

SYLLABUS

BIOL 1025 General Biology 1025 FALL 2018

Instructor: E. Gloria C. Regisford, Ph.D.
Section # and CRN: P01 CRN: 11625 and P81 CRN: 11626
Office Location: Elmer E. O'Banion Science Building Room 430G
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Office Hours: TR: 11:30 am – 2:30 pm or by appointment
Mode of Instruction: Face-to Face

Course Location: O'Banion Science – Room 406
Class Days & Times: MWF Lecture: 1:00 pm – 1:50 pm and MW Lab 2:00 pm – 3:50 pm

Catalog Description: General Biology 1025, (3-4) Credit 5 semester hours. Structure and function of living organism systems. Ecological relationships, natural selection, evolution and human ecology.

Prerequisites: TSIA Reading College Ready
Co-requisites:

Required Texts: Campbell Biology, 11th Edition, by Urry, Cain, Wasserman, Minorsky and Reese
ISBN –10:0-134-09341-0 or 13:978-0-134-09341-3

Student Learning Outcomes:

	Upon successful completion of this course, students will be able to:	Program Learning Outcome # Alignment	Core Curriculum Outcome Alignment
1	Demonstrate an understanding of the basic principles of heredity	1, 3	Discipline Specific Knowledge
2	Demonstrate by drawings and understanding of transcription, translation and gene expression	1, 3 and 4	Discipline Specific Knowledge
3	Demonstrate knowledge of DNA technologies and genetic engineering	1, 3 and 4	Integration of Broad Knowledge
4	Demonstrate knowledge of genetic principles	1, 3 and 4	Discipline Specific Knowledge
5	Demonstrate knowledge of viruses and prokaryotes	3	Discipline Specific Knowledge
6	Demonstrate critical thinking skills and scientific problem solving skills to make informed decisions.	1, 5	Critical Thinking, Problem Solving
7	Demonstrate laboratory investigations using safe, environmentally appropriate and ethical practices	5	Ethical Decision Making and Problem Solving
8	Compose an oral scientific presentation using the scientific method	5	Communication, Globalization and Cultural Diversity

Major Course Requirements

Method of Determining Final Course Grade

Course Grade Requirement	Value	Total
1) Major Exams (3)	60%	600
2) Final Exam	20%	200
3) Quizzes and Assignments	Extra Credit	
4) Laboratory Reports/Exams	20%	200
Total:	100%	1000pts

Grading Criteria and Conversion

- A = 100-90pts.
- B = 89-80pts
- C = 79-70pts
- D = 69-60pts
- F = 59-00pts

Detailed Description of Major Assignments:

Assignment Title or Grade Requirement

Requirement	Description
Chapters 12 and 13	Exam 1
Chapters 14 and 15	Exam 2
Chapters 16 and 17	Exam 3
Chapters 18, 19, 20 and 21	Exam 4 (Final Exam)

Course Procedures or Additional Instructor Policies

Taskstream

Taskstream is a tool that Prairie View A&M University uses for assessment purposes. One of your assignments may be considered an "artifact," an item of coursework that serves as evidence that course objectives are met. More information will be provided during the semester, but for general information, you can visit Taskstream via the link in eCourses.

Semester Calendar (Tentative)

Week One: (08/27/18)

Topic Description

Readings:

Chapter 12: The Cell Cycle

The Cell Cycle and Mitosis

Lab Safety Rules and Regulations,

Lab Exercise: Mitosis

Week Two: (09/03/18)

Topic Description

Readings:

Chapter 12: The Cell Cycle

The Cell Cycle and Mitosis

Lab Exercise: Mitosis

Week Three: (09/10/18)

Topic Description

Readings:

Chapter 13: Meiosis and Sexual Life Cycles

Sexual Life Cycles

Lab Exercise: Sexual Life Cycles and Meiosis

Week Four: (09/17/18)

Topic Description

Readings:

Chapter 13: Meiosis and Sexual Life Cycles

Meiosis

Lecture Exam 1 (Chapters 12 & 13)

Lab Exercise: Sexual Life Cycles and Meiosis

Week Five: (09/24/18)

Topic Description

Readings:

Chapter 14: Mendel and The Gene Idea

Mendel's Experiments; Monohybrid and Dihybrid Crosses

Lab Exercise: Genetic Crosses

Week Six: (10/01/18)

Topic Description

Readings:

Chapter 14: Mendel and The Gene Idea

Mendelian Patterns of Inheritance

Genetic Testing and Counseling

Lab Exercise: Genetic Crosses

Week Seven: (10/08/18)

Topic Description

Readings:

Chapter 15: Chromosomal Basis of Inheritance

Morgan's Experiments,

Sex Linked Genes

Lab Exercise: Pedigree Exercises

Week Eight: (10/15/18)

Topic Description

Readings:

Chapter 15: Chromosomal Basis of Inheritance

Alterations of Chromosome Number and Structure

Exceptions to Mendelian Inheritance and Human Disorders

Lecture Exam 2 (Chapters 14 & 15)

Lab Exercise: Pedigree Exercises

Week Nine: (10/22/18)

Topic Description
Readings

Chapter 16: Molecular Basis of Inheritance

DNA is the Genetic Material
DNA Replication and Repair, Structure of Chromosomes
Lab Exercise: DNA Extraction

Week Ten: (10/29/18)

Topic Description
Readings

Chapter 17: Gene Expression: From Gene to Protein

Transcription, Translation and Mutations
Lab Exercise: DNA to Proteins

Week Eleven (11/05/18)

Topic Description
Readings

Chapter 18: Gene Expression: From Gene to Protein

Operons
Regulation of Eukaryotic Gene Expression
Lecture Exam 3 (Chapters 16 & 17)
Lab Exercise: Restriction Enzymes and Gel Electrophoresis

Week Twelve (11/12/18)

Topic Description
Readings

Chapter 18: Regulation of Gene Expression and **Chapter 19:** Viruses

Noncoding RNAs; Genetic Changes Leading to Cancer
Structure of Viruses; Replication of Viruses
Viruses and Prions as Pathogens in Plants and Animals
Lab Exercise: HIV Replication

Week Thirteen (11/19/18)

Topic Description
Readings

Chapter 20: DNA Tools and Biotechnology

DNA Sequencing and DNA Cloning
Analyzing and Determining Gene Expression
Cloned Organisms and Stem Cells
Practical Applications of DNA-Based Technology
Lab Exercise: PCR

Week Fourteen (11/26/18)

Topic Description
Readings

Chapter 21: Genomes and Their Evolution

The Human Genome Project
Bioinformatics, Genome Size and Genome Evolution
Noncoding DNA and Multigene families
Lab Exercise: Bioinformatics Databases

Week Fifteen (12/04/18)

Topic Description
Readings

Review

[Group PowerPoint Presentation of “Gene Mutation\(s\), Inheritance and Disease”](#)

Week Sixteen:

Topic Description

Final Exam Week

Lecture Exam 4 (Chapters 18, 19, 20 & 21)

Student Support and Success

John B. Coleman Library

The library and its partners have as their mission "to provide resources and instructional material in support of the evolving curriculum, as a partner in Prairie View A&M University's mission of teaching, research, and service" and to support the University's core values of "access and quality, diversity, leadership, relevance, and social responsibility" through emphasis on ten key areas of service. It maintains library collections and access both on campus, online, and through local agreements to further the educational goals of students and faculty.

Center for Academic Support

The Center for Academic Support (CAS) offers Tutoring via peer tutoring. The services include workshops (i.e., Save My Semester, Recalculate Your Route), seminars (i.e., Tools You Can Use: TI-84), group review sessions (i.e., College Algebra Topic Reviews, GRE Preparation), group study opportunities (i.e., TSIA, HESI, Study Break, Exam Cram), and test-taking strategies (How to take Notes, Study Buddy, 5 Day Study Guide). The Tutoring Center is a nationally certified tutoring program through the National Tutoring Association. The peer tutors are trained and certified by the coordinator each semester. Location: J.B. Coleman Library

COMPASS

The Center for the Oversight and Management of Personalized Academic Student Success (COMPASS) is designed to help Prairie View students in their second year and beyond navigate towards graduation by providing the following services: Academic Advisement, Targeted Tutorials for Personalized Learning, Campus-Wide Referrals, and Academic & Social Workshops. Location: J.B. Coleman Library.

Writing Center

The Writing Center provides student consultants on all aspects of the writing process and a variety of writing assignments. Writing Center consultations assist students in such areas as prewriting, brainstorming, audience awareness, organization, research, and citation. Location: Hilliard Hall 121

University Rules and Procedures

Disability statement (See Student Handbook):

Students with disabilities, including learning disabilities, who wish to request accommodations in class should register with the Services for Students with Disabilities (SSD) early in the semester so that appropriate arrangements may be made. In accordance with federal laws, a student requesting special accommodations must provide documentation of their disability to the SSD coordinator.

Academic misconduct (See Student Handbook):

You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Handbook, especially the section on academic misconduct. Students who engage in academic misconduct are subject to university disciplinary procedures.

Forms of academic dishonesty:

1. Cheating: deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not mastered; giving or receiving aid unauthorized by the instructor on assignments or examinations.
2. Academic misconduct: tampering with grades or taking part in obtaining or distributing any part of a scheduled test.
3. Fabrication: use of invented information or falsified research.
4. Plagiarism: unacknowledged quotation and/or paraphrase of someone else's words, ideas, or data as one's own in work submitted for credit. Failure to identify information or essays from the Internet and submitting them as one's own work also constitutes plagiarism.

Nonacademic misconduct (See Student Handbook)

The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor's ability to conduct the class, (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Dean of Students under nonacademic procedures.

Sexual misconduct (See Student Handbook):

Sexual harassment of students and employers at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action.

Attendance Policy

Prairie View A&M University requires regular class attendance. Excessive absences will result in lowered grades. Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or in assignment of a grade of "F". Absences are accumulated beginning with the first day of class.

Student Academic Appeals Process

Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the Undergraduate Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.

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TECHNICAL CONSIDERATIONS

Minimum Recommended Hardware and Software:

- Intel PC or Laptop with Windows 7; Mac with OS X; Smartphone or iPad/Tablet with Wi-Fi
- High speed Internet access
- 8 GB Memory
- Hard drive with 320 GB storage space
- 15" monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Most current version of Google Chrome, Safari, Internet Explorer or Firefox

Note: Be sure to enable Java & pop-ups

Participants should have a basic proficiency of the following computer skills:

- Sending and receiving email
- A working knowledge of the Internet
- Proficiency in Microsoft Word (or a program convertible to Word)
- Proficiency in the Acrobat PDF Reader
- Basic knowledge of Windows or Mac O.S.

Netiquette (online etiquette):

Students are expected to participate in all discussions and virtual classroom chats as directed. Students are to be respectful and courteous to others on discussions boards. Foul or abusive language will not be tolerated.

Technical Support:

Students should go to <https://mypassword.pvamu.edu/> if they have password issues. The page will provide instructions for resetting passwords and contact information if login issues persist. For other technical questions regarding eCourses, call the Office of Distance Learning at 936-261-3283

Communication Expectations and Standards:

Emails or discussion postings will receive a response from the instructor, usually in less than 48 hours. Urgent emails should be marked as such. Check regularly for responses.

Discussion Requirement:

Online courses often require minimal to no face-to-face meetings. However, conversations about the readings, lectures, materials, and other aspects of the course can take place in a seminar fashion. This will be accomplished by the use of the discussion board. The exact use of discussion will be determined by the instructor.

It is strongly suggested that students type their discussion postings in a word processing application and save it to their PC or a removable drive before posting to the discussion board. This is important for two reasons: 1) If for some reason your discussion responses are lost in your online course, you will have another copy; 2) Grammatical errors can be greatly minimized by the use of the spell-and-grammar check functions in word processing applications. Once the post(s) have been typed and corrected in the word processing application, it should be copied and pasted to the discussion board.

Aug 23 - Aug 24 Thursday through Friday	Regular Registration
Aug 27 Monday	Tuition payment deadline is 5:00 p.m. for all students who registered for the fall semester
Aug 27 - Aug 29 Monday through Wednesday	Late registration for the fall semester for all students who have not yet registered. To complete registration, students must pay by 5:00 p.m. on Wednesday, September 19
Aug 27 - Aug 31 Monday through Friday	Add/Drop for all students for the fall semester. Tuition payment for all students who add/drop for fall must pay by 5:00 p.m. on Wednesday, September 19
Aug 27 Monday	First Class Day
Sep 03 Monday	Labor Day Holiday (University closed)
Sep 04 Tuesday	Class resumes
Sep 12 Wednesday	12th class day (Census Date)
Sep 12 Wednesday	Last day to withdraw from course(s) without academic record
Sep 13 - Nov 02 Thursday through Friday	Withdrawal from course(s) with academic record ("W")
Sep 19 Wednesday	Tuition payment deadline is 5:00 p.m. for all students who late registered and add/drop for fall semester

Sep 24 Monday	20th class day
Sep 25 - Dec 04 Tuesday through Tuesday	Submit application for Tuition Rebate for fall graduation undergraduate candidates
Oct 18 - Oct 20 Thursday through Saturday	Mid-semester examination
Oct 23 Tuesday	Mid-semester grades due by 11:59 p.m.
Oct 31 Wednesday	Last day to apply for fall graduation (ceremony participation)
Nov 01 - Dec 04 Thursday through Tuesday	Apply for degree conferral only for fall graduation (no ceremony participation or name listed in program)
Nov 02 Friday	Last day for withdrawal from course(s) with academic record ("W")
Nov 05 Monday	60% of term
Nov 12 - Nov 16 Monday through Friday	Priority registration for continuing students for spring semester. https://www.pvamu.edu/registrar/priority-registration-schedule/
Nov 19 - Jan 11, 2019 Monday through Friday	Pre-registration for all students for the spring semester
Nov 22 - Nov 24 Thursday through Saturday	Thanksgiving Holidays (University closed)

Nov 26 Monday	Class resumes
Dec 03 - Dec 04 Monday through Tuesday	Course Review Days (classes must convene and instructors will prepare students for final exams)
Dec 04 Tuesday	Last day to apply for degree conferral only for fall graduation (no ceremony participation or name listed in program)
Dec 04 Tuesday	Last Class Day
Dec 04 Tuesday	Last day to submit application for Tuition Rebate for fall graduation undergraduate candidates
Dec 04 Tuesday	Last day to withdraw from the University
Dec 05 - Dec 11 Wednesday through Tuesday	Final Examinations