



RANGER COLLEGE

COURSE SYLLABUS

General Biology II

Biol 1407

4 credit hours

FALL 2021

INSTRUCTOR:
Debbie Kemp

INSTRUCTOR: Debbie Kemp
EMAIL: dkemp@rangercollege.edu (best method of contact)
OFFICE: Brown County Campus – no office
HOURS: By appointment online

I. Texas Core Curriculum Statement of Purpose

Through the Texas Core Curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning.

II. Course Description

The diversity and classification of life will be studied, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals.

III. Required Background or Prerequisite

Passing score on THEA Reading section or equivalent alternate test is recommended.

IV. Required Textbook and Course Materials

YOU WILL HAVE TO PAY FOR THE CONNECT ACCESS & EBOOK IF YOU ARE A DUAL CREDIT STUDENT.

YOUR TEXTBOOK IS INCLUDED IN IncludEd!!! You will not receive a hard copy of the text, but will have the option to order a loose-leaf copy once you have registered for the McGraw-Hill Connect website.

Connect Access Card for Biology: Concepts and Investigations

Hoefnagels 5e: Connect AC (2 semester) – ISBN 9781264354085

V. Course Purpose

Life Science courses focus on describing, explaining and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

VI. Learning Outcomes

1. Describe the process of science as a way to understand the natural world.
2. Describe the cell as the basic unit of life.
3. Describe the major metabolic pathways in cellular respiration and photosynthesis, and the role of enzymes and high-energy molecules, such as ATP, in these processes.
4. Describe the diversity and characteristics of Prokaryotes, Protists, Fungi, Plants and Animals.
5. Describe the interactions of populations and communities.

VII. Core Objectives

This course meets the following of the six Core Objectives established by Texas:

- ☒ **Critical Thinking Skills (CT)** – Creative thinking, innovation, inquiry, and analysis; evaluation and synthesis of information
- ☒ **Communication Skills (COM)** – effective development, interpretation and expression of ideas through written, oral, and visual communication
- ☒ **Empirical and Quantitative Skills (EQS)** – The manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- ☒ **Teamwork (TW)** – The ability to consider different points of view and to work effectively with others to support a shared purpose or goal
- ☐ **Social Responsibility (SR)** – Intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities
- ☐ **Personal Responsibility (PR)** – The ability to connect choices, actions, and consequences to ethical decision-making

VIII. Methods of Instruction

Reading/videos/notes

Online practice, homework

LearnSmart with Connect Lab Access

Labs in which major biological principles will be demonstrated by examination of specimens, conducting experiments and viewing videos virtually.

IX. Methods of Assessment

Exams will consist of multiple choice and short answer questions and will cover all material discussed in class or in reading assignments. Each question will be graded as correct or incorrect in accordance with information in the text, lectures and readings. Exam grades will be taken as the points correct.

There will be NO MAKEUP EXAMS.

The course grade will be computed as follows:

LEARN SMART	20%
EXAMS/Projects	30%
LAB	25%
<u>FINAL EXAM</u>	<u>25%</u>

Letter grades will be assigned as follows:

Grading scale: A = 90-100% B = 80-89 C = 70-79 D = 60-69 F = Below 60

X. Course/Classroom Policies

- 1) THE FINAL EXAM MUST BE PROCTORED!!!! This means that you will either need to come to one of the Ranger College campuses to take the exam OR use the online proctoring website **ProctorU**. You can find a link to **ProctorU** on blackboard.
- 2) It is important that you understand there is both a LECTURE COMPONENT (75%) and a LAB COMPONENT (25%), however, your grade will be ONE grade as a combination of both. You will need to be very diligent in staying on top of both parts. Please check the calendar weekly to keep up with assignments and their due dates.
- 3) **YOUR TEXTBOOK IS INCLUDED IN IncludEd!!!** You MUST purchase the electronic textbook so that you will have access to the CONNECT site (with LABS), if you have trouble connecting to this please email me. Please make certain that you are purchasing the correct version {Connect Access Card for Biology: Concepts and Investigations Hoefnagels 5e: Connect AC (2 semester) – ISBN **9781264354085**

Instructions for connecting are ON CANVAS!

- Assignments and Labs are assigned and are due week by week.
- Videos (YouTube) are provided in some chapters for added understanding, these are optional
- Some weeks will have more labs assigned than others. Make sure you check the assignment schedule early each week.
- Exams are scheduled according to weekly assignments.
- Make sure that you check the schedule for exams week by week.
- Late exams will be completed for a reduced grade.
- Exams will be given on Sunday evenings between 6-10pm. Exams may not be taken early.

**XI. Course Outline/Schedule
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Course Calendar

YOUR TEXTBOOK IS INCLUDED IN IncludEd!!!

Connect with LearnSmart Labs Access Card for Biology: Concepts and Investigations

ISBN: 9781259870002

Hoefnagels: Connect and LearnSmart Labs Access Card for Biology: Concepts and Investigations

XII. Non-Discrimination Statement

Admissions, employment, and program policies of Ranger College are nondiscriminatory in regard to race, creed, color, sex, age, disability, and national origin.

XIII. ADA Statement

Ranger College provides a variety of services for students with learning and/or physical disabilities. Students are responsible for making initial contact with the Ranger College Counselor, Gabe Lewis (glewis@rangercollege.edu). It is advisable to make this contact before or immediately after the semester begins.

Tentative Schedule

Week 1			
		Get to Know Connect	Exam
		Virtual Lab Tutorial	Lab
		Lab Safety-Hand Washing	Lab
		Lab Safety-Personal Safety	Lab
		Smart Book Ch 19 - Plants	
		Plants	Video
		Plant and Animal Cells	Lab
		Metric Measurement-Temp	Lab
		Project: Biodiversity	
		Metric Measurement-Vol	Lab
Week 2			
		Smart Book Ch. 20- Fungi	

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		Metric Measure- Length	Lab
		Metric Measure - Weight	Lab
		Fungi	Video
		Review Unit #1 Ch. 19 - 20	Review
		Unit #1 Exam Ch. 19-20	Exam
Week 3			
		Cellular Respiration-Energy	Lab
		Cellular Respiration-Yeast	Lab
		Energy	Video
		ATP	Video
		Osmosis	Video
		Smart Book Ch. 4 Energy	
		Review Unit #2 Ch. 4	Review
		Unit #2 Exam Ch. 4	Exam
Week 4			
		Photosynthesis-Carbon Dioxide	Lab
		Photosynthesis-Light	Lab
		Photosynthesis-Pigments	Lab
		Photosynthesis	Video
		SmartBook Ch. 5 Photosynthesis	
		Review Unit #3 Ch. 5	Review
		Unit #3 Exam Ch. 5	Exam
Week 5			
		How Enzymes Work-Conc.	Lab
		How Enzymes Work - pH	Lab
		How Enzymes Work -Temp	Lab
		How Enzymes Work - Activity	Lab
		Enzymes	Video
		SmartBook Ch. #6 Resp/Ferm	
		Review Unit#4 Ch.6	Review
		Unit #4 Exam	Exam
Week 6			
		SmartBook Ch. 17 Bacteria	

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		Bacteria	Video
		Bacteria	Lab
		Natural Selection-Antibiotic Resist	Lab
		Natural Selection-Insects	Lab
Week 7			
		SmartBook Ch. 18 Protists	
		Protists	Video
		Protists: Euglena	Lab
		Review Unit #5 Ch. 17-18	Review
		Unit #5 Exam Ch. 17-18	Exam
Week 8			
		Smart Book Ch. 21 Animals	
		Animals	Video
Week 9			
		Smart Book Ch. 37 Population	
		Transformation of Bacteria	Lab
Week 10			
		Smart Book Ch. 38 Ecosystems	
		Exam Review Ch. 21, 37,38	Review
		Exam Ch 21,37,38	Exam
Week 11			
		SmartBook Ch. 36 Animal Behavior	
		Review Chapter 36	Review
		Video: Animal Behavior	Video
		Video: Animal Behavior II	Video
Week 12			
		SmartBook Ch.39 Biomes	
		Chapter 39 Review	Review
		Biomes	Video
		Biomes Assignment	Assignment
Week 13			
		Smart Book 40	
		Chapter 40 Review	Review

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		Biodiversity Assignment	Assignment
		EXAM: Chapters 36, 39, 40	

Project: Biodiversity

Final Exam TBA
