

BIOL 1409 Biology: The Diversity of Life

(Spring, 2019)

Section 68823-009 RVS MW Lec: 12:00 pm – 1:20 pm RVS Rm 2242
Lab: 1:30 pm – 2:50 pm RVS Rm 2242

A General Biology Course designed for non-science majors who desire a conceptual approach to biological topics. An introduction to viruses, prokaryotes, protists, fungi, plants, and animals. Topics will include structures and functions, evolution, environmental and human interactions and origin of life -ACC College Catalog

Instructor: Dr. Stephen Ziser office: RVS: Bldg A, Rm 1141.3
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Website www.austincc.edu/sziser

Office Hours: Monday & Wednesday: RVS: (right after class at 2:50pm)
Tuesday & Thursday: RVS: 12:00pm – 2:50pm
Friday: by appointment

Textbook: None Required (course lecture notes on course website)

Lab Manual: **Van De Graaf A Photographic Atlas for the Biology Lab (required; any edition)**
Biol 1409 Lab Manual (required – download from course website)

Other: ACC Student Services offers various forms of support to help you succeed at ACC such as advising, academic, career and personal counseling, financial aid and accommodations for disabled students. See the ACC Catalogue, the ACC Student Handbook, or someone in Student Services for details.

Ground Rules

“Learning is active, not passive. If you want to reach your potential you must enjoy working hard. Nobody can just pour knowledge into your head...you’ve got to be hungry for it.” --Barack Obama

Attendance:

Your performance will depend heavily on your class and lab attendance. You will **definitely** do better on the exams if you attend regularly. If you miss a class it is your responsibility to get the lecture notes from someone.

All materials covered in lectures & labs, textbook & lab manual, handouts and assigned readings are “fair game” for lecture and lab exams.

The exact dates of exams and practicals can be changed to accommodate changes in the syllabus or wishes of the majority of students. Any changes will be announced ahead of time. **Keep your syllabus updated** as changes are made. There is no excuse for forgetting an important date.

Lecture attendance will not be regularly checked or graded but will be informally monitored. If your percent grade is within 1 point of the next higher letter grade, your final letter grade will be determined by your attendance and participation in lecture and lab.

Preparation and Study Time:

The course schedule indicates reading assignments for each lecture and lab period. You are expected to read the assigned material **before** coming to that day’s class.

If you want to get a good grade in this course, expect to spend about two hours studying and reading outside of class for every hour in class. Since you are in class 5 hours per week (lecture and lab) then you should expect to spend **at least** 10 to 15 hours per week studying and preparing for this class. ***The most common cause of poor grades is not being able, or willing, to schedule enough study time outside of class.*** Consider your priorities wisely.

Withdrawal:

The instructor has the right, but not the responsibility to drop you from the course for excessive absences. **Withdrawal is the responsibility of the student.** It is done by filling out the appropriate form and submitting it to the A&R office before the stated deadline.

Incomplete Grades:

An incomplete grade will **only** be given **in extreme emergencies** agreed upon by the instructor and student. Such a grade may require some kind of verification of the *unusual* circumstances and is given only if the student has completed **at least 75%** of the course work.

Cheating:

If you are caught cheating in the course or on homework assignments, at any time, you will receive an F for the semester regardless of your total points. You may also be expelled from the college. See the student manual if you are unclear as to what constitutes cheating

Receiving Final Grades:

If you would like to receive an unofficial report of your final grade before the official ACC mailout you can email me during the last week of the semester, before the end of the last class day and I will reply back with your point totals and final grade as soon as I get them.

Evaluation & Grading

Exams:

There will be **4 - 100 point lecture exams**. These exams may also include material studied in labs such as the results of various experiments or lab activities. The exams may include true and false, fill in the blanks, matching, definitions and short answer/essay questions. They will not include any multiple choice questions.

Lab Practicals:

There will be **3 - Lab Practical Exams worth 25 points each**. The Lab Practical will involve identifying specific structures on models or dissected organisms or identifying microscopic details of tissues and organs under the microscope.

There are ***no makeup exams or practicals!*** However, you will be allowed to drop your lowest exam and your lowest practical score. If you miss an exam or a practical **for any reason** this will count as the one you drop. ***You may only drop the last Exam or Practical if you receive at least a 60% on it,*** otherwise it will be averaged into your final grade and your *second lowest* scores will be dropped instead.

Lab Activities & Homework Assignments:

You will be asked to collect data and information during some of the lab periods, or do some lab/web/library research and submit the information that you collect on forms provided or as directed.

You will also be asked to go on one self guided field trip during the semester (suggestions are given on the course website). This material will count for a total of 100 points of your course grade. You will lose points for work turned in late. No points will be given for work more than two weeks late.

Scavenger Hunt:

You will be asked to find, collect, and identify some of a variety of organisms as we progress through our survey of the major kingdoms of life. There is a wide variety of items to choose from, they are described on the course website.

Extra Credit Opportunities:

You can earn up to a maximum of **25 extra points** by doing any of the activities listed below. Most will be worth a couple of points each, some of the more involved ones may be able to get you up to 5 extra points. Any extra points that you earn will be added to your final point total for the class. See course website for specific extra credit opportunities. Additional opportunities for extra will be announced throughout the semester, check the bulletin board regularly for details.

Grading

Your final course grade will be based on **500 total points**. Your total points divided by 500 will be converted to a percent value and your letter grade assigned as noted below:

Lecture Exams (best 3 of 4)	300
Lab Practicals (best 2 of 3)	50
Scavenger Hunt	50
Lab Assignments, Homework, field trip, etc	<u>100</u>
TOTAL:	500 points

<u>Final Grade</u>	<u>Percent</u>	<u>Points Needed</u>
A	100-90%	500-450
B	89-80%	449-400
C	79-70%	399-350
D	69-60%	349-300
F	59% and below	299 and below

The Fine Print

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 <http://www.austincc.edu/biology/ccobjectives>.

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.

Student Rights and Responsibilities:

Each student is strongly encouraged to participate in class. In any classroom situation that includes discussion and critical thinking, there are bound to be many differing viewpoints. These differences enhance the learning experience and create an atmosphere where students and instructors alike will be encouraged to think and learn. On sensitive and volatile topics, students may sometimes disagree not only with each other but also with the instructor. It is expected that faculty and students will respect the views of others when expressed in classroom discussions. 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. Students are expected to conduct themselves 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.

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 for 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 the Office for Students with Disabilities is available at <http://www.austincc.edu/support/osd/>

Statement on 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>

Statement on Student Discipline:

ACC's policy on student discipline can be found on the ACC website at <http://www.austincc.edu/current/needtoknow/>.

Withdrawals:

It is the responsibility of each student to ensure that his or her name is removed from the roll should he or she 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 submitted before the Final Withdrawal Date. The student is also strongly encouraged to retain their copy of the withdrawal form for their records. 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. No reinstatement for any reason.

Incompletes: 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. 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.

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/>.

Biology Department Policy on Use of Organisms in the Course:

Most ACC biology classes, particularly those with laboratory components, use actual organisms during instruction in addition to images and models. 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.

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/accmil/index.php>.

Testing Center Policy:

Under certain circumstances, an instructor may have students take an examination in a testing center. Students using the Academic Testing Center must govern themselves according to the *Student Guide for Use of ACC Testing Centers* and should read the entire guide before going to take the exam.

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:

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>

Setting up Student Accounts:

For help setting up your ACCeID, ACC Gmail, or ACC Blackboard, see a Learning Lab Technician at any ACC Learning Lab.

Testing Center Policies:

See Testing Center Website for information: www.austincc.edu/testctr

Student Handbook:

www.austincc.edu/handbook/

Student Support Services

Resources to support you are available at every campus. Food pantries are available at all campus Student Life offices (<https://sites.austincc.edu/sl/programs/foodpantry/>) Assistance paying for childcare or utility bills is available at any campus Support Center (<http://www.austincc.edu/students/support-center>). For sudden, unexpected expenses that may cause you to withdraw from one or more of your courses, go to <http://www.austincc.edu/SEF> to request emergency assistance through the Student Emergency Fund. Help with budgeting for college and family life is available through the Student Money Management Office (<https://sites.austincc.edu/money/>) Counselors are available at any campus if you experience a personal or mental health concern (<http://www.austincc.edu/students/counseling>). All services are free and confidential.

How to Get an "A" in This Course

Be Organized. You will be getting LOTS of handouts in this course. Get a binder or file folder and keep your lecture and lab notes and all handouts from lecture and lab, *in order*, along with your syllabus. Keep everything in one place. Organizing your course materials will help you to organize the information in your head as well.

Do The Time. This course is **very** demanding and requires a **serious** commitment of your time and energy. Be sure that you can plan a schedule that will allow a *minimum* of 10-15 hours of **quality time** each week to study. You may also wish to take advantage of the study labs and the tutoring labs in planning your study time.

Read and Read Again. One way to begin your study of the material is to read the the webnotes before and after the actual lecture. Only a rare individual can digest all the information covered in a lecture in one 'monster' study session. The more times you *actively* go over it the better you'll understand it and retain it. But actually *read* it thoughtfully, if your eyes are glazing over and your brain is wandering, you're not really reading it. Try again later.

Attend Every Lecture. The more times that you hear or read about a particular concept the more likely you are to remember it. Lecture attendance also gives you a good idea of which topics the instructor considers the most important or the most difficult. One survey of college students showed that the main factors that correlated with good grades were attendance at every class and sitting near the front of the room. Regularly skipping classes or arriving late tells the instructor *and yourself* that the class isn't really that important.

Really LISTEN in Class. A warm body in the classroom that's dozing or texting has *exactly* the same educational value as not attending at all. Take good class notes, *think* about what's being said, come up with questions to ask to make sure you understand it before the instructor moves on. Taking notes helps you to focus on the main points of the lecture. It will help you to know exactly which topics to focus on when studying. It also allows you to put things in your own words. If you don't feel like you're a good 'note taker' print out the 'lecture outline' and use it to help organize your notes as you take them in class. You might also want to record a few lectures and review them with your notes in front of you to make sure you're getting everything. Once you know you are taking complete notes, stop recording; you can study much more material in the same time as listening to a single lecture.

There Are NO 'Stupid' Questions. It IS stupid to not ask questions when you have them. You *paid* for an answer, so ask.

Don't Get Lost in the Details. Summarize the material into discrete topics, *learn* them. Start big, select 2 or 3 *major* points from each lecture, make each topic small enough that you can learn it *completely* in one study session. Take breaks between study sessions. Once you know the major topics, then start studying the *rest* of the material. This can be particularly effective if you do this after *each* lecture rather than saving it all until the weekend, or worse, the night before the exam. There is NO defensible reason to leave 'whole questions' on an exam completely blank.

Study For the Test Daily rather than pulling "all nighters" the days right before the test. It is almost impossible to absorb all that information on a test in one day, it's much more productive to take it in small manageable 'doses'. Try to study by topic or chapter to keep up, don't try to study *everything* every time you study.

Pay Particular Attention to Illustrations used in lectures and labs. Images can effectively summarize the major points of the lecture. A picture really is worth a thousand words. While studying try to recreate important diagrams and figures from memory. Practice explaining *out loud* exactly what each figure is telling you.

Eliminate Distractions. Effective *learning* requires *active concentration* on the material at hand. The time you spend studying should not be diluted by "multitasking" on myriad unrelated distractions. In truth, the brain cannot really "multitask"; anyone who says they multitask is just doing a lot of different things poorly instead of focusing on one thing and doing it well. There seems to be a very strong correlation with cell phone addiction and poor class performance. Since cell phones became a ubiquitous part of modern life, median test grades have gone down 20 - 30%.

Reorganize Your Notes into customized personal outlines of the material. Don't just recopy notes; invent new ways to organize or categorize the information. Personally customized learning tools are much more effectively than using *commercially prepared* study guides and outlines based on someone else's ideas of what is important. Be careful to avoid "busy work" such as recopying notes or highlighting the text if it's not really helping you to learn. It's more the *quality* of time you spend than the *quantity* of time that is important in helping you to really understand the material.

Demonstrate Proficiency. When you feel like you are starting to retain the information, stop and quiz yourself. Try to recreate important diagrams and figures from memory. Practice explaining, *out loud*, exactly what each figure is telling you. Form study groups and ask each other questions. Go to the study objectives *after* you think you know the material and see if you can *write out* a clear and concise answer to each question; verify your answers by showing it to other students or the instructor. Try to explain concepts to someone else, not necessarily even someone in the course, and make sure they can understand it; there is no better way to learn it than to teach it.

Come to the Lecture to Listen, Come to the Lab to Work. There is much more information in a lab period than you can really learn in the short time given. Structure your lab time wisely to make the best use of it. Don't waste time in lab with things you can do at home. Come to the lab prepared; that means knowing what activities you are doing that day, *marking* all the terms you need to learn on the illustrations in your textbook, knowing the procedures that will be followed, disposal instructions etc. *before* you begin the lab. The lab is time for "hands on" learning, if you spend half of it figuring out what's going on or doing things you could have prepared at home you are wasting precious time you could have spent actually learning something.

Make Sketches of Lab Materials. Use your *premarked* textbook illustrations to find structures on the models, slides or dissections. Use separate sheets of paper in lab to take notes and make quick sketches to remind you what you did or what you saw in lab. The idea isn't to render 'artistic truths' but to jog your memory as you study for the test.

Study What You've Got. Your instructor has distilled *all the most important information* that you will need to know for the exam and practical. He has summarized it, explained it, illustrated it and emphasized the most critical points. This is as good as it

gets. This is *exactly* “what you need to know for the test”. It’s all there right in front of you. **Study IT.** Stop looking for crutches to avoid the hard work of learning; skip other books and illustrations, stop surfing the web, skip the You-Tube videos, don’t buy coloring books or flash cards, get off the damn phone and study what you have. All that extra stuff you waste time on clutters your desk and your brain, sometimes to such an extent that you actually forget which things you’re really supposed to know.

Just Do It. Too much information? Confused? Can’t keep up? Don’t know where to start? Don’t wallow in your confusion. Start *anywhere*, even if it means closing your eyes and pointing randomly to your notes to choose. *After* you begin, things should start falling into place and becoming clearer.

Seek Additional Lab Time. Some things you can study at home. Others, like slides, models and dissections, you can learn well *only* in lab. Some campuses offer study labs in which you can dissect and review models and slides at times other than your lab time.

Ask for Help. ACC excels at offering ways to help students succeed in college. If you are having problems in the course, don't wait until the day before the test or the end of the semester to do something about it. See me during my office hours or by appointment to discuss the help you need. If you need even more help, the study lab and the tutoring labs at most campuses offer ‘one on one’ help or group study time for all ACC students throughout the semester.

Develop Your Own Personal Style. Some study best in quiet isolation, others learn best by studying in groups. Some outline lectures, others record and listen to lectures to firm up their notes. Different methods work better for different people, find out what’s best for *you*. However, if the study techniques you are comfortable with are not working, *stop using them*. Try something different even if it feels uncomfortable at first.

Never Give Up! Hundreds have succeeded in this course before you. If you’ve got the **maturity**, the **organizational skills**, the **determination** and the **flexibility** to try new study methods, you will succeed.

Reread These Suggestions at the beginning of each new set of test material.

How to Avoid Getting an “A” in This Course

1. Come to the class only because ‘it’s a required course’, *knowing* there’s nothing of much use or of much interest for you there.
2. Attend class when you feel like it or if there’s nothing else going on, you can get it all off the web notes if you need it.
3. Come to lecture and lab with no idea of what is going to be covered that day, they’re gonna tell you that stuff anyway.
4. Only write down what the instructor writes on the board, nothing else he says is important, it’s just padding.
5. When you go to lab, look at everything once, then you’re done, if you’re lucky you can get out of lab early to do some gaming or texting.
6. Spend lab time ‘catching up’ in other classes so you won’t have to do it when you get out of this class. You can catch up in this class later.
7. Only study when you feel like it. There’s more to life than bustin’ your butt on a college course.
8. Use *most* of your study time listening to your recordings of lectures, it’s easier than taking notes.
9. Devote *most* of your study time to highlighting and underlining stuff you may or may not get back to.
10. Recopy your notes exactly as you wrote them, if your penmanship improves it means you’re learning the material.
11. Spend *most* of your study time looking up answers to review questions or sample test questions. That’s all you *really* need to know.
12. Make 100’s of flash cards. If you have time after that, go through them once.
13. Develop elaborate mnemonics to try to remember a list of a few terms.
14. Buy a ‘coloring book’ for the course, be very careful not to go out of the lines.
15. Hunt for You-Tube videos for every major topic covered in lab and lecture and watch them each once.
16. Keep your cell phone with you and ‘on’ at all times, there might be an important call or text.
17. If you look at it and ‘think you know it’ then you’re good to go, don’t sweat the details.
18. Study “all night” before an exam. Drink lots of caffeine to stay awake.
19. Wait until the last exam before deciding its time to “get serious” in this class.
20. Don’t worry about grades, there’s always a curve, nobody can really learn all this stuff.
21. Always remember, your poor grades are your teacher’s fault.