

Master Course Syllabus

For additional course information, including prerequisites, corequisites, and course fees, please refer to the Catalog: <https://catalog.uvu.edu/>

Semester: Spring

Course Prefix: BIOL

Course Title: General Biology

Year: 2025

Course and Section #: 1010-011

Credits: 3

Course Description

Introduces major themes and concepts of biology including cell and molecular biology, genetics, diversity, evolution, and ecology. Provides students with necessary information and skills to critically evaluate what they hear, read, and see in the living world; communicate clearly; and apply methods to interpret data for making informed decisions concerning the role of biology in a world of which they are a part. May be delivered online.

Course Attributes

This course has the following attributes:

- General Education Requirements
- Global/Intercultural Graduation Requirements
- Writing Enriched Graduation Requirements
- Discipline Core Requirements in Program
- Elective Core Requirements in Program
- Open Elective

Other: *Click here to enter text.*

Instructor Information

Instructor Name: Staff

Student Learning Outcomes

1. Differentiate science as a way of knowing about the world and other forms of knowing.
 2. Be able to make decisions based on evidence. Evaluate evidence and solve problems by using scientific thinking skills.
 3. Apply your understanding of scientific literacy and citizenship to issues of today, such as evolution, human population growth, genomic medicine, climate change, GMOs, vaccination and disease, ecosystem health and conservation, among others.
 4. Demonstrate why evolution is the cornerstone of modern biology, uniting the main topics of cell, molecular biology, genetics, organismal biology, and ecology.
 5. Apply your knowledge of the interconnectedness of all life and the environment to your personal attitudes and actions concerning the health of this planet.
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Course Materials and Texts

Access to the Canvas site will be critical as quizzes, assignments, grades, discussion boards, and other announcements will be posted there.

Course Requirements

Course Assignments, Assessments, and Grading Policy

Quizzes: Weekly quizzes will be given pre- and post-lecture. (20% of grade)

Assignments: Assignments will be given throughout the semester. I will use a combination of Canvas assignments and online resources. (30% of grade)

Problem Sets: You will complete three online problem sets, spaced apart throughout the semester. You may work with a partner, but you must each complete the assignment in your own words. (30% of grade)

Final assessment: You will have an online final assessment due during finals week. This will be a guided assignment and should be done by yourself. (20% of grade)

Grading Scale:

A 100% - 94%; A- 93.9% - 90%; B+ 89.9% - 86%; B 85.9% - 83%; B- 82.9% - 80%; C+ 79.9% - 76%; C 75.9% - 73%; C- 72.9% - 70%; D+ 69.9% - 66%; D 65.9% - 63%; D- 62.9% - 60%; E 59.9% and below

Required or Recommended Reading Assignments

There is no required book for the course, there are online readings associated with topics to be provided in the Canvas course.

General Description of the Subject Matter of Each Lecture or Discussion

Nature of Science: What is science and where does scientific knowledge come from?

Introduction to Biology: What does it mean for something to be alive?

Chemistry of Life: Properties of water and other molecules that make up living things

Cells and Energy: How cells work and how they acquire and use energy via photosynthesis and cellular respiration

Mitosis and Meiosis: How cells divide and how genetic information is passed on to offspring in sexually reproducing species

DNA and Protein Synthesis: What is DNA and how does it allow cells to make proteins?

Genetics: How alleles are traced in a lineage and DNA technology

Evolution: History of study of evolution. Natural selection and other small scale evolutionary mechanisms. How new species are formed.

Phylogenetics: Understanding how living things are related and how new organisms evolve on a large scale

Tree of Life: Overview of the different types of living organisms and the history of when they appeared on Earth, including humans and our ancestors.

Anatomy and Physiology: Basic organization of the human body and how our organ systems work

Ecology: How living things interact at the community and global scales. The role of humans in local and global ecological cycles.

Required Course Syllabus Statements

Generative AI

AI is rapidly expanding as an important tool in a wide range of fields. However, it is crucial to learn how to use it correctly. AI is great to use as a starting point, but it should not be a replacement for your own

work. Often times, AI is not factually reliable and will not only make things up, but will lie about where it got its information. If you use AI to help you complete an assignment, you must fact check it, which often involves greater mastery of a subject than simply writing your own answer. You must also indicate that AI was used to complete that assignment, as documenting the use of AI for work is becoming a standard practice. For some assignments I will not allow the use of AI, and I will specify which those are. I reserve the right to deduct points if I have sufficient reason to believe that AI was used without any fact checking or alteration by the student.

Using Remote Testing Software

This course does not use remote testing software.

This course uses remote testing software. Remote test-takers may choose their remote testing locations. Please note, however, that the testing software used for this may conduct a brief scan of remote test-takers' immediate surroundings, may require use of a webcam while taking an exam, may require the microphone be on while taking an exam, or may require other practices to confirm academic honesty. Test-takers therefore shall have no expectation of privacy in their test-taking location during, or immediately preceding, remote testing. If a student strongly objects to using test-taking software, the student should contact the instructor at the beginning of the semester to determine whether alternative testing arrangements are feasible. Alternatives are not guaranteed.

Required University Syllabus Statements

Accommodations/Students with Disabilities

Students needing accommodations due to a permanent or temporary disability, pregnancy or pregnancy-related conditions may contact UVU [Accessibility Services](#) at accessibilityservices@uvu.edu or 801-863-8747.

Accessibility Services is located on the Orem Campus in BA 110.

Deaf/Hard of Hearing students requesting ASL interpreters or transcribers can contact Accessibility Services to set up accommodations. Deaf/Hard of Hearing services can be contacted at DHHservices@uvu.edu

DHH is located on the Orem Campus in BA 112.

Academic Integrity

At Utah Valley University, faculty and students operate in an atmosphere of mutual trust. Maintaining an atmosphere of academic integrity allows for free exchange of ideas and enables all members of the community to achieve their highest potential. Our goal is to foster an intellectual atmosphere that produces scholars of integrity and imaginative thought. In all academic work, the ideas and contributions of others must be appropriately acknowledged and UVU students are expected to produce their own original academic work.

Faculty and students share the responsibility of ensuring the honesty and fairness of the intellectual environment at UVU. Students have a responsibility to promote academic integrity at the university by not participating in or facilitating others' participation in any act of academic dishonesty. As members of the academic community, students must become familiar with their [rights and responsibilities](#). In each course, they are responsible for knowing the requirements and restrictions regarding research and

writing, assessments, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Likewise, instructors are responsible to clearly state expectations and model best practices.

Further information on what constitutes academic dishonesty is detailed in [UVU Policy 541: Student Code of Conduct](#).

Equity and Title IX

Utah Valley University does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age (40 and over), disability, veteran status, pregnancy, childbirth, or pregnancy-related conditions, citizenship, genetic information, or other basis protected by applicable law, including Title IX and 34 C.F.R. Part 106, in employment, treatment, admission, access to educational programs and activities, or other University benefits or services. Inquiries about nondiscrimination at UVU may be directed to the U.S. Department of Education's Office for Civil Rights or UVU's Title IX Coordinator at 801-863-7999 – TitleIX@uvu.edu – 800 W University Pkwy, Orem, 84058, Suite BA 203.

Religious Accommodation

UVU values and acknowledges the array of worldviews, faiths, and religions represented in our student body, and as such provides supportive accommodations for students. Religious belief or conscience broadly includes religious, non-religious, theistic, or non-theistic moral or ethical beliefs as well as participation in religious holidays, observances, or activities. Accommodations may include scheduling or due-date modifications or make-up assignments for missed class work.

To seek a religious accommodation, a student must provide written notice to the instructor and the Director of Accessibility Services at accessibilityservices@uvu.edu. If the accommodation relates to a scheduling conflict, the notice should include the date, time, and brief description of the difficulty posed by the conflict. Such requests should be made as soon as the student is aware of the prospective scheduling conflict.

While religious expression is welcome throughout campus, UVU also has a [specially dedicated space](#) for meditation, prayer, reflection, or other forms of religious expression.