

BIOL 1010: Biology and the Citizen

Utah State University Eastern

Spring 2018 - 3 credits

Meeting Times: MWF, 10:30-11:20, Reeves 187 and Broadcast sites

Instructor: Dr. Wayne Hatch,

Office Hours: R 10-12pm; F 1-4pm and by appointment

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

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.

Each week, one class period will be dedicated to topics of sustainability and class time will be used to introduce the topic and to provide small group discussions. Your response to the sustainability topic will be posted in a discussion board on Canvas.

A major 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.

Poll Everywhere:

To help facilitate participation in class, the online polling service, Poll Everywhere, will be used. This will be free for students, but will require students to register at the Poll Everywhere website because it will be used for in class quizzes. When this service will be used for purposes other than graded quizzes, students will not be required to log in at polleverywhere.com. To register use the following url:

www.polleverywhere.com/register?p=6ju59-1nrr&pg=pCaZiZA&u=GGC4qeZy

Assessments:

Quizzes

A quiz will be given in class each Friday in class. These will be worth 5 points each. Students may only be excused from taking a quiz for authorized university activities. Missed quizzes for other reasons will be counted for zero points. However, only the top 10 quiz scores will be counted towards the final grade. This should allow for students to miss a few quizzes without penalty. Each quiz will be given and graded using Poll Everywhere.

Exams

Exams once open will stay open for one week. After each test is open you may take it any time. 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.

Chapter Learning Objectives

Each chapter's objectives will be assigned for completion. These will be submitted to Dr. Hatch for review. These will be worth 2 points, and will provide an opportunity for each student to receive feedback on his/her understanding of each objective before each exam. Each objective sheet will be due the day the exam covering those objectives opens. For example, Exam 1 assesses knowledge of Ch. 1-3 objectives and Ch. 1-3 objectives will be due when Exam 1 opens.

Sustainability Project

Sustainability proposals will be due by **January 19** and final reports of the project due during finals week. The proposal will be worth 10 points, and the completion of the project will be worth 100 points.

The proposal will consist of your plan to participate in a sustainability project throughout the semester. 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
• In-class quizzes - 5 points each (best 10 scores)	50pts
• Weekly discussion responses - 5pts each	65pts
• 19 Chapter Learning Objectives - 2pts each (optional)	38pts
• Sustainability project proposal	10pts
• Sustainability project	100pts
Total points	513pts

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 assignments.

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>

ADA Services:

USU welcomes students with disabilities. If you have, or suspect you may have, a physical, mental health, or learning disability that may require accommodations in this course, please contact the Academic Access Center (AAC) as early in the semester as possible. Regional campus and Logan students may contact the Disability Resource Center (DRC) located in Room 101 of the University Inn, 435-797-2444, drc@usu.edu. USU Eastern students may contact the AAC located in room 223 of the JLSC, 435-613-5337. All disability related accommodations must be approved by the AAC. Once approved, the AAC will coordinate with faculty to provide accommodations.

USU Eastern Students may also schedule a therapy appointment with an on campus therapist by contacting the AAC at 435-613-5337.

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: Open days will be TBA or a continuation of the previous day’s material, but a sustainability topic will be discussed each Friday.

Week	Monday	Wednesday	Friday
<i>Jan 8-12</i>	Introduction	Ch. 1 Nature of Science	<i>Sustainability Introduction</i>
<i>Jan 15-19</i>	<i>Martin Luther King Jr. Day - No class</i>	Ch. 2 Chemistry of Life	
<i>Jan 22-26</i>	Ch. 3 Life is Cellular		Exam 1 open
<i>Jan 29-Feb 2</i>	Ch. 4 How Cells Work		Exam 1 due
<i>Feb 5-9</i>	Ch. 5 Cell Division		Exam 2 open
<i>Feb 12-16</i>	Ch. 6 Patterns of Inheritance		Exam 2 due
<i>Feb 19-23</i>	<i>President’s Day - Attend on Tuesday</i> Ch. 7 Chromosomes and Human Genetics	Ch. 8 What Genes Are	
<i>Feb 26-Mar 2</i>	Ch. 9 How Genes Work		Exam 3 open
<i>Mar 5-9</i>	<i>Spring Break - No class all week</i>		
<i>Mar 12-16</i>	Ch. 10 Evidence for Evolution Exam 3 due	Ch. 11 Mechanisms of Evolution	
<i>Mar 19-23</i>	Ch. 12 Adaptation and Species		Exam 4 open
<i>Mar 26-30</i>	Ch. 13 History of Life	Ch. 14 Human Evolution	Exam 4 due
<i>Apr 2-6</i>	Ch. 15 General Principles of Ecology		Exam 5 open
<i>Apr 9-13</i>	Ch. 16 Growth of Populations		Exam 5 due
<i>Apr 16-20</i>	Ch. 17 Of Wolves and Trees	Ch. 18 Here and Gone	
<i>Apr 23-27</i>	Ch. 19 A Critical Choice	Discuss Sustainability Projects	Q&A
<i>Apr 30-May 4</i>	Final Exam 6 in testing center due by the end of the week		

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