

# **Master Course Syllabus**

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

Semester: Spring Course Prefix: BIOL Course Title: General Biology Year: 2025 Course and Section #: 1010-020 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: Dr. Ryan Wolt

# 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.

# **Course Materials and Texts**

**Recommended Text:** Campbell Essential Biology by Simon, Dickey, Hogan and Reece, Pearson Publishing, 6th edition. Additional extra credit text: Silent Spring by Rachel Carson. Computer capable of accessing Canvas.

# Course Requirements

#### **Grading Scale:**

The following grading standards will be used in this class:

Grade	Percent
Α	94-100
A-	90-93
B+	87-89
В	83-86
B-	80-82
C+	77-79
С	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
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### ALL TESTS & HOME WORK & EXTRA CREDIT WILL BE ON CANVAS TESTS:

There will be 5 exams throughout the semester. The exam format will be approximately 50 multiple-choice questions, 5-10 true/false, and 5-10 short answer. I wish to emphasize that studying at an even pace throughout the semester will be more beneficial to your success in this course than cramming. These are worth 46% of your grade, nothing is dropped. Grade calculation for this section: [(total points earned/ total points possible) X 100] X 0.46 **IFWORK**.

#### **HOMEWORK**:

There will be a homework assignment for each chapter throughout the semester. These are worth 46% of your grade, nothing is dropped. Grade calculation for this section: [(total points earned/ total points possible) X 100] X 0.46 <u>VIDEO SERIES</u> – Earth a New Wild:

There are 5 videos in this series, all are in Canvas, and each has a short quiz. These are worth **8%** of your grade.

Biology Today	Chap 1
Essential Chemistry for Biology	Chap 2
The Molecules of Life	Chap 3
A Tour of the Cell	Chap 4
The Working Cell	Chap 5
Cellular Respiration	Chap 6
Photosynthesis	Chap 7
Cellular Reproduction	Chap 8

#### **Required or Recommended Reading Assignments**

Patterns of Inheritance	Chap 9
The Structure and Function of DNA	Chap 10
DNA Technology	Chap 12
Plants & Fungi	Chap 16
Animas	Chap 17
An Introduction to Ecology and the Biosphere	Chap 18
Population Ecology	Chap 19
Communities and Ecosystems	Chap 20

# General Description of the Subject Matter of Each Lecture or Discussion

Biology Today
Essential Chemistry for Biology
The Molecules of Life
A Tour of the Cell
The Working Cell

Cellular Respiration
Photosynthesis
Cellular Reproduction
Patterns of Inheritance
The Structure and Function of DNA
DNA Technology
Plants & Fungi
Animas
An Introduction to Ecology and the Biosphere
Population Ecology
Communities and Ecosystems

# **Required Course Syllabus Statements**

*Welcome to BIOL 1010.* In this class we will explore how biology applies to YOU and will practice scientific thinking skills that will help you make more informed decisions related to your health, what you buy, and your role as a citizen of this planet. You will engage with and be supported by an online community that includes your peers and me (your instructor). I am confident that you can be successful in this course and will leave feeling empowered by your knowledge of biology.

**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.

This course fulfils the General Education requirement for Biology.

### Course Outcomes

Upon successful completion of this course, students will be able to:

- Distinguish the process of science from other ways of understanding the world.
- Evaluate evidence to solve problems using scientific thinking.
- Apply scientific literacy to issues of today, such as evolution, human population growth, genomic medicine, climate change, GMOs, vaccination and disease, ecosystem health and conservation, among others.
- Explain evolution as the cornerstone of modern biology, uniting the main topics of cell, molecular biology, genetics, organismal biology, and ecology.
- Apply knowledge of the interconnectedness of all life and the environment to personal attitudes and actions concerning the health of this planet.

For this **three (3) credit-hour** course students should expect to spend up to **9+ hours a week** completing course activities.

### Attendance

You are expected to regularly attend class. Absence from class makes it extremely difficult to be a successful student. **Class Culture:** 

"Come as you are. UVU has a place for you."--President Tuminez.

Your experience in this class is important to me and I want you to feel included, respected and that your voice is heard. As your instructor, it is my intent to create an inclusive and equitable learning atmosphere that is representative of a diversity of perspectives, and where all students are encouraged to share, express, and contribute in a safe environment. Please feel free to contact me if you would like to talk about any suggestions and/or concerns. If that feels uncomfortable to you, you can also contact the Inclusion and Diversity Committee (Links to an external site.) to ask for help and support. Student

### **Responsibilities:**

- Attend class regularly.
- Be accountable by setting aside regular time each week to complete course assignments on time as noted per the due dates.
- Learn how to use Canvas including communication tools (e.g. Canvas inbox, etc.). If you have technology-related problems, contact the <u>Service Desk (Links to an external site.)</u>.
- Abide by ethical standards. Your work must be your own.
- In all situations display respect, and patience when interacting with others.
- Be open to learning in many different ways and trying new learning and study strategies.
- Communicate with your instructor as early as possible if an emergency arises or you need help with the course. I am here to help you be successful!

### Instructor Responsibilities:

- Respond to emails within one business day. If multiple emails are received regarding the same question or concern, they may be responded to with an announcement to the entire class.
- Provide timely, meaningful and constructive feedback on assignments.
- Facilitate an effective learning experience and positive classroom culture.

- Refer students to appropriate services for issues that are non-course content specific. For instance, technical issue, writing labs, accessibility services, etc.
- *Mentor students through the course.*

Using Remote Testing Software

 $\Box$  This course does not use remote testing software.

 $\boxtimes$  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 pregnancyrelated conditions may contact UVU <u>Accessibility Services</u> at <u>accessibilityservices@uvu.edu</u> or 801-8638747.

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 <u>DHHservices@uvu.edu</u>

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 <u>rights and responsibilities</u>. 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 <u>UVU Policy 541: *Student*</u> <u>Code of Conduct</u>.

#### 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 – <u>TitleIX@uvu.edu</u> – 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 <u>accessibilityservices@uvu.edu</u>. 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 <u>specially dedicated space</u> for meditation, prayer, reflection, or other forms of religious expression.