Revised 06/12/2025

BSC 1406-R0E

COURSE SYLLABUS: Fall 2025

INSTRUCTOR INFORMATION

Instructor: Angela Rouse
Office Location: CCA 313 at RCHS
Office Hours: by appointment
Office Phone: 972-636-9991 ext. 2863
University Email Address: Angela.Rouse@tamuc.edu

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook Required:
Biology on OpenStax by Mary Ann Clark, Matthew Douglas, and Jung Choi. The textbook will be imbedded into the D2L Brightspace course. You may request a copy at https://openstax.org/details/books/biology-2e . ISBN-13: 978-1-947172-51-7

Course Description

BSC 1406 - Biology for Science Majors I (lecture + lab) - Four semester hours (3 lec/1 lab). This course is the first half of the Introductory Biology series. It is designed for the following majors: Broadfield Biology, Pre-Med, Pre-Allied Health, and Pre-Vet. Topics covered include biological evolution, biochemistry, cellular and molecular biology, genetics, and microbiology.

Course Objectives: BSC 1406 Introductory Biology I provides an introduction to the study of biology and is intended for biology, pre-professional, and pre-vet majors. As such, a strong background in biology and chemistry is suggested. This course is designed as the first half of the freshman biology sequence and covers topics including biological evolution, biochemistry, cellular biology, and molecular genetics. With successful competition of this course, students will be able to demonstrate understanding of the above concepts by definition, explanation, and use of these ideas in examinations and laboratory exercises.

CORE LEARNING OUTCOMES:

- In written, oral, and/or visual communication, A&M-Commerce students will communicate in a manner appropriate to the audience and occasion, with an evident message and organizational structure.
- Students will be able to interpret, test and demonstrate principles revealed in empirical data.
- Students will be able to work together toward a shared purpose relevant to the course or discipline with a sense of shared responsibility for meeting that purpose.
- Students will be able to analyze, evaluate, or solve problems when given a set of circumstances or data.

Student Learning Outcomes (Should be measurable; observable; use action verbs)

1. Describe the characteristics of life.
2. Explain the methods of inquiry used by scientists.
3. Identify the basic requirements of life and the properties of the major molecules needed for life.
4. Compare and contrast the structures, reproduction, and characteristics of viruses, prokaryotic cells, and eukaryotic cells.
5. Describe the structure of cell membranes and the movement of molecules across a membrane.
6. Identify the substrates, products, and important chemical pathways in metabolism.
7. Identify the principles of inheritance and solve classical genetic problems.
8. Identify the chemical structures, synthesis, and regulation of nucleic acids and proteins.
9. Describe the unity and diversity of life and the evidence for evolution through natural selection.
10. Apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
11. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
12. Communicate effectively the results of scientific investigations.

COURSE REQUIREMENTS

NOTE THAT This is a Majors-level course, and you are expected to allot adequate time to regularly study the material on your own- this material forms the foundation for your advanced classes in the coming terms. You are expected to read all textbook chapters corresponding to topics covered in lecture.

We will not use every chapter of the textbook in lecture, and we may discuss some aspects in more detail than your text goes into- so be sure to keep up with lecture notes too! If you miss a lecture, you are still responsible for that day's material- read the chapter, get notes from someone in class, and see me for any clarification. If you have difficulty with the material, feel free to see me as soon as you can for advice on how best to improve.

Instructional Methods

This course meets daily and includes multiple types of instruction—lecture, texts, videos, and student-led activities. Students are expected to engage in all parts of the lesson and

provide feedback on their learning needs. Content quizzes will be given weekly in order to assess the topics and activities. Quizzes will be completed online and if you are absent, you must complete the quiz online before the close time. Content quizzes build the exams. You may use your notes on the content quizzes but not on the exams. There will be 4 content exams and an additional comprehensive final exam. Exams are taken in class only. You may not retake or make up missed exams. YOU MUST SCHEDULE A TESTING TIME IN ADVANCE OF MISSING THE EXAM.

.

GRADING

Students will be given the following opportunities to demonstrate knowledge of class material. The course has a total of 1000 points.

Lecture Grades: 75% of total grade

Exams:	= 360 points (4 exams; each exam is worth 90 points)
Comprehensive Final:	= 90 points (1)
s:	= 200 points (11 quizzes; 20 points each, lowest quiz grade will be dropped)
nents:	= 100 (11 assignments, 10 points each, lowest assignment will be dropped)

Lab Work: 25% of the total grade

Participation	= 125 points (5 labs; 25 points each)
Reports & Conclusion	= 125 points (5 labs; 25 points each)

Final grades in this course will be based on the following scale:

A = 90%-100%
B = 80%-89%
C = 70%-79%
D = 60%-69%
F = 59% or Below

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by East Texas A&M University have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:
https://community.brightspace.com/s/article/Brightspace-Platform-Requirements

LMS Browser Support:
https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

Zoom Video Conferencing Tool

The *syllabus/schedule are subject to change.*

https://inside.etamu.edu/campuslife/CampusServices/CITESupportCenter/Zoom_Account.aspx?source=universalmenu

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@etamu.edu**.**

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

https://community.brightspace.com/support/s/contactsupport

Interaction with Instructor Statement

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook. https://inside.etamu.edu/admissions/registrar/documents/studentGuidebook.pdf.

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: https://www.britannica.com/topic/netiquette

TAMUC Attendance

For more information about the attendance policy please visit the Attendance webpage and Procedures 13.99.99.R0.01
http://www.etamu.edu/admissions/registrar/generalInformation/attendance.aspx

Academic Integrity

Students at East Texas A&M University are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03
Undergraduate Student Academic Dishonesty Form

http://www.etamu.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf

Graduate Students Academic Integrity Policy and Form

Graduate Student Academic Dishonesty Form

https://inside.etamu.edu/aboutus/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10.pdf

Students with Disabilities-- ADA Statement

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 have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
East Texas A&M University
Velma K. Waters Library Rm 162

The *syllabus/schedule are subject to change.*

Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
Email: studentdisabilityservices@etamu.edu

Website: Student Disability Services

https://www.etamu.edu/student-disability-services/

Nondiscrimination Notice

East Texas A&M University will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in East Texas A&M University buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and East Texas A&M Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the Carrying Concealed Handguns On Campus document and/or consult your event organizer.
Web url:
http://www.etamu.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all East Texas A&M campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

East Texas A&M Supports Students' Mental Health

The Counseling Center at East Texas A&M, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit **www.etamu.edu/counsel**

Mental Health and Well-Being

The university aims to provide students with essential knowledge and tools to understand and support mental health. As part of our commitment to your well-being, we offer access to Telus Health, a service available 24/7/365 via chat, phone, or webinar. Scan the QR code to download the app and explore the resources available to you for guidance and support whenever you need it.

http://telusproduction.com/app/5108.html

AI use policy [Draft 2, May 25, 2023]

East Texas A&M University acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty
13.99.99.R0.10 Graduate Student Academic Dishonesty

Department or Accrediting Agency Required Content

COURSE OUTLINE / CALENDAR

The *syllabus/schedule are subject to change.*

COURSE OUTLINE / CALENDAR

Course Schedule: class begins August 25 and ends December 12, 2025

Week of	Week #	Chapter	Content	Weekly grades
8/13*	0		Empirical science, Measurement Intro to Biology, Organelle review	Lab 1, Quiz 1
8/18	0	Ch 1		
8/25	1	Ch. 2	Chemistry & Water	Quiz 2, Assign 1
9/2*	2	Ch. 3	Organic Molecules	Quiz 3, Assign 2
9/8	3	Ch 4	Cell Structure & Function	Exam 1, Lab 2
9/15	4	Ch. 5	Membrane Structure & function	Quiz 4, Assign 3
9/24*	5	Ch. 6	Metabolism	Quiz 5, Assign 4
9/29	6	Ch. 7	Cellular Respiration	Quiz 6, Assign 5
10/6	7	Ch 8	Photosynthesis	Exam 2, Lab 3
10/13	8		FALL BREAK	Assign 6
10/21	9	Ch 10 & 11	Eukaryotic Cell cycle, Meiosis	Quiz 7, Assign 7
10/27	10	Ch 12	Mendel's Genetics	Quiz 8, Assign 8
11/3	11	Ch 13	Modern Inheritance	Quiz 9, Assign 9
11/10	12	Ch 14	DNA & RNA	Exam 3, Lab 4
11/17	13	Ch 15	Protein Synthesis	Quiz 10, Assign 10
~~11/24~~	14	Ch 16	Gene Expression	Quiz 11, Assign 11
12/1	15	Ch 17	Gene Technology	Exam 4, Lab 5
12/8	16		Comprehensive Final 12/11	Final
12/15				Applications

Last day to drop with a "W" - October 30, 2025

The *syllabus/schedule are subject to change.*