BIOL 5210

Course Description
Examines the mechanisms of cell structure and function at the molecular level.

Prerequisite/Restriction: BIOL 1620, BIOL 3060; CHEM 2300 or CHEM 2320; CHEM 3700 or CHEM 5700 highly recommended.

Course Objectives
By the end of this course, you will be able to:

1. Understanding of how life works and cells function within the framework of core biological processes and concepts.
2. Apply information learned in the course to understand how biologists construct new knowledge using evidence gained through the scientific method of observation, experimentation and hypothesis testing.

Instructor
Shana Geffeney, PhD
Office: BEERC 221L
Email: shana.geffeney@usu.edu
Office phone: 435-722-1784
Office Hours: Friday 1-3 PM, I am in my office and by phone at this time, please contact me by email to make an appointment for another time.

Course Resources

Course Requirements
Each student will:

1. Take the weekly reading quizzes.
2. Participate in in-class discussions and answer in-class questions.
3. Complete weekly problem set questions.
4. Take all four (4) exams.
Evaluation Methods and Criteria

**Reading Quizzes:** Reading quizzes will include multiple-choice and fill-in-the-blank questions from the assigned reading. The assigned reading can be found with each lecture description in the syllabus on CANVAS and also in the printed syllabus. The quizzes are to be taken on CANVAS and you will have 30 minutes to answer the five (5) questions. Each quiz will be worth 5 points. **Reading quizzes are due at noon Thursdays on CANVAS.** I will post an answer key for each reading quiz on Friday at 5 PM. Problem-set answers will not be accepted after the problem-set-answer keys have been posted.

**In-class answers:** Learning to communicate scientific information is an important part of your education. You will have multiple opportunities to teach your fellow students and help them understand the material. You will receive 10 possible points each for three (3) in-class answers that you will present to the class. The class will be organized into discussion groups. You will be expected to work with other members of your group to answer the assigned question and then one person will be randomly chosen to present the answer to the entire class.

**Problem sets:** Short problem sets (2-3 questions) will be posted on Canvas one week before each lecture. Please read and try to answer the questions in the problem sets before each lecture. These problems will test your knowledge of the material covered in the lecture. We will work on aspects of each problem set as in-class exercises. You will be asked to work in your discussion group to answer questions and then one person will be chosen to answer the question in order to earn in-class answer points. The problem set questions can be answered by a short descriptive paragraph or a calculation. The written answers are worth a possible 10 points. You will enter your answers in a quiz on CANVAS. **The answers to the problem sets are due at noon Tuesdays on CANVAS.** I will post an answer key for each problem set on Wednesdays at 5 PM. Problem-set answers will not be accepted after the problem-set-answer keys have been posted.

**Discussion Questions:** There will be 20 extra credit points assigned for participation in online CANVAS discussions. You will receive 1 point for each of 20 posting on CANVAS in the discussion thread if you both 1) post a question and 2) explain how you have tried to answer the question. Your answer needs to acknowledge the source for the information, for example a slide from lecture, a page from the textbook or additional information that you found in a scientific article or website. Additionally, you can earn a point by answering a question posted by someone else. Again your answer should explain the source you used to answer the question. Because this class meets once a week, you can both earn points and have your questions answered quickly using the discussion board. I will check the discussion board daily at 10 AM and your fellow students may answer your questions there as well. Remember, the best way to learn a topic is to explain it to someone else. Please consider this resource for getting your questions answered.

**Exams:** There will be four (4) exams, each worth 100 points (400 points total). Exams will have questions including multiple-choice, short answer, and calculations in the same format as the reading quizzes and problem sets. **There will be no makeup exams. If you cannot take an exam during the scheduled period, you must make arrangements with me at least 48 hours before the exam is given to take the exam early. Remember that if you are traveling in Utah, exams can be taken at USU testing centers throughout the state.**

**Grade Scheme**

The following grading standards will be used in this class:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>100% to 93.0%</td>
</tr>
<tr>
<td>Grade</td>
<td>Range</td>
</tr>
<tr>
<td>-------</td>
<td>---------------</td>
</tr>
<tr>
<td>A-</td>
<td>&lt; 93.0 % to 90.0%</td>
</tr>
<tr>
<td>B+</td>
<td>&lt; 90.0 % to 87.0%</td>
</tr>
<tr>
<td>B</td>
<td>&lt; 87.0 % to 83.0%</td>
</tr>
<tr>
<td>B-</td>
<td>&lt; 83.0 % to 80.0%</td>
</tr>
<tr>
<td>C+</td>
<td>&lt; 80.0 % to 77.0%</td>
</tr>
<tr>
<td>C</td>
<td>&lt; 77.0 % to 73.0%</td>
</tr>
<tr>
<td>C-</td>
<td>&lt; 73.0 % to 70.0%</td>
</tr>
<tr>
<td>D+</td>
<td>&lt; 70.0 % to 67.0%</td>
</tr>
<tr>
<td>D</td>
<td>&lt; 67.0 % to 60.0%</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 59.0 % to 0.0%</td>
</tr>
</tbody>
</table>

**Course Schedule/Outline**

The course schedule can be seen below. Here is a link to a pdf copy of the course syllabus.


**Attendance and Excused Absences Policy**

Attendance is very important to be successful in this course. I will not take attendance for the class but be aware that you are fully responsible for all announcements made and material covered in class. Additionally, you will not be able to earn in-class answer point except by attending the weekly lectures.

**Library Services**

All USU students attending classes in Logan, at our Regional Campuses, or online can access all databases, e-journals, and e-books regardless of location. Additionally, the library will mail printed books to students, at no charge to them. Students can also borrow books from any Utah academic library. Take advantage of all library services and learn more at libguides.usu.edu/rc. (http://libguides.usu.edu/rc)

**Classroom Civility.**
Utah State University supports the principle of freedom of expression for both faculty and students. The University respects the rights of faculty to teach and students to learn. Maintenance of these rights requires classroom conditions that do not impede the learning process. Disruptive classroom behavior will not be tolerated. An individual engaging in such behavior may be subject to disciplinary action. Read Student Code Article V Section V-3 (https://studentconduct.usu.edu/studentcode/article5) for more information.

University Policies & Procedures

Academic Freedom and Professional Responsibilities

Academic freedom is the right to teach, study, discuss, investigate, discover, create, and publish freely. Academic freedom protects the rights of faculty members in teaching and of students in learning. Freedom in research is fundamental to the advancement of truth. Faculty members are entitled to full freedom in teaching, research, and creative activities, subject to the limitations imposed by professional responsibility. Faculty Code Policy #403 (http://www.usu.edu/hr/files/uploads/Policies/403.pdf) further defines academic freedom and professional responsibilities.

Academic Integrity – "The Honor System"

Each student has the right and duty to pursue his or her academic experience free of dishonesty. To enhance the learning environment at Utah State University and to develop student academic integrity, each student agrees to the following Honor Pledge:

"I pledge, on my honor, to conduct myself with the foremost level of academic integrity."

A student who lives by the Honor Pledge is a student who does more than not cheat, falsify, or plagiarize. A student who lives by the Honor Pledge:

- Espouses academic integrity as an underlying and essential principle of the Utah State University community;
- Understands that each act of academic dishonesty devalues every degree that is awarded by this institution; and
- Is a welcomed and valued member of Utah State University.

Academic Dishonesty

The instructor of this course will take appropriate actions in response to Academic Dishonesty, as defined the University's Student Code. Acts of academic dishonesty include but are not limited to:

- **Cheating**: using, attempting to use, or providing others with any unauthorized assistance in taking quizzes, tests, examinations, or in any other academic exercise or activity. Unauthorized assistance includes:
  - Working in a group when the instructor has designated that the quiz, test, examination, or any other academic exercise or activity be done “individually;”
  - Depending on the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments;
  - Substituting for another student, or permitting another student to substitute for oneself, in taking an examination or preparing academic work;
  - Acquiring tests or other academic material belonging to a faculty member, staff member, or another student without express permission;
  - Continuing to write after time has been called on a quiz, test, examination, or any other academic exercise or activity;
  - Submitting substantially the same work for credit in more than one class, except with prior approval of the instructor; or engaging in any form of research fraud.

- **Falsification**: altering or fabricating any information or citation in an academic exercise or activity.
• **Plagiarism:** representing, by paraphrase or direct quotation, the published or unpublished work of another person as one’s own in any academic exercise or activity without full and clear acknowledgment. It also includes using materials prepared by another person or by an agency engaged in the sale of term papers or other academic materials.

For additional information go to: ARTICLE VI. University Regulations Regarding Academic Integrity (https://studentconduct.usu.edu/studentcode/article6)

**Sexual Harassment/Title IX**

Utah State University is committed to creating and maintaining an environment free from acts of sexual misconduct and discrimination and to fostering respect and dignity for all members of the USU community. Title IX and USU Policy 339 (http://www.usu.edu/policies/339) address sexual harassment in the workplace and academic setting.

The university responds promptly upon learning of any form of possible discrimination or sexual misconduct. Any individual may contact USU’s Affirmative Action/Equal Opportunity (AA/EO) Office (http://aaeo.usu.edu) for available options and resources or clarification. The university has established a complaint procedure to handle all types of discrimination complaints, including sexual harassment (USU Policy 305 (http://www.usu.edu/policies/305/)), and has designated the AA/EO Director/Title IX Coordinator as the official responsible for receiving and investigating complaints of sexual harassment.

**Withdrawal Policy and "I" Grade Policy**

Students are required to complete all courses for which they are registered by the end of the semester. In some cases, a student may be unable to complete all of the coursework because of extenuating circumstances, but not due to poor performance or to retain financial aid. The term ‘extenuating’ circumstances includes: (1) incapacitating illness which prevents a student from attending classes for a minimum period of two weeks, (2) a death in the immediate family, (3) financial responsibilities requiring a student to alter a work schedule to secure employment, (4) change in work schedule as required by an employer, or (5) other emergencies deemed appropriate by the instructor.

**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) (http://www.usu.edu/drc/) as early in the semester as possible (University Inn # 101, (435) 797-2444, drc@usu.edu (mailto:drc@usu.edu)). All disability related accommodations must be approved by the DRC. Once approved, the DRC will coordinate with faculty to provide accommodations.

**Diversity Statement**

Regardless of intent, careless or ill-informed remarks can be offensive and hurtful to others and detract from the learning climate. If you feel uncomfortable in a classroom due to offensive language or actions by an instructor or student(s) regarding ethnicity, gender, or sexual orientation, contact:

- Division of Student Affairs: https://studentaffairs.usu.edu (https://studentaffairs.usu.edu/), (435) 797-1712, studentservices@usu.edu (mailto:studentservices@usu.edu), TSC 220
- Access and Diversity: http://accesscenter.usu.edu (http://accesscenter.usu.edu/), (435) 797-1728, access@usu.edu (mailto:access@usu.edu); TSC 315
- Multicultural Programs: http://accesscenter.usu.edu/multiculture (http://accesscenter.usu.edu/multiculture), (435) 797-1728, TSC 315
- LGBTQA Programs: http://accesscenter.usu.edu/lgbtqa (http://accesscenter.usu.edu/lgbtqa/), (435) 797-1728, TSC 3145
Grievance Process

Students who feel they have been unfairly treated may file a grievance through the channels and procedures described in the Student Code: Article VII (https://studentconduct.usu.edu/studentcode/article7).

Full details for USU Academic Policies and Procedures can be found at:
- Student Conduct (http://www.usu.edu/studentconduct)
- Student Code (https://studentconduct.usu.edu/studentcode/)
- Academic Integrity (https://studentconduct.usu.edu/studentcode/article6)
- USU Selected Academic Policies and Procedures (http://www.usu.edu/provost/faculty-life/syllabus.cfm)

Emergency Procedures

In the case of a drill or real emergency, classes will be notified to evacuate the building by the sound of the fire/emergency alarm system or by a building representative. In the event of a disaster that may interfere with either notification, evacuate as the situation dictates (i.e., in an earthquake when shaking ceases or immediately when a fire is discovered). Turn off computers and take any personal items with you. Elevators should not be used; instead, use the closest stairs.

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