

BIOL 1010: Biology and the Citizen

Utah State University Eastern

Fall 2018 - 3 credits

Meeting Times: MWF 1:30-2:45, Reeves 239

Instructor: Dr. Wayne Hatch,

Office Hours: T - 1-4pm; R - 10-12am

Contact: Reeves 264, wayne.hatch@usu.edu, 613-5393

Catalog Description:

Principles and methods of biology and how they impact the daily life and environment of the individual.

Learning Objectives:

Students completing this course will be able to:

- Explore the nature of science (How does science work?)
- Define life and explore the characteristics of life
- Describe the evolution of life
- Describe how organisms interact with one another and their environment
- Identify how humans impact life on earth
- Increase awareness of the need for sustainable living
- Participate in a sustainability project

Prerequisites:

Biology and the Citizen is a general education course for non-majors with no pre-requisites.

Textbook: Biology Now by Houtman, Scudellari, Malone, and Singh-Cundy published by W.W. Norton and Company Inc.

ISBN 978-0-393-93834-0

eBook and online resources: <http://digital.wwnorton.com/bionowcore>

Course Design

After every class meeting, one assignment will be due. Mondays and Wednesdays will be dedicated to helping students learn the course concepts. Except for exam days, students will complete a quiz in Canvas after class on Monday and Wednesday. After class on Fridays, students will post a response in Canvas to a discussion topic.

It is expected that students will read the text before attending class and work to complete the learning objectives for each chapter in the text. This will help the student be prepared to come to class ready to ask questions and discuss the ideas presented. If students have prepared for class ahead of time, they will be able to ask deeper questions and learn more about the subject than if they are not prepared. Class time will then consist of lectures, discussions, or group activities designed to help students reach the learning objectives. Another component of the course will be for students to participate in a sustainability project. Students will propose a plan to participate in a sustainability project. This can

consist of proposing a completely new plan to carry out on campus and then carrying it out or documenting your extensive participation in an existing project at your campus.

Chapter Learning Objectives

On the homepage in Canvas a link is available to download learning objectives for each chapter. It is highly recommended that the student view these and in their studies master these objectives. As a help, Dr. Hatch will provide time for each student to receive feedback on his/her understanding of each objective before each exam if desired.

Poll Everywhere

To help facilitate participation in class, the online polling service, Poll Everywhere, will be used. This will be free for students. Students will not be required to register but may do so if they would like to review questions from class. To register use the following url: www.polleverywhere.com/register?p=6ju59-wp5a&pg=lET6EZJ&u=GGC4qeZy

Dr. Hatch's presentation page is <https://pollev.com/waynehatch740>

Assessments:

Quizzes

Quizzes (5pts) will be taken in Canvas. These will assess student's knowledge of the material from class every Monday and Wednesday except for test days. These quizzes will help the student stay engaged with the material continuously during the semester and provide a quick assessment of understanding. After new concepts have been discussed in class, a quiz will be open that day in Canvas.

Exams

Exams will be administered through Canvas at the testing center. As listed on the syllabus, exams will open on Mondays and close on Tuesdays. Six exams will be given throughout the semester opening on the day scheduled on the syllabus. Each exam will count for 50 points. The lowest exam score will be dropped.

Discussions

Discussion prompts will be posted on Canvas, and students should respond quickly, but each discussion will be ongoing so that each student may participate anytime during the semester. These will be worth 5 points each. Discussions will open on Fridays on Canvas and will correspond to a topic presented in class.

Sustainability Project

The completion of the project will be worth 50 points.

The proposal will consist of your plan to participate in a sustainability project throughout the course. Class time will be reserved for you to discuss these with peers and the instructor.

They may include:

- Participating extensively in an existing sustainability project

- Preparing an extensive proposal for a new project
- Designing and carrying out a new project

For new proposals, \$1500 grants are awarded on a rolling basis by the student sustainability office, and ideas and applications can be found at www.usu.edu/bgg

Grading:

Final grades will be given according to the student's final percentage of all graded assignments and exams with the following breakdown.

A = 93-100% B+ = 87-89% C+ = 77-79% D+ = 67-69%
 A- = 90-92% B = 83-86% C = 73-76% D = 60-66%
 B- = 80-82% C- = 72-70% F = below 60%

• 6 exams - 50 points each (lowest score dropped)	250pts
• Quizzes - 5 points each	100pts
• Weekly discussion responses - 5pts each	60pts
• Sustainability project	60pts
Total points	470pts

Extra Credit:

Few opportunities will provide extra credit opportunities for students, which includes completing the course evaluation at the end of the semester for 5 points and others to be announced.

Successfully navigating this course

Successful students will show mastery of biological concepts through quizzes and exams and participate in a sustainability related activity and discussions.

To do so, a student must:

- 1st- know what the learning objectives are by accessing them on Canvas.
- 2nd- do whatever it takes to learn the concepts. This may include reading the text, taking notes in class, completing practice questions, using any free content online, discussing the material with peers or Dr. Hatch (by the way, he loves discussing the material; and no, he didn't always know it; and no, he doesn't know everything about it; he especially enjoys listening to students discuss it).
- 3rd- demonstrate mastery by completing quizzes and exams.
- 4th - post a comment for each discussion
- 5th - choose and participate in a sustainability relate activity all semester

Canvas:

Canvas is where course content, grades, and communication will reside

<http://canvas.usu.edu>

Your username is your A# and your password is your global password. For Canvas, passwords, or any other computer-related technical support contact the IT Service desk. (435)797-4357. <http://it.usu.edu>

Classroom Accommodation For Students With Disabilities

If a student has a disability that qualifies under the Americans with Disabilities Act (ADA) and requires reasonable accommodation, he/she should contact the Academic Access Center (AAC) for information on appropriate policies and procedures. Disabilities covered by ADA may include learning, sensory, emotional, physical, or medical impairments. Students may contact the AAC if they are not certain whether a condition qualifies. Regional campus students may contact the DRC located in Room 1010 of the University Inn, 435-797-2444 (voice), 435-797-0740 (TTY) or toll free at 800-259-2966. USU Eastern students may contact the AAC located in room 223 of the JLSC, 435-613-5337. Please contact the AAC as early in the semester as possible.

Policies on attendance and make-up work:

Generally, students who attend class regularly and are attentive perform better in the class. Specifics about assignments, changes in the schedule/assignments/exams will typically only be announced in class. Quizzes cannot be made up. Discussions and tests can be completed anytime during the semester for full points.

Academic Dishonesty:

Cheating and/or plagiarism are illegal and will not be tolerated. If a student is found guilty, the student may immediately fail the course and possible expulsion from the college. Any suspicion of an academic integrity violation (AIV) may be reported by the instructor to the university. As stated in student code Section VI-1 “Whenever an instructor reasonably suspects that a student has committed an academic integrity violation, the accused student shall be notified by the instructor of the violation and its consequences through use of the academic integrity violation form (AIVF) within seven days that a violation has occurred and that a sanction is appropriate.”

Course Schedule

Week	Monday	Wednesday	Friday
<i>Aug 27-Aug 31</i>	Introduction	Ch. 1 Nature of Science	<i>Sustainability Introduction</i>
<i>Sep 3-7</i>	<i>Labor Day - No class</i>	Ch. 19 A Critical Choice	
<i>Sep 10-14</i>	Ch. 2 Chemistry of Life	Ch. 2 cont.	
<i>Sep 17-21</i>	Exam 1	Ch. 3 Life is Cellular	
<i>Sep 24-28</i>	Ch. 3 cont.	Ch. 4 How Cells Work	
<i>Oct 1-5</i>	Ch. 4 cont.	Ch. 5 Cell Division	
<i>Oct 8-12</i>	Exam 2	Ch. 6 Patterns of Inheritance	Ch. 7 Chromosomes and Human Genetics
<i>Oct 15-19</i>	Ch. 8 What Genes Are	Ch. 9 How Genes Work	
<i>Oct 22-26</i>	Exam 3	Ch. 10 Evidence for Evolution	
<i>Oct 29-Nov 2</i>	Ch. 11 Mechanisms of Evolution	Ch. 12 Adaptation and Species	
<i>Nov 5-9</i>	Exam 4	Ch. 13 History of Life	
<i>Nov 12-16</i>	Diversity of Life	Ch. 14 Human Evolution	
<i>Nov 19-23</i>	Exam 5	<i>Thanksgiving Break - No Class</i>	

<i>Nov 26-30</i>	Ch. 15 General Principles of Ecology	Ch. 16 Growth of Populations	
<i>Dec 3-7</i>	Ch. 17 Of Wolves and Trees	Ch. 18 Here and Gone	
<i>Dec 10-14</i>	Exam 6		

Disclaimer: The schedule and assignments as part of this syllabus are tentative and subject to change