BIOLOGY 1 BIOL-1406
Department of Life Sciences
Spring 2016

A. COURSE INFORMATION

Course number/section: BIOL-1406.001
Class meeting time: 3:30-4:45pm MW
Class location: IH 160
Course Website: https://bb9.tamucc.edu

B. INSTRUCTOR INFORMATION

Instructor: Stella Doyungan, Ph.D.
Office location: EN 308
Office hours: Monday -10:00-12:00noon and 01:00-02:00pm
Tuesday and Thursday-11:00-12:00noon
Telephone: 361-825-3686
E-mail: stella.doyungan@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 Biology 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 precalculus 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

Access to Mastering Biology

Supplies
Qwizdom responder
Lab coat
Students are required to print the BIOL-1406 Laboratory Manual that will be posted in BlackBoard.

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:

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

G. INSTRUCTIONAL METHODS AND ACTIVITIES

I lecture using PowerPoint and students listen and fill-up interactive lecture notes. Videos, animations and illustrations are shown to supplement lecture.

H. MAJOR COURSE REQUIREMENTS AND GRADING

Major Course Requirements
Lecture contributes 3/4 of your grade, and laboratory contributes 1/4 of your grade:
Lecture

The lecture grade comprises grades in lecture exams, final exam, quizzes and homeworks.

1. **Lecture and Final Exams.** The exams cover specific assigned topics. They consist of multiple choice questions (identification, fill-in the blanks, matching type, true-false and short answer types). There are three lecture exams and final exam during the semester; each exam is worth 100 points.

2. **Quizzes.** Every lecture meeting, there are some questions for points and Qwizdom responders are used to answer these questions. The students are required to bring their functioning Qwizdom responder every lecture meeting. They must be present to answer the questions and are not permitted to use another student’s responder. Answering questions for another student absent in lecture is cheating and will not be tolerated. There is NO make-up for missed quizzes. The quizzes are worth 100 points.

3. **Homeworks.** There is homework for each chapter to be discussed in lecture; These homeworks can be accessed through Mastering Biology. The homeworks open and close at particular dates so take note of their opening and closing dates. There is NO make-up for missed homeworks. The homeworks are worth 100 points.

**Grading in Lecture**

<table>
<thead>
<tr>
<th>Component</th>
<th>Total Possible Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture exams (100 pts/exam x 3 exams)</td>
<td>300</td>
</tr>
<tr>
<td>Final exam</td>
<td>100</td>
</tr>
<tr>
<td>Quizzes</td>
<td>100</td>
</tr>
<tr>
<td>Homeworks</td>
<td>100</td>
</tr>
</tbody>
</table>

Total possible points = 600 points

Laboratory

The laboratory grade comprises points in laboratory reports, worksheets, pre-lab quizzes and practical exam.

**Final grading:** Your final number and letter grade will be based on the grade you earn in the lecture and laboratory. Lecture grade is 75% and laboratory grade is 25%.

**Number and Letter grade designation**

90-100=A; 80-89=B; 70-79=C; 60-69=D; 59 and less = F

Final Grade = lecture grade (0.75) + laboratory grade (0.25)

Example: Final grade = 70 (0.75) + 90 (0.25) = 52.5 + 22.5 = 75 = C
## 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>W</td>
<td>01/20</td>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>M</td>
<td>01/25</td>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>01/27</td>
<td>Carbon and the molecular diversity of life</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>M</td>
<td>02/01</td>
<td>Carbon and the molecular diversity of life (cont’d)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>02/03</td>
<td>A tour of the cell</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>M</td>
<td>02/08</td>
<td>A tour of the cell (cont’d)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>02/10</td>
<td>Membrane transport</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>M</td>
<td>02/15</td>
<td>Introduction to metabolism</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>02/17</td>
<td><strong>Exam 1</strong></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>M</td>
<td>02/22</td>
<td>Introduction to metabolism (cont’d)</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>02/24</td>
<td>Cellular respiration and fermentation</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>M</td>
<td>02/29</td>
<td>Cellular respiration and fermentation (cont’d)</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>03/02</td>
<td>Photosynthesis</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>M</td>
<td>03/07</td>
<td>Photosynthesis (cont’d)</td>
<td></td>
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<tr>
<td></td>
<td>W</td>
<td>03/09</td>
<td><strong>Exam 2</strong></td>
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</tr>
<tr>
<td>9</td>
<td>M</td>
<td>03/14</td>
<td>No class – Spring Break</td>
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<tr>
<td></td>
<td>W</td>
<td>03/16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>M</td>
<td>03/21</td>
<td>Cell cycle</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>03/23</td>
<td>Cell cycle (cont’d)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>M</td>
<td>03/28</td>
<td>Meiosis</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>03/30</td>
<td>Meiosis (cont’d)</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>M</td>
<td>04/04</td>
<td>Mendel and the gene idea</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>04/06</td>
<td>Mendel and the gene idea (cont’d)</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>M</td>
<td>04/11</td>
<td>Chromosome basis of inheritance</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>04/13</td>
<td>Chromosome basis of inheritance (cont’d)</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>M</td>
<td>04/18</td>
<td><strong>Exam 3</strong></td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>04/20</td>
<td>Molecular basis of inheritance</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>M</td>
<td>04/25</td>
<td>Molecular basis of inheritance (cont’d)</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>04/27</td>
<td>Gene expression: From gene to protein</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>M</td>
<td>05/02</td>
<td>Gene expression: From gene to protein (cont’d)</td>
<td></td>
</tr>
</tbody>
</table>

Final exam: Monday, May 09, 2016, 1:45-4:15 pm

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

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 and Make-up Exams
No late lab worksheets and lab reports are accepted.

Extra Credit
NO INDIVIDUAL extra credit projects or assignments will be available in this class. Opportunities to earn bonus points however, are provided for the ENTIRE CLASS.

a) There can be bonus points built as extra questions in the quizzes and homeworks. These bonus points cannot be made up.

b) 15 bonus points (these 15 points is 2.5% of the total possible points which is 600 points in this class) are given to students who attend 80% (19 out of 23 class days, see below) of class lecture days (Exam days not included). This 15-bonus points is ALL OR NONE, which means that if your attendance is less than 80% you will not get the 15 bonus points. Attendance in class is taken by answering the attendance question using the Qwizdom remote control at the end of the lecture. If you leave early and cannot answer this question, you are marked absent.

Class days:
Month of January 2016 : Jan 27
Month of February 2016 : Feb 1, 3, 8, 10, 15, 22, 24, 29
Month of March 2016 : Mar 2, 7, 21, 23, 28, 30
Month of April 2016 : Apr 4, 6, 11, 13, 20, 25, 27
Month of April 2016 : May 2
c) Bonus points are given to students for attending SI sessions.
10 or more attendance (A) =10pts; 9A =9pts; 8A =8pts; 7A=7pts; 6A=6 pts;
5A =5pts; 4A=4pts; 3A =3pts; 2A =2pts; 1A =1pt
Students attending ALL SI sessions earn 5 points more.

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 PC usage is limited to class-related activities such as
taking notes and looking at the PowerPoint lectures and study guides.

Missed Exam
Special exam is given to students with excused absence (excused per TAMUCC
guidelines) and the format of such exam is ESSAY and SHORT ANSWER TYPES.

Participation
Participation in class is voluntary.

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 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 Friday, April 08, 2016. Last day to withdraw from the University, is on Monday, May 02, 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/

- **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.