BIOLOGY 1 BIOL-1406
Department of Life Sciences
Fall 2017

A. COURSE INFORMATION

Course number/section: BIOL-1406.002
Class meeting time: 9:00-9:50pm MWF
Class location: OCNR 115
Course Website: https://bb9.tamucc.edu

B. INSTRUCTOR INFORMATION

Instructor: Jeffrey W. Turner, Ph.D.
Office location: Science Lab 1, Room 104
Office hours: M -2:00pm-5:00pm; W-2:00pm-5:00pm
Telephone: 361-825-6206
E-mail: jeffrey.turner@tamucc.edu
Appointments: Please make appointments through email

C. COURSE DESCRIPTION

Catalog Course Description
Presentation of basic biological concepts including scientific method, cytology, energetics, nucleic acids and genetics. This course is suitable for all majors. This course counts toward the natural science component of the University Core Curriculum. Students must place into BIOL 1406 by achieving a sufficient score on either the SAT or ACT or completing a mathematics course. SAT scores required for placement in BIOL 1406 are 500 on Critical Reading Section and 500 on the Mathematics section. An ACT score of 21 on each of the Math, English, and Reading sections can also be used. Students with test scores lower than this, may take BIOL 1406 if they completed a pre-calculus course in high school or have completed MATH 1314 College Algebra or equivalent.

SMTE 0091 is a co-requisite for this course. Documented completion of this safety training is required early in the semester for continued participation in this course. Safety training given during a laboratory meeting early in the semester is required for continued participation in this course.

D. PREREQUISITES AND COREQUISITES

Prerequisites
MATH-1314 and ENGL-1301 or ACT English score of 21 and ACT Math score of 21

Corequisite
SMTE0091
E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

Required Textbook

Supplies
Lab coat
Students are required to print the BIOL-1406 Laboratory Manual.

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT

Assessment is a process used by instructors to help improve learning. Assessment is essential for effective learning because it provides feedback to both students and instructors. A critical step in this process is making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.

At the end of the semester, the student will be able to:

1. Discuss the basic concepts of chemistry as they relate to living organisms.
2. Describe how a living cell is constructed, and recognize the relationships among its components.
3. Explain the physical and chemical bases for the activities of living cells and elucidate how these activities are controlled.
4. Demonstrate familiarity with the cellular and molecular processes involved in inheritance.
5. Identify examples of recent advances in applied cellular and molecular biology and evaluate their impacts on society.

G. INSTRUCTIONAL METHODS AND ACTIVITIES

Lecture will be the primary form of instruction. However, I will make use of “active learning” strategies such as flipping the classroom, challenge-based instruction, peer instruction and cooperative learning. Occasionally, classroom exercises will require student participation. This allows you to be an owner or co-producers of your education. For instance, you may be asked to collaborate with classmates to solve a problem and then share the answer with the class.
H. MAJOR COURSE REQUIREMENTS AND GRADING

Major Course Requirements
Grading will include classroom-based (75%) and laboratory-based (25%) assessments. The classroom-based grade will be based on 3 exams and a cumulative final exam. The laboratory-based grade will be based on laboratory reports, worksheets, quizzes, and a practical skills exam.

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Points</th>
<th>Percentage of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 1</td>
<td>150</td>
<td>15%</td>
</tr>
<tr>
<td>Exam 2</td>
<td>150</td>
<td>15%</td>
</tr>
<tr>
<td>Exam 3</td>
<td>150</td>
<td>15%</td>
</tr>
<tr>
<td>Final Exam (cumulative)</td>
<td>300</td>
<td>30%</td>
</tr>
<tr>
<td>Laboratory</td>
<td>250</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1000</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Grades will be based on the following:

A. 90.0% – 100.0% Excellent
B. 80.0% – 89.9% Good
C. 70.0% – 79.9% Satisfactory
D. 60.0% – 69.9% Passing
E. 0.0% – 59.9% Failing

I. COURSE CONTENT/SCHEDULE

<table>
<thead>
<tr>
<th>WEEK</th>
<th>DAY</th>
<th>DATE</th>
<th>TOPIC</th>
<th>CHAPTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M</td>
<td>8/28</td>
<td>Course Introduction</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>8/30</td>
<td>Evolution and the Foundation of Biology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>9/1</td>
<td>Evolution and the Foundation of Biology</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>M</td>
<td>9/4</td>
<td>Labor Day Holiday</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>9/6</td>
<td>The Chemical Content of Life</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>9/8</td>
<td>The Chemical Content of Life</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>M</td>
<td>9/11</td>
<td>Carbon and the Molecular Diversity of Life</td>
<td>3, 4</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>9/13</td>
<td>Carbon and the Molecular Diversity of Life</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>9/15</td>
<td>A Tour of the Cell</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>M</td>
<td>9/18</td>
<td>A Tour of the Cell</td>
<td>4, 5</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>9/20</td>
<td>Membrane Transport and Cell Signaling</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>9/22</td>
<td>Membrane Transport and Cell Signaling</td>
<td></td>
</tr>
<tr>
<td>Week</td>
<td>M</td>
<td>W</td>
<td>F</td>
<td>Monday</td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>----------------------------------------------------------------</td>
</tr>
<tr>
<td>6</td>
<td>10/2</td>
<td>10/4</td>
<td>10/6</td>
<td>Introduction to Metabolism</td>
</tr>
<tr>
<td>7</td>
<td>10/9</td>
<td>10/11</td>
<td>10/13</td>
<td>Photosynthesis</td>
</tr>
<tr>
<td>8</td>
<td>10/16</td>
<td>10/18</td>
<td>10/20</td>
<td>The Cell Cycle</td>
</tr>
<tr>
<td>10</td>
<td>10/30</td>
<td>11/1</td>
<td>11/3</td>
<td>Mendel and the Gene Idea</td>
</tr>
<tr>
<td>12</td>
<td>11/13</td>
<td>11/15</td>
<td>11/17</td>
<td>Gene Expression: From Gene to Protein</td>
</tr>
<tr>
<td>13</td>
<td>11/20</td>
<td>11/22</td>
<td>11/24</td>
<td>Exam III</td>
</tr>
<tr>
<td>14</td>
<td>11/27</td>
<td>11/29</td>
<td>12/1</td>
<td>Development, Stem Cells, and Cancer</td>
</tr>
<tr>
<td>15</td>
<td>12/4</td>
<td>12/6</td>
<td>12/8</td>
<td>Bacteria and Viruses</td>
</tr>
<tr>
<td>16</td>
<td>12/11</td>
<td></td>
<td></td>
<td>Final Exam: 800 – 1030AM</td>
</tr>
</tbody>
</table>

Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.
J. COURSE POLICIES

Deadline for Dropping a Course with a Grade of W (University)
I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with your academic advisor, the Financial Aid Office, and me, before you decide to drop this course. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Please consult the Academic Calendar (http://www.tamucc.edu/academics/calendar/) for the last day to drop a course.

Attendance/Tardiness
Students are expected to attend on time in every scheduled class and laboratory meeting. If the student is absent in the lecture, it is the student’s responsibility to obtain missed materials. If a student is absent in the laboratory, the student will be given a zero grade for the laboratory activity performed that day. Make-up is only permitted for an excused absence and emergencies.

Students with University’s approved absence (athletics, military duty, others) must notify the instructor in advance of the scheduled absence. In case of emergencies, students should inform the instructor about the situation as soon as possible.

Proper documentation is required for excused absences. It must be in writing and signed by the person of authority (coach, doctor, funeral director). Personal reasons such as getting married, going on vacation, attending weddings, reunions, household or car repairs and NON-EMERGENCY medical or dental visits are not acceptable.

Late Work
In the event of an absence, it is the student’s responsibility to find out what you missed, get notes, learn about changes in the syllabus, etc. An unexcused absence will result in a 0 for that assignment. No late lab worksheets or lab reports are accepted.

Missed Exam
A special make-up exam is given to students with excused absence (excused per TAMUCC guidelines). The format of any make-up exams will be identical to the regular exams.

Extra Credit
Opportunities to earn bonus points are provided for the ENTIRE CLASS.

Cell Phone Use
Students are required to put their cell phones to silent mode during class. Taking pictures and sending text messages during class are not allowed.

Laptop Use
Laptops, iPads or similar tablet usage is limited to class-related activities such as taking notes, looking at the PowerPoint lectures and study guides.

Food in Class
Please eat your meals before or after class. However, I will not take food away from you.

Participation
Participation in class is voluntary, but encouraged. Extra credit points will be available for participation.

K. COLLEGE AND UNIVERSITY POLICIES

- **Academic Integrity (University)**
  University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

- **Classroom/Professional Behavior**
  Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

- **Statement of Civility**
  Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

- **Deadline for Dropping a Course with a Grade of W (University)**
  The grade of W will be assigned to any student officially dropping a course. Please consult with the instructor before you decide to drop to be sure it is the best thing to do.
Just stopping attendance and participation **WILL NOT** automatically result in your being dropped from the class. Should dropping the course be the best course of action, visit the Office of the University Registrar for the Course Drop Form that **must** be submitted. No student is eligible to receive a W without completing the official drop process by this deadline. Last day to drop the class is November 11, 2016. Last day to withdraw from the University, is December 05, 2016.

- **Grade Appeals (College of Science and Engineering)**
  As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at [http://www.tamucc.edu/provost/university_rules/index.html](http://www.tamucc.edu/provost/university_rules/index.html), and the College of Science and Engineering Grade Appeals webpage at [http://sci.tamucc.edu/students/GradeAppeal.html](http://sci.tamucc.edu/students/GradeAppeal.html). For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

- **Disability Services**
  The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116.

  If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

  [http://disabilityservices.tamucc.edu/](http://disabilityservices.tamucc.edu/)

- **Statement of Academic Continuity**
  In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be
operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

L. OTHER INFORMATION

- Academic Advising
  The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

GENERAL DISCLAIMER

I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.