

## **Midland College Syllabus**

2021 - 2022

BIOL 1408

Introduction to Biology I (Non-Majors)

Lecture

4 Semester Credit Hours

(3 Lecture/3 Lab)

*Core Curriculum Course*

### **Instructor Information:**

**Instructor:** [Click here to enter text.](#)

**Phone:** [Click here to enter text.](#)

**Office Hours:** [Click here to enter text.](#)

**Office:** [Click here to enter text.](#)

**Email:** [Click here to enter text.](#)

**Notice:** 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 may be reported as never attended and dropped from the course.

### **Course Description:**

Fundamental principles of living organisms including physical and chemical properties of life, organization, and function. Concepts of reproduction, genetics and the scientific method are included. This course is suitable as a required lab science for non-biology majors and may not be substituted for BIOL 1406.

Fundamental principles of living organisms including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of reproduction, genetics, ecology, and the scientific method are included. Prerequisite: TSI complete in Reading.

### **Core Objectives:**

This course fulfills four hours of the Life and Physical Science requirement in the Midland College **Core Curriculum**. The Core Curriculum is a set of courses that provide students with a foundation of knowledge, skills and educational experiences that are essential for all learning. The Core Curriculum is available in the [Midland College Catalog](#). As part of the core, this course addresses the following four objectives:

Critical thinking skills – Students will demonstrate critical thinking by analyzing and applying appropriate terminology and knowledge to interpret problems involving chemistry of the cell, movement across membranes, cellular processes, cellular reproduction, genetics, and evolution.

Communication skills – Students will demonstrate communication skills in written, oral, and visual form within the classroom setting through instructor posed questions, collaborative peer assignments, and exams.

Empirical and Quantitative skills – Students will demonstrate empirical and quantitative skills by analyzing applied examples of biology through course assignments and exams.

Teamwork – Students will demonstrate teamwork skills by functioning as collaborative and cooperative small groups to answer instructor posed questions and/or complete assignments.

**Text, References and Supplies:**

Lecture Text: Audesirk, Biology: Life on Earth, 11<sup>th</sup> ed., Pearson. ISBN-13: 9780134256160; Optional

Computer: Access to a working computer throughout the course with the ability to access the internet and Canvas.

**Student Learning Outcomes:**

Upon completion of this course the student will

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.

**Student Contributions, Responsibilities and Class Policies:**

Students will be expected to comply with the policies outlined in the Midland College student handbook. Instructor policies concerning attendance and academic behavior are consistent with the policies in the student handbook. Regular attendance is required to do well in this class. Lecture and lab are considered as one class, so any absences in both sections will be combined in order to determine overall 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. Please visit the Midland College Catalog

Students will be evaluated based on the results of examinations given throughout the semester. Your lecture instructor will inform you on the first day of class as to



**Non-Discrimination Statement**

Midland College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following individual has been designated to handle inquiries regarding the non-discrimination policies:

**Tana Baker**

Title IX Coordinator/Compliance Officer  
3600 N. Garfield, SSC 131  
Midland, Texas 79705  
(432) 685-4781  
[tbaker@midland.edu](mailto:tbaker@midland.edu)

For further information on notice of non-discrimination, visit the ED.gov Office of Civil Rights website, or call 1 (800) 421-3481.

**Americans with Disabilities Act (ADA) Statement:**

Midland College provides services for students with disabilities through Student Services. In order to receive accommodations, students must visit [www.midland.edu/accommodation](http://www.midland.edu/accommodation) and complete the Application for Accommodation Services located under the Apply for Accommodations tab. Services or accommodations are not automatic, each student must apply and be approved to receive them. All documentation submitted will be reviewed and a "Notice of Accommodations" letter will be sent to instructors outlining any reasonable accommodations.

**Math & Science Division Information:**

Division Office: AHSF 124 (432) 685-4561  
Division E-Mail: [mns@midland.edu](mailto:mns@midland.edu)

Department Chair: Mr. Tomas Hernandez (432) 685-6751  
Dean: Dr. Miranda Poage  
Secretary: Sarah Anderson  
Clerk: Liliana Orcutt

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