Advanced Biology
BIO 6302 – Fall 2019

Class Meeting:
Monday 6:00-8:50pm, CAV 111

Course Coordinator:
Dr. Loren Ammerman
CAV003B, 486-6643
loren.ammerman@angelo.edu

Course Description
Advanced Biology is a required review course for all biology graduate students; each biology graduate student must pass this course to be eligible for graduation with a master’s degree. The basic principles of biology will be reviewed through questions provided by biology graduate faculty members over readings assigned from Campbell Biology. Students must be able to demonstrate a master’s level comprehension of the topics addressed in the questions.

Student Learning Outcomes
1. Gain factual knowledge, including terminology, classifications, methods, and trends
2. Learn fundamental principles, generalizations, or theories
3. Apply knowledge to critically answer essay questions

Text Required
Campbell Biology, 10th edition (dandelion on the cover), by Jane Reece, Lisa Urry, Michael Cain, Steven Wasserman, Peter Minorsky, and Robert Jackson, 2014, Benjamin-Cummings Publishing Co. This text will be the primary source of information used in answering the questions in the question pool.

Course Format
This course is designed to assess your understanding of biology. A list of questions contributed by biology graduate faculty members are provided as a single document on Blackboard. The questions require an answer that is approximately one hand-written page in length. Prior to each meeting, you are expected to assess your understanding of the information presented by answering the questions provided. The student should be prepared for class discussion over the assigned questions. During some course meetings members of the graduate faculty will be available to answer questions. Class time provides you an invaluable opportunity to ask questions, enhance your understanding, evaluate your preparedness, and maintain a schedule of study that will allow you to be prepared for the exam.

Examination
An examination will be given on Monday, November 18, 2019 at 6pm; three hours will be allotted for the exam. The exam will consist of 12 questions that are randomly selected from the question pool.

A second examination will be given Monday, December 9th from 6:00-9:00pm for students who failed the first exam (<70%) and for students who wish to try to improve their score. This second examination will consist of a different set of randomly selected questions from the question pool.
The grade for each examination will be calculated by averaging all question scores (each on a 100 point scale).

**Course Grade**
A grade of 70% or better is required to pass the course. The course grade awarded will be the percentage score obtained on the comprehensive examination and the following conditions.
- First exam grade ≥ 70%:
  - Skip the 2nd exam: Course grade is the examination grade
  - Take the 2nd exam: Course grade is the higher of the two examination grades
- First exam grade < 70%:
  - If the 2nd exam grade ≥ 70%: Course grade is the examination grade.
  - If the 2nd exam grade < 70%: Course grade is an F

Letter grades will be given as follows: A (100-90%), B (89-80%), C (79-70%), and F (<70%). Grades will be rounded up with a 0.5, and down with a 0.4 or lower. The drop date this semester is 31 October by 5:00pm. Drops are handled in Ramport.

A student who fails the course must enroll in Biology 6302 the next semester it is offered. A student who fails the course two times will be dismissed from the biology graduate program.

**Re-grade Procedure**
Any student that would like a graded question to be re-evaluated should write out the justification for the question to be re-graded and submit to the course coordinator. The exam page and the justification will be considered and a final decision regarding the grade that the student should receive on that question will be returned to the student.

**Religious Holy Day**
A student who intends to observe a religious holy day during the semester should make that intention known in writing to the instructor during the first week of the semester and one week prior to the absence. If this submission is completed, a student who is absent from classes for the observance of a religious holy day shall be allowed to take missed exams or assignments scheduled for that day in accordance with syllabus policy.

**Honesty**
Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code, available in the Student Handbook ([http://www.angelo.edu/student-handbook/](http://www.angelo.edu/student-handbook/)). Any form of cheating or plagiarism in this course will result in a zero on the assignment or exam for all involved. Working with others is encouraged, but each person is responsible for their own work. Allowing others access to your work potentially involves you in cheating. If you have any question about what constitutes plagiarism or cheating, please contact the course coordinator.

**Special Accommodations**
If any member of the class feels that he/she has a disability and needs special accommodations please contact the Student Affairs Office, Houston Harte University Center, Suite 112, 942-2047 or studentservices@angelo.edu.
**Schedule**

The question pool is divided into four sections that the graduate faculty agree are topics that all graduates of our program should master: Genetics, Cell Biology, Evolution, and Ecology. Each week you should have completed the questions assigned below. Graduate faculty members are available to answer questions during the semester by appointment.

**Advanced Biology Assignments and Scheduled Meetings – 2019**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Questions*</th>
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</thead>
<tbody>
<tr>
<td>26 Aug</td>
<td>Introduction to the course</td>
<td></td>
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<tr>
<td>2 Sept</td>
<td>Labor Day holiday – no class</td>
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<tr>
<td>9 Sept</td>
<td>GENETICS: Part 1</td>
<td>1-10</td>
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<tr>
<td>16 Sept</td>
<td>GENETICS: Part 2</td>
<td>11-18</td>
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<tr>
<td>23 Sept</td>
<td>CELL BIOLOGY: Part 1</td>
<td>19-35</td>
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<tr>
<td>30 Sept</td>
<td>CELL BIOLOGY: Part 2</td>
<td>36-50</td>
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<tr>
<td>7 Oct</td>
<td>EVOLUTION: Part 1</td>
<td>51-62</td>
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<tr>
<td>14 Oct</td>
<td>EVOLUTION: Part 2</td>
<td>63-75</td>
</tr>
<tr>
<td>21 Oct</td>
<td>ECOLOGY: Part 1</td>
<td>76-86</td>
</tr>
<tr>
<td>28 Oct</td>
<td>ECOLOGY: Part 2</td>
<td>87-94</td>
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<tr>
<td>4 Nov and</td>
<td>Review weeks</td>
<td>all</td>
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<td>11 Nov</td>
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<td>18 Nov</td>
<td><strong>EXAMINATION #1: Monday, Nov. 18, 6-9 pm</strong></td>
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<td>25 Nov</td>
<td>Receive exam scores</td>
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<td>2 Dec</td>
<td>Review week</td>
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<td>9 Dec</td>
<td><strong>EXAMINATION #2: Monday, Dec. 9, 6-9 pm</strong></td>
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* Campbell, 10th edition is the primary reference to use in answering