Course Information

College: Biology for Non-Science Majors I

Instructor Information

Instructor: Brian D. Earle

Semester/Year: 2018-2019

E-Mail Address: bearle@dcccd.edu

Course number: BIOL 1408

Telephone: N/A

Section number: All Sections

Online Office Hours: Arranged

Credit Hours: 4

Campus Office Hours: Arranged

Course Prerequisites

One of the following must be met:

1. DREA 0093 AND DWRI 0093;
2. English as a Second Language (ESOL) 0044 AND 0054; or
3. have met Texas Success Initiative (TSI) Reading and Writing standards AND the college Writing score prerequisite requirement.

You must have all three of the following:

These items are available ONLY from the CVC bookstore:

Voice: 972-860-2900

Web: CVC Bookstore

1. TEXTBOOK*

Title: Modified Mastering Biology with Pearson eText -- Standalone Access Card -- for Biology: Science for Life with Physiology, 6/e:


Authors: Belk and Borden Maier

Publisher: Pearson – Benjamin Cummings

Edition: 6th

Copyright Date: 2019

*(A traditional printed textbook will not be used in this course. Instead you are required to purchase access to the online application MasteringBiology. Access to this application includes an eText version of the textbook)

2. LAB MANUAL: Student Lab Manual for College Biology One, 1st ed. by Brian Earle.

3. LAB KIT: Texas Online Biology Kit. Order # TOB-1

DIGITAL CAMERA: Camera in cell phone or other mobile device is acceptable.

Course Description

Biology for Non-Science Majors I is a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction. Laboratory activities will reinforce a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction.
**Participation Policy**

Since this is an online class, no on-campus attendance is required. However, students are expected to log in and participate actively via the Learner Management System. Try to check emails daily (highly recommended) and access the class at least 5-6 times per week. A minimum of 18-20 hours per week should be devoted to working on course material.

You must show participation in this class prior to the certification date by completing the following:
1. Orientation Quiz
2. Introduction to MasteringBiology.
3. Lab Manual Quiz

**Core Competencies**

This class is designed to help you develop a selection of the following competencies: (see items marked with X):

- **Critical Thinking Skills:** to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.  
  - X
- **Communication Skills:** to include effective development, interpretation and expression of ideas through written, oral and visual communication.  
  - X
- **Empirical and Quantitative Skills:** to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.  
  - X
- **Teamwork:** to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.  
  - N/A
- **Personal Responsibility:** to include the ability to connect choices, actions and consequences to ethical decision-making.
- **Social Responsibility:** to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities.

**Student Learning Outcomes**

Upon successful completion of this course, students will:

**Lecture:**
1. Distinguish between prokaryotic, eukaryotic, plant and animal cells, and identify major cell structures.
2. Identify stages of the cell cycle, mitosis (plant and animal), and meiosis.
3. Interpret results from cell physiology experiments involving movement across membranes, enzymes, photosynthesis, and cellular respiration.
4. Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results.
5. Describe karyotyping, pedigrees, and biotechnology and provide an example of the uses of each.
6. Identify parts of a DNA molecule, and describe replication, transcription, and translation.
7. Analyze evidence for evolution and natural selection.

**Lab:**
1. Apply scientific reasoning to investigate questions, and utilize scientific tools such as microscopes and laboratory equipment to collect and
analyze data.
2. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
3. Communicate effectively the results of scientific investigations.
4. Distinguish between prokaryotic, eukaryotic, plant and animal cells, and identify major cell structures.
5. Identify stages of the cell cycle, mitosis (plant and animal), and meiosis.
6. Interpret results from cell physiology experiments involving movement across membranes, enzymes, photosynthesis, and cellular respiration.
7. Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results.
8. Identify the importance of karyotypes, pedigrees, and biotechnology.
9. Identify parts of a DNA molecule, and describe replication, transcription, and translation.
10. Analyze evidence for evolution and natural selection.

<table>
<thead>
<tr>
<th>Course Outline</th>
<th>This course consists of 10 lessons divided into 2 units: from 6th ed. of Belk and Mair. 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unit 1 Molecular and Cellular Biology</td>
</tr>
<tr>
<td></td>
<td>Lesson 1: Chapter 1</td>
</tr>
<tr>
<td></td>
<td>Lesson 2: Chapter 2</td>
</tr>
<tr>
<td></td>
<td>Lesson 3: Chapters 3 &amp; 4</td>
</tr>
<tr>
<td></td>
<td>Lesson 4: Chapter 5</td>
</tr>
<tr>
<td></td>
<td>Lesson 5: Chapters 6 &amp; 7</td>
</tr>
<tr>
<td></td>
<td>Unit 2 Heredity and Plant Biology</td>
</tr>
<tr>
<td></td>
<td>Lesson 6: Chapter 8</td>
</tr>
<tr>
<td></td>
<td>Lesson 7: Chapter 9</td>
</tr>
<tr>
<td></td>
<td>Lesson 8: Chapter 10</td>
</tr>
<tr>
<td></td>
<td>Lesson 9: Chapter 25</td>
</tr>
<tr>
<td></td>
<td>Lesson 10: Chapter 26</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evaluation Procedures</th>
<th>Point Accumulation and Distribution</th>
<th>Points Each</th>
<th>Total Points</th>
<th>Approx. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orientation Activities (2)</td>
<td></td>
<td>10</td>
<td>20</td>
<td>Extra-credit</td>
</tr>
<tr>
<td>Signature Assignment</td>
<td></td>
<td>100</td>
<td>100</td>
<td>12.5%</td>
</tr>
<tr>
<td>Lesson Quizzes (10)</td>
<td></td>
<td>40</td>
<td>400</td>
<td>50%</td>
</tr>
<tr>
<td>Lab Reports (2)</td>
<td></td>
<td>20</td>
<td>40</td>
<td>5%</td>
</tr>
<tr>
<td>Lab Quizzes (8)</td>
<td></td>
<td>20</td>
<td>160</td>
<td>20%</td>
</tr>
<tr>
<td>Midterm exam (Comprehensive)</td>
<td></td>
<td>50</td>
<td>50</td>
<td>6.25%</td>
</tr>
<tr>
<td>Final Exam (Comprehensive)</td>
<td></td>
<td>50</td>
<td>50</td>
<td>6.25%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>800</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
NOTE: See Assignment Policies below.

| Grading Scale | A = 720-800 points  
| B = 640-719 points  
| C = 560-639 points  
| D = 480-559 points  
| F = 0-479 points   An F may also be given for flagrant plagiarism. |

*Note: For illustration purposes only.

Current grade average based upon completed assignments is available at all times in the MY GRADES area of the Learner Management System course site.

Assignment Policies

Orientation Activities: All students must complete the orientation activities posted in the Orientation area during the first day of classes. The orientation activities conclude with a graded orientation quiz and orientation checklist.

Signature Assignment: This assignment addresses the Texas Core Objectives for Student Learning. The assignment assesses your ability to apply certain skills within the context of biology.

Assignment Grades: All assignments must be submitted to Modified Mastering (Mastering) in order to be graded and recorded. Emailed assignments are not accepted.

Discussion Activities: These assignments are designed to stimulate scientific thought and class interaction to connect your learning of science to the real world. Each discussion activity will begin with a discussion prompt, an assignment to write about a particular topic. Students will be expected to think about the topic, review course materials, and perform research to produce an original written answer. The original answer will be posted in a designated discussion board forum by the date designated in the course schedule. Then, students will be required to read all postings and provide thoughtful responses to two other student’s original answers by the reply date designated in the course schedule. There will be a total of two discussion assignments, one in each of the two units of the course.

Lecture Quizzes: Ten lecture quizzes will be taken online in the course management system and will consist of multiple choice questions over the chapters indicated in the class outline.

Lab Quizzes: Ten lab quizzes will be taken online in the course management system and will consist of multiple choice questions over the chapters indicated in the class outline.

Lab Page Submission: You may be required to upload a copy of a completed page from the lab manual. If requested, this page must be saved in either “jpg” or “pdf” format. Other formats will not be accepted. A score reduction of 10 points will assessed if the required page is not uploaded.
Lab Completion: Regardless of the number of points earned in the course, you must complete all ten labs and take all ten lab quizzes in order to receive a course grade that is passing (≥ 70).

Mid-Term and Final Exams: The mid-term and final exams are comprehensive and will be taken online in the learning management system. The exams will consist of a combination of multiple-choice, short answer, matching, and/or short essay questions over the chapters listed in the class outline.

Extra Credit: Extra credit points will be awarded for completion of both the Orientation Quiz and the Lab Manual Quiz. Links for these quizzes are found in the “Start Here” and should be taken upon completion of the orientation activities. Due dates for any extra credit assignments offered are final and no extensions or late submissions will be allowed.

Course Policies

Quizzes
1. Quizzes and exams may be repeated ONE time to attempt to get a better score. The score for the highest attempt of the two will be recorded as the grade. The second attempt must be completed within 24 hours of the first attempt to be valid.
2. All quizzes are timed and you must submit the quiz within the given time limit, which is generally 25-30 minutes.
3. Exceeding the time limit by more than 5 minutes will result in an automatic ZERO for the quiz.
4. All scores submitted after the posted close or deadline will be revalued to a ZERO.
5. If you experience a technical problem while taking a quiz that prevents you from completing it you must email me within 5 minutes and describe the problem in detail. Also you must contact Learner Management System technical support so they can assist you in resolving the problem. Extensions/retakes will not be granted unless these steps are taken.

Grade Book
1. All assignment scores will be posted in the grade book.
2. The final course grade will be determined from these grades only. If assignment scores are missing, it is the student’s responsibility to email the instructor for corrective action.
3. The grade book will be “frozen” one week prior to the end of the semester. New assignments can be submitted but NO corrective action will be taken once the grade book is frozen.
4. All/any calculations made by the grade book will assumed to be correct and official.

Student-Instructor Contract
To create a course environment focused on understanding of the course content, application to the student’s life, and fostering student responsibility, both instructor and student will attempt to follow these guidelines: The instructor agrees to provide timely responses to student requests or inquiries and communicate frequently through email, online chat, course announcements, and timely grading with feedback. In return, the student agrees to devote a reasonable amount of time and energy to successful completion of the course, to meet all deadlines, to avoid plagiarism and other forms of cheating, and to communicate frequently and clearly with the instructor, particularly when difficulties arise.
Attendance and Participation
Students are expected to log-in and utilize the course materials and activities in Learner Management System on a regular basis. As a minimum expectation, you should login to the course at least 5-6 times per week.

As a general guideline, you should be actively working with the study materials for about 9-10 hours MINIMUM per week. You should also be actively working with the lab materials and completing experiments using the lab kit for about 9-10 hours each week. In total, to be successful, students should spend a MINIMUM of 18-20 hours working on course materials each week of the semester.

Late Work, Lab and/or Exam Make-up Policy
This is a no excuses class. Ample time has been allotted to complete each assignment. All assignments are expected on or before the deadline indicated in the Class Outline and Due Dates document located in the Syllabus – Due Dates folder. Students are expected to plan in advance to allow time to complete all graded assignments and assessments by the due date and time listed in the class outline. Procrastination is something you cannot do and still be successful in an online course.

Problems and Emergencies
If a medical or other serious situation arises that will prevent the student from completing one or more assignments or an assessment by the due date, the student must contact the instructor immediately to request approval to submit an assignment late. For all work EXCEPT assessments, an assignment submitted late (after approval is given) may be assigned a late penalty of 25% for work submitted within two days of the due date and 50% for work submitted within 3 days after the due date. For assessments, a student will be required to provide written documentation of the emergency that caused the student to miss the assessment before make-up arrangements will be made. Technical problems occurring during the last hour before an assignment or assessment is due does NOT count as an emergency. Start assessments well before the time they must be submitted.

Communication
The OFFICIAL means of communication for this class will be EMAIL. You are responsible for ensuring that your email address is correctly listed in Learner Management System (check this on the first day) and that you are receiving emails from the instructor. To ensure you receive all notices from the instructor in a timely manner, check your email frequently (at least 3-4 times per week).

If you send the instructor an email with a technical problem or other request that requires a rapid response to meet a deadline, make sure to use the correct subject line and then check your email frequently between the time you send your request/problem and the due date. Extensions will NOT be granted in situations where the instructor responded before the due date with instructions, but the student did not check frequently enough to see the response.

NOTE: Generally, email received over the weekend will not be responded to until Monday.
Required Subject Line Format

Please send email using these guidelines:
1. All email should be sent to: bearle@dccc.edu
2. Include your full name and student ID number on all email.
3. The subject line of the email must include: **Course Name and Number: (your subject)** (The email will not be opened unless your **Course Name and Number** are listed as the subject)
4. Begin all emails with the following: **“This is (your full name) in the (Course Name and Number) class that started in (month the class started).”** Continue your message from here.
5. Provide a clear and detailed stating of your concern or problem. We are often not given enough information to understand the nature of the request.
6. **Always copy the original email when replying to a previous email.**
7. Respond promptly (within 24 hrs) to any email requests from the instructor Failure to respond to email from the instructor within 48 hrs can detrimentally affect your grade.
8. **Please follow standards of civil behavior when emailing others.**

The instructor will reply to all emails sent in the proper format within 24 hours, so double check your format and re-send your email if you do NOT hear back from the instructor within this time frame.

Do NOT assume that an unanswered email has been received -- ALWAYS RE-SEND if you do not receive a reply in 24 hours.

The instructor is NOT responsible for emails that were not received. It is your responsibility to follow up.

**NOTE:** The instructor reserves the right to modify any course requirements and due dates as necessary to manage and conduct this class. The intent of the instructor is to promote the best education possible within prevailing conditions affecting this class. You are responsible for contacting the instructor and seeking clarification of any requirement that is not understood in the syllabus.

**Institutional Policies**

Please refer to the following for policies regarding this college:
www.cedarvalleycollege.edu/syllabipolicies