Syllabus for BIO 101—Principles of Biology Lecture Online 3.0 Credit Hours Summer 2014

I. COURSE DESCRIPTION

A study of the main principles of life common to both plants and animals, including scientific methods, levels of organization, cell structure and function, photosynthesis, respiration, molecular and Mendelian genetics, reproduction, development, evolution, classification, behavior and ecology and their appropriate applications for solving current biological problems. (Open to biology majors by permission. BIO 101 and BIO 111 may not both be taken for credit.) Corequisite: BIO 101 Lab.

II. COURSE GOALS

In adapting this course to meet the needs of non-majors more adequately, emphasis is made on the understanding and appropriate application of basic biological principles to many problems of biological science in society. We believe that even this brief involvement with the philosophy, methods, findings and concepts of biology, and its interrelations with other areas of life will make a noticeable contribution toward enabling the student to becoming a scientifically literate citizen who will function more effectively in solving science-related problems.

III. STUDENT LEARNING OUTCOMES FOR THIS COURSE

Objectives

As a result of successfully completing this course, the student will be able to do the following:

- A. Converse using terms related to the principles of life common to both plant and animal science.
- B. Use the scientific method in problem solving with a Christian perspective e.g., world hunger, population, and environmental stewardship.
- C. Recall terms necessary to comprehend and discuss the biological concepts presented in the course as evidenced by being able to use the terms correctly.
- D. Exhibit a mature, responsible attitude toward your work, as part of the training inherent in the discipline of science and development of consistent Christian character by being prepared, present, and punctual.
- E. Read science periodicals such as **Science**, **Scientific American**, and **Science News** with interest and understanding.

IV. TEXTBOOKS AND OTHER LEARNING RESOURCES

Required Textbook McGraw Hill custom made book. Budavich, Rachel. Principles of Biology BIO 101. Biology. Oral Roberts University. ISBN-9781121738485 with CONNECT

V. POLICIES AND PROCEDURES

A. University Policies and Procedures

- 1. Attendance at each class or laboratory is mandatory at Oral Roberts University. Excessive absences can reduce a student's grade or deny credit for the course.
- 2. Students taking a late exam because of an unauthorized absence are charged a late exam fee.
- 3. Students and faculty at Oral Roberts University must adhere to all laws addressing the ethical use of others' materials, whether it is in the form of print, electronic, video, multimedia, or computer software. Plagiarism and other forms of cheating involve both lying and stealing and are violations of ORU's Honor Code: "I will not cheat or plagiarize; I will do my own academic work and will not inappropriately collaborate with other students on assignments." Plagiarism is usually defined as copying someone else's ideas, words, or sentence structure and submitting them as one's own. Other forms of academic dishonesty include (but are not limited to) the following:
 - a. Submitting another's work as one's own or colluding with someone else and submitting that work as though it were his or hers;
 - b. Failing to meet group assignment or project requirements while claiming to have done so;
 - c. Failing to cite sources used in a paper;
 - d. Creating results for experiments, observations, interviews, or projects that were not done;
 - e. Receiving or giving unauthorized help on assignments.

By submitting an assignment in any form, the student gives permission for the assignment to be checked for plagiarism, either by submitting the work for electronic verification or by other means. Penalties for any of the above infractions may result in disciplinary action including failing the assignment or failing the course or expulsion from the University, as determined by department and University guidelines.

- 4. Final exams cannot be given before their scheduled times. Students need to check the final exam schedule before planning return flights or other events at the end of the semester.
- 5. Students are to be in compliance with University, school, and departmental policies regarding the Whole Person Assessment requirements. Students should consult the Whole Person Assessment handbooks for requirements regarding general education and the students' majors.
 - a. The penalty for not submitting electronically or for incorrectly submitting an artifact is a zero for that assignment.
 - b. By submitting an assignment, the student gives permission for the assignment to be assessed electronically.

B. Course Procedures

1.

Evaluation	
Exams	40%
Discussions, class participation	20%
Quizzes, homework, Learnsmart	40%
TOTAL	100

2. The course letter grade is assigned as follows:

Letter Grade	Percent
А	90-100
В	80-89
С	70-79
D	60-69
F	59 and below

Whole Person Assessment Requirements The student will read a current article on a contemporary biology issue and prepare a written response to include a summary of main points, analysis of strengths and weaknesses of the various positions, and a discussion of the student's position on this issue.

VI. COURSE CALENDAR

3.

WEEK TOPICS

1	CH 1: The Science of Biology
	Introduction to Bioethics
2	CH3: MOLECULES OF LIFE
	CH 8: Digestive system and Nutrition
3	CH 4: CELLS
4	CH 18: PATTERNS OF CHROMOSOME INHERITANCE
	CH 19: Cancer
5	CH 20: PATTERNS OF GENETIC INHERITANCE
	CH 21:DNA Biology and Technology
6	CH 16: REPRODUCTIVE SYSTEM
	CH 17: HUMAN DEVELOPMENT AND AGING
	REPRODUCTIVE TECHNOLOGIES and CLONING
7	GLOBAL HEALTH AND INFECTIOUS DISEASES
	CH 7: THE LYMPHATIC AND IMMUNE SYSTEMS

Course Inventory for ORU's Student Learning Outcomes

Principles of Biology Lecture – BIO 101 Summer 2014

This course contributes to the ORU student learning outcomes as indicated below: Significant Contribution – Addresses the outcome directly and includes targeted assessment. Moderate Contribution - Addresses the outcome directly or indirectly and includes some assessment. Minimal Contribution – Addresses the outcome indirectly and includes little or no assessment. No Contribution – Does not address the outcome.

The Student Learning Glossary at http://ir.oru.edu/doc/glossary.pdf defines each outcome and each of the proficiencies/capacities.

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	OUTCOMES & Proficiencies/Capacities	Significant Contribution	Moderate Contribution	Minimal Contribution	No Contribution
1	Outcome #1 – Spiritually Alive				
	Proficiencies/Capacities				
1A	Biblical knowledge			X	
1B	Sensitivity to the Holy Spirit			X	
1C	Evangelistic capability			X	
1D	Ethical behavior		X		
2	Outcome #2 – Intellectually Alert				
	Proficiencies/Capacities				
2A	Critical thinking	X			
2B	Information literacy	X			
2C	Global & historical perspectives	X			
2D	Aesthetic appreciation				X
2E	Intellectual creativity	Х			

3	Outcome #3 – Physically Disciplined		
	Proficiencies/Capacities		
3A	Healthy lifestyle		Х
3B	Physically disciplined lifestyle		Х

4	Outcome #4 – Socially Adept				-
	Proficiencies/Capacities				
4A	Communication skills	Х			
4B	Interpersonal skills		Х		
4C	Appreciation of cultural & linguistic differences				Х
4D	Responsible citizenship		Х		
4E	Leadership capacity			Х	