BIOl 1610: Biology I

Utah State University Eastern

Fall 2017, 3 credits

Meeting Time: MWR 8:30-9:20, CIB 101
Instructor: Dr. Wayne Hatch, Reeves 264
Office Hours: T 1-4pm; R 10-12pm; and by appointment
Contact: wayne.hatch@usu.edu, 613-5393

Catalog description:
Principles of cell biology, energetics, and genetics; plant structure, function, and development. Three lectures and one lab. To receive University Studies Breadth Life Sciences (BLS) credit, students must complete both BIOL 1610 and either BIOL 1620 or BIOL 3300. The BIOL 1610 and BIOL 3300 option for BLS credit is available only to students majoring in Biological Engineering or Environmental Engineering. The BIOL 1610 and BIOL 3060 option for BLS credit is available only to students in the Bioinformatics Emphasis of the Computer Science Major.

General Course Objectives

- Become competent in the nature of science
- Explore the chemical basis of life
- Understand the working cell model
- Explore how life obtains and utilizes energy
- Gain knowledge of the function of genes and their inheritance
- Explain principles of evolution
- Identify evolutionary relationships among species

Recommended Pre-requisites:
Prior or concurrent enrollment in CHEM 1110 or CHEM 1210, prior biology courses.

Textbook:
Biology: How Life Works; Morris, J. 2013. ISBN-13: 978-1429218702

Course design:
As described in the course catalog this course consists of three lecture periods each week. The lecture periods will consist of lectures, discussions and other activities designed to encourage student learning of the objectives listed above.

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-wp5a&pg=lET6EZJ&u=GGC4qeZy

Assessments:

Exams

Six written tests worth 100 points each will be given throughout the semester. Each test will cover one section of material from the text. Questions for the exams will be based off of the learning objectives for each chapter that will be provided on Canvas. These exams will be given in the testing center and will open on the scheduled Thursday and close on Friday of the week listed on the schedule. There will not be a final comprehensive exam, but the final section exam will be given during finals week.

Quizzes

A short quiz (5-10pts) will be given each Thursday in class. These will assess student's knowledge of the material discussed during week. Each quiz will be given and graded using Poll Everywhere.

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. 1-4 objectives and Ch. 1-4 objectives will be due when Exam 1 opens.

Grading:

6 exams	600pts
14 quizzes	~100pts
Learning Objectives	48pts
Total	~748pts

Percentage Grading Scale:

100-93 =A	89-87=B+	79-77=C+	69-67=D+	below 60=F
92-90 =A-	86-83=B	76-73=C	66-63=D	
	82-80=B-	72-70=C-	62-60=D-	

Expectations of Students:

I expect that as a student you will come to class ready to participate in each discussion or lecture as appropriate. This means reading the chapter before class and writing down questions to ask during class. Students should access the chapter outlines and use them as a guide in reading the chapter and taking notes during class. I also expect that you will avoid disrupting the class in general as well those immediately surrounding you. Many actions such as texting may seem to only affect yourself but generally also annoy and discourage the learning of the students around you.

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. If you will be gone for a test, let Dr. Hatch know a day ahead of time so that accommodations can be made.

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

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.”

USU Eastern Counseling Services
"USU Eastern is committed to providing resources for students to engage as their best selves while on campus. In this vein, students should be aware of counseling and mental health services if the need arises for therapy or counseling. Our counselors can be contacted at 435-613-5337 or students can email”

Classroom Accommodation for Students with Disabilities:
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 Disability Resource Center (DRC) as early in the semester as possible. Students may contact the DRC located in room 223 of the JLSC, 435-613-5337. All disability related accommodations must be approved by the DRC. Once approved, the DRC will coordinate with faculty to provide accommodations.

Course Schedule: Open Days will be TBA

Week	Monday	Wednesday	Thursday
Aug 28-Sep 1	Introductions	**Ch. 1**: Life	
Sep 4-8	*Labor Day (No Class)*	**Ch. 2:** Molecules of Life	
Sep 11-15	**Ch. 3:** Nucleic Acid and the Encoding of Biological Information	**Ch. 4**: Translation and Protein Structure	**Test 1**
Sep 18-22	**Ch. 5:** Organizing Principles	**Ch. 6** Making Life Work	
Sep 25-29	**Ch. 7:** Cellular Respiration	**Ch. 8:** Photosynthesis	**Test 2**
Oct 2-6	**Ch. 9:** Cell Communication	**Ch. 10**: Cell Form and Function	
Oct 9-13		**Ch. 11:** Cell Division	
Oct 16-20	**Ch. 12:** DNA Replication and Manipulation		*Fall Break – Attend Friday schedule* **Test 3**
Oct 23-27	**Ch. 13:** Genomes	**Ch. 14:** Mutation and DNA Repair	
Oct 30-Nov 3	**Ch. 15:** Genetic Variation	**Ch. 16:** Mendelian Inheritance	**Test 4**
Nov 6-10	**Ch. 17:** Beyond Mendel	**Ch. 18:** Genetic and Environmental Basis of Complex Traits	
Nov 13-17	**Ch. 19:** Genetic and Epigenetic Regulation	**Ch. 20:** Genes and Development	**Test 5**
Nov 20-24	**Ch. 21:** Evolution	*Thanksgiving Holiday*	*Thanksgiving Holiday*
Nov 27-Dec 1	**Ch. 22:** Species and Speciation	**Ch. 23:** Evolutionary Patterns	
Dec 4-8	**Ch. 24:** Human Origins and Evolution		
Dec 11-15	**Test 6 (Final)***		

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

*Final Exam: The final exam is scheduled for Monday, Dec. 12 at 7:30-9:20am; however, the final exam will also be administered in the testing center throughout final's week. The final will assess knowledge of Ch. 21-24.

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