity in the educational process. Acts of academic dishonesty/misconduct undermine the learning process, present a disadvantage to students who earn credit honestly, and subvert the academic mission of the institution. The potential consequences of fraudulent credentials raise additional concerns for individuals and communities beyond campus who rely on institutions of higher learning to certify students' academic achievements and expect to benefit from the claimed knowledge and skills of their graduates. 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, falsifying documents, or the inappropriate use of the college's information technology resources. Further information is available at the [Academic Integrity website](#).

(Any course specific policies, expectations, or procedures with regards to academic integrity could be included here, such as penalties for scholastic dishonesty. A possible statement is included below.

"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.")

Statement on Student Discipline

(To ensure that students understand the consequences of misbehavior in the classroom, include a statement that outlines how you will respond to any disruptions. Here is an example:

“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 on the ACC website at [Student Standards of Conduct and Disciplinary Process.](#)”)

COURSE OUTLINE/CALENDAR

(The syllabus should contain a course outline for the lecture (and laboratory), outlining what students will be doing on what days, identifying test dates and other due dates. Include the statement below regarding variance in the schedule.)

Please note that schedule changes may occur during the semester. Any changes will be announced in class and posted as a Blackboard Announcement (or other resource faculty is using to communicate).

COLLEGE POLICIES & STUDENT SUPPORT SERVICES

College Policies & Student Support Services are now linked in all Blackboard courses. They can also be found at the following site: [College Policies and Student Support website](#).

(Below are some additional statements that can be included in the syllabus.)

Timely Return of Graded Materials

(Include a statement about when students can expect graded exams and papers to be returned.)

Student Injury Insurance

Students enrolled in lab and field courses are covered by student insurance if they are injured as a result of the lab or field activity. The instructor will provide the student with the necessary forms and complete an injury report for the office of Environment Health, Safety and Insurance. There is a small deductible.

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.

Blackboard

(Inform students what kinds of information you will be posting on Blackboard. An example statement is included below.

“All lecture and lab materials will be posted on Blackboard. Also, grades for all assignments, exams and labs will be posted on Blackboard. Check Blackboard daily for announcements, materials for the class and grades.”)

Cell Phones

(If you have a policy regarding cell phone usage in class, state this clearly in your syllabus. An example statement is included below.

“Please turn off the ringer on your cell phone during class as a courtesy to other students and me.”)

ACC Policy Concerning Copyrighted Materials

All class materials provided on the instructor's web page, Blackboard, CD, and/or in printed form (labs, objectives, assignments, etc.) are copyrighted and may not be reproduced without the written consent of the copyright holder. This may be the instructor, ACC, or a publisher. Reproduction consists of photocopying, scanning and copying files, or posting on a server or web site. Students currently registered for this section have permission to print one copy of course materials for their own personal use. No permission is given for posting any course materials on web sites.