Midland College  
Syllabus  
2014 - 2015  
BIOL 1406 L  
General Biology I Lab  
4 Semester Credit Hours  
(3 Lecture/3 Lab)

Instructor Information:  
Instructor: Click here to enter text.  
Office: Click here to enter text.  
Phone: Click here to enter text.  
Email: Click here to enter text.  
Office Hours: Click here to enter text.

Students MUST actively participate by completing an academic assignment required by the instructor by the official census date. Students who do not actively participate in an academically-related activity will be reported as never attended and dropped from the course.

Course Description:  
This laboratory-based course accompanies Biology 1406, Biology for Science Majors I. Laboratory activities will reinforce the fundamental principles of living organisms, including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Study and examination of the concepts of cytology, reproduction, genetics, and scientific reasoning are included. Pre-requisite: TSI complete in Reading and Math.

Core Objectives:  
Critical Thinking, Communication Skills, Empirical & Quantitative, Teamwork.

Text, References and Supplies: Canvas Accessible:  
Computer: Access to a working computer throughout the course with the ability to access the internet and Canvas.

Student Learning Outcomes:  
Upon successful completion of this course, students will:  
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. Describe the characteristics of life.  
5. Explain the methods of inquiry used by scientist.  
6. Identify the basic properties of substances needed for life.
7. Compare and contrast the structures, reproduction, and characteristics of viruses, prokaryotic cells, and eukaryotic cells.
8. Describe the structure of cell membranes and the movement of molecules across a membrane.
9. Identify the substrates, products, and important chemical pathways in metabolism.
10. Identify the principles of inheritance and solve classical genetic problems.
11. Identify the chemical structures, synthesis, and regulation of nucleic acids and proteins.
12. Describe the unity and diversity of life and the evidence for evolution through natural selection.

Students will learn techniques to demonstrate osmosis, diffusion, and respiration. Students will learn the basic principles of genetics and evolution and perform exercises to demonstrate these principles.

**Student Contributions, Responsibilities and Class Policies:**
It is the student’s responsibility to read and understand the official Midland College attendance and withdrawal policies as stated in the college catalog. Students that are tardy, take excessive break time, or leave before completion of the day's exercise (including proper clean-up), may be counted absent. This will be at the discretion of the instructor. Regular attendance is required to do well in lab. Laboratory exercises and laboratory practicals require extensive preparation and set-up. The lab instructor’s handout will outline policies pertaining to absences. It is the student’s responsibility to contact the lab instructor regarding absences.

**Attendance Policy:**
It is the responsibility of the students to know the policies and procedures associated with absences. These policies are set by instructors. Excused absences may include, but are not limited to, illness, severe weather, and death in the family. Instructors will determine whether or not an absence is excused. [http://catalog.midland.edu/content.php?catoid=6&navoid=673](http://catalog.midland.edu/content.php?catoid=6&navoid=673)

**Withdrawal Policy:**
Students who have enrolled in a Texas public institution of higher education as a first-time freshman in fall 2007 or later are permitted to drop no more than six courses during the entire undergraduate career. This limit includes all transfer work taken at a Texas institution of higher education and to second baccalaureate degrees. This statute was enacted by the State of Texas in spring 2007 (Texas Education Code 51.907). Any course that a student drops after Census Day is counted toward the six-course limit if “(1) the student was able to drop the course without receiving a grade or incurring an academic penalty; (2) the student’s transcript indicates or will indicate that the student was enrolled in the course; and (3) the student is not dropping the course in order to withdraw from the institution.” [http://catalog.midland.edu/content.php?catoid=6&navoid=673](http://catalog.midland.edu/content.php?catoid=6&navoid=673)

**Scholastic Dishonesty:**
Midland College does not tolerate scholastic dishonesty or academic misconduct in any form. Please read the MC Student Handbook on this subject. [http://catalog.midland.edu/content.php?catoid=6&navoid=673](http://catalog.midland.edu/content.php?catoid=6&navoid=673)
For safety concerns, students are not allowed to eat or drink in the laboratory, and are expected to follow all safety guidelines as instructed.

Students are strongly encouraged to seek extra help if they are having difficulty with the assigned material.

**Evaluation of Students:**
Course Grade will be determined according to the following.

Lab: 30% of total course grade, may be composed of the following

- **Exam** (1-5 exams may be given during the semester): 50 – 100%
- **Weekly activities** (quizzes and assignments): 0 – 40%
- **Attendance**: 0 – 10%

Grading policies will be discussed on the lab instructor’s handout.

**Course Schedule:**
This class meets for 3 lecture hours per week and 3 laboratory hours per week. For a tentative schedule of the class meetings and laboratory meetings, please refer to the schedule distributed to each student on the first class meeting (See Instructor Handout).

**ADA Statement:**
Midland College provides services for students with disabilities through Student Services. In order to receive accommodations, students must place documentation on file with the Counselor/Disability Specialist. Students with disabilities should notify Midland College prior to the beginning of each semester. Student Services will provide each student with a letter outlining any reasonable accommodations. The student must present the letter to the instructor at the beginning of the semester.

**Math/Science Division Information:**
Division Dean: Dr. Margaret Wade 125 AHSF 685-4615
Program Chair: Dr. Miranda Poage 155 FSB 685-6754
Division Secretary: Ms. Brenda Smith 124 AHSF 685-6413