



Course Syllabus

LBIO 101 OL Principles of Biology Lecture 3 Credit hours

I. COURSE DESCRIPTION

This course is 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.

Corequisite: BIO 101L Principles of Biology Laboratory

II. ACADEMIC MISSION

Oral Roberts University's academic mission is to transform students by the power of the Holy Spirit into whole, competent servant-leaders through liberal arts and professional education that is fully Christian. Within a Spirit-filled healing community, administration, faculty, and staff love and serve students by helping them grow in knowledge, skills, wisdom, character, and spirit.

Student transformation is measured through the evaluation of student expression of University learning outcomes as demonstrated through accompanying proficiencies and capacities.

<i>Spiritually alive</i>	Biblical Literacy; Spiritual Formation.
<i>Intellectually alert</i>	Critical thinking, Creativity, and Aesthetic Appreciation; Global and Historical Perspectives; Information Literacy; Knowledge of the Physical and Natural World
<i>Physically disciplined</i>	Healthy Lifestyle; Physically Disciplined Lifestyle
<i>Socially adept</i>	Ethical Reasoning and Behavior; Intercultural Knowledge and Engagement; Written and Oral Communication; Leadership Capacity.
<i>Professionally competent</i>	Discipline-specific proficiencies listed under Program Outcomes.

The last page of this syllabus, "COURSE INVENTORY for ORU's Course Objectives," indicates how this course supports ORU's academic mission and ORU's whole-person approach to learning outcomes.

III. PROGRAM OUTCOMES

This course is offered as a General Education requirement by the Biology Department. It is aligned with the Intellectually Alert outcome of ORU's Whole Person Assessment model as shown in the Course Inventory (last page of this syllabus). Specifically, this course addresses the following:

2B Global and Historical Perspectives - The capacity to recognize and appreciate various viewpoints in an increasingly interdependent international community, and to understand the relationships between past events, current situations, and emerging futures

2C Information Literacy - The ability to identify, find, and evaluate information and to use it ethically for creating and communicating new knowledge

2D Knowledge of the Physical and Natural World – The understanding of the principles and properties of creation, and engagement with contemporary and enduring questions, through the study of science and mathematics

IV. COURSE GOALS

This course is designed to adequately meet the needs of non-majors and emphasizes 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 becoming a scientifically literate citizen who will function more effectively in solving science-related problems.

V. COURSE OBJECTIVES

After successfully completing this course, you should be able to:

1. An ability to identify the process of science, solve problems using the scientific method, and distinguish between science and pseudoscience.
2. An ability to recognize the unity and diversity of living things and identify the creativity and functional design of the living creation's ability to adapt to the changing environment.
3. An ability to identify the specific mechanisms of heredity and reproduction, and how that relates to the inheritance of traits and some genetic disorders.
4. An ability to recognize the dynamic relationship between living organisms and their environment.
5. An ability to apply aspects of life science, informed by one's Christian worldview, to engage current bioethical issues in society (e.g. climate change, pollution, genetic manipulation and genetic testing, etc.).
6. An ability to analyze science news with appreciation and understanding, and critique whether sound scientific and ethical research was used in the process.

VI. TEXTBOOK AND OTHER LEARNING RESOURCES

Before you purchase your required textbook(s), click on the ORU Bookstore link to verify whether digital texts are provided as part of your Follett ACCESS course fee. <http://www.bkstr.com/oralrobertsstore/home>

Required Materials

Textbook(s):

Fowler, Samantha, et al. *Concepts of Biology*. OpenStax, Rice University, 2016. [Print ISBN: 9781938168116; Digital ISBN: 9781947172036]

**Additional information available in the D2L course.*

Other required materials:

Planet Earth II, directed by David Attenborough (Warner Home Video, 2017), DVD. [UPC: 883929573653; EAN: 0883929573653].

Optional Materials

Textbooks:

None

VII. POLICIES AND PROCEDURES

A. University Policies and Procedures

1. **Plagiarism:** The ORU Catalog explicitly addresses the issue of plagiarism. Make sure you know [ORU's policy on plagiarism](#) and [what is considered plagiarism](#).
2. **Privacy:** By law, students are entitled to privacy regarding their records. The Family Educational Rights and Privacy Act of 1974 (FERPA), as amended and available in the [ORU University Catalog](#), sets forth requirements designed to protect the privacy of student education records. The law governs access to records maintained by educational institutions and the release of information from those records.
3. **Whole Person Assessment Requirements:**
 - a. Specify which, if any, Whole Person Assessment requirements there are for this course.
Project 7: Contemporary Biology Issue -- Summary and Analysis
 - b. Artifacts not submitted electronically or incorrectly submitted receive a zero for that assignment.

B. School and/or Department Policies and Procedures

1. Class Assignments

- a. Students need to have the appropriate textbooks, course materials, and other supplies as designated by the professor.
- b. Professors may refuse to accept an assignment if it has inappropriate content, does not meet the assignment's criteria (e.g., not typed, incorrectly documented), is incomplete, is suspected of plagiarism, or is turned in too late.

2. Late Work

- a. The student is responsible for obtaining class assignments and materials, and all work is expected to be completed as scheduled. The professor may not accept late work, or it may result in a lower grade. Computer or Internet malfunctions do not constitute an excuse for late work; students should have their work prepared in time to ensure that they can get it completed, edited, and proofread prior to the instructor's due date. These responsibilities assist the student in professional development.
- b. Generally, assignments missed from a serious sickness or family crises can be made up and the instructor should be notified as soon as possible to reach an agreement on due dates and possible penalties. Each instructor has his or her own late-work policy. Instructors use their own judgment in accepting late work.

3. Incompletes

On rare occasions, the grade of "I" may be given for work that is incomplete at the time grades are given. It is given only after the instructor and the department chair or college dean approve a petition submitted by the student that his or her work is incomplete for good cause. Good cause typically consists of a catastrophic event in which the student is prevented from completing the course requirements. It is the responsibility of the student to initiate the petition through <http://petitions.oru.edu>, make up any incomplete work, and ask the instructor to submit a grade change to the registrar. If the work is not completed by the end of the subsequent session, the

incomplete will automatically convert to an "F." For graduating seniors, the degree will be awarded in the term that the student completes his or her course work, not the final term of enrollment.

4. Citations

Textbook(s) and materials for the course are listed using standard [citation style](#) (APA, MLA, Chicago, Turabian, etc.). Since other styles may be used in disciplines other than the one used in this course or school, the [ORU Citing and Documenting Sources](#) pages offer a collection of styles students may choose from. This course asks that students be consistent in whatever style they use throughout the course.

C. Online Programs Policies and Procedures

1. **Communicating with your Instructor:** All email communication between students and faculty will be through their ORU.edu emails.
2. **Learning Community:** Online learning community is established through active participation in the threaded weekly discussions. The mutual exchange of ideas, information, and experiences is an essential part of the learning process, and students are encouraged to use the discussion forum as virtual classroom platform.
3. **ADA and Students with Disabilities:**
 - Click here (<http://www.brightspace.com/about/accessibility/>) to view Desire2Learn's "Accessibility Resources for Students with Disabilities."
 - Students requiring Disability Services from ORU, please click here: <https://goo.gl/QGoK4x>
 - Desire2Learn (D2L) Accessibility Guidelines and Checklist: <https://goo.gl/Ck4RwY>
 - D2L Accessibility Policy: <https://www.d2l.com/accessibility/>
4. **Useful Links for Online Students:**
 - [Student Learning Glossary](#)
 - Library: <http://library.oru.edu>.
 - D2L Helpdesk: d2lhelp@oru.edu
 - I.T. Student Helpdesk: studenthelpdesk@oru.edu
 - [Netiquette and Online Discussions](#): <https://goo.gl/f744AY>
 - Contact the University: please [fill out this online form](#). Please first contact your instructor for assistance with any matter specific to the course.

D. Course Policies and Procedures

1. **Evaluation Procedures:** The final grade will be based on forum discussions, paper, quizzes, and exams. The weight of each item is included in the Course Calendar. Extra credit items are not offered in this course.

Grade Weight	Category
40%	Forums
40%	Projects
20%	Quizzes
100%	

2. **Grading Scale:** A=90-100% B=80-89% C=70-79% D=60-69% F=59% and below.
3. **Other Policies and/or Procedures:** None

VIII. COURSE CALENDAR

The Course Calendar shows the specific learning activities and assessments for this course, along with their respective grade weights. The far-right column lists the Course Objectives (CO) that support the corresponding Assessment in column 2. Further descriptions for activities and assessments are in their respective Units in D2L. When applicable, ✖ Indicates this is a Whole Person Assessment item. † indicates this is a faith integration item tracked by the program.

Unit 1	Introduction to Biology and Bioethics	Hours	Weight	CO
	Read/View/Listen	7	--	--
	Forum 1: Applied Biology	3	6%	1
	Quiz 1: Review Chapter 1	2	3%	1, 2
	Project 1: Adolescent Autonomy, Religious Freedom, and Medical Decision Making †	3.5	13%	6
Unit 2	Biologically Important Molecules and Cells	Hours	Weight	CO
	Read/View/Listen	10	--	--
	Forum 2: Ethics of Food Consumption †	4.5	6%	5, 6
	Quiz 2: Review Chapters 2, 9.1 and 3.2-3.4	2	3%	2
Unit 3	Reproduction and Genetics	Hours	Weight	CO
	Read/View/Listen	7.5	--	--
	Forum 3: Advantages and Disadvantages of Sexual Reproduction	4.5	6%	2
	Quiz 3: Review Chapters 6, 7 and 18.1	2	3%	2, 3
Unit 4	Organization of Organisms, Diversity of Prokaryotes, Protists, and Fungi	Hours	Weight	CO
	Read/View/Listen	9	--	--
	Forum 4: Antibiotic Resistance--Rise of the Superbugs	4.5	6%	2, 4, 5
	Quiz 4: Review Chapters 12.1 and 13	2	3%	2, 4
Unit 5	Diversity of Plants and Animals	Hours	Weight	CO
	Read/View/Listen	12	--	--
	Forum 5: Biodiversity and Christian Stewardship †	3	6%	5, 6
	Quiz 5: Review Chapters 14-15	2	3%	2, 4
Unit 6	Ecosystems and the Biosphere	Hours	Weight	CO
	Read/View/Listen	7.5	--	--
	Forum 6: Biome comparison	4.5	6%	4
	Quiz 6: Review Chapter 20	2	3%	2, 4
	Project 6: Contemporary Biology Issue – Topic and Outline	3	11%	5, 6
Unit 7	Conservation and Biodiversity	Hours	Weight	CO
	Read/View/Listen	5	--	--
	Forum 7: Why Study Biology?	3	6%	6
	Quiz 7: Review Chapter 21	2	3%	2, 4
	Project 7: WPA-GEN-OL-Contemporary Biology Issue (BIO 101) ✖	7	13%	2, 4
Course Total	Total estimated hours based upon an average of 16 hours per Unit for 7 Units	113	100%	

IX. COURSE INVENTORY

For ORU's University Outcomes

LBIO 101

This course contributes to ORU's university 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.

ORU defines each outcome and proficiencies/capacities listed below in this [Gen Ed Outcomes](#) paper.

OUTCOMES & Proficiencies		Significant Contribution	Moderate Contribution	Minimal Contribution	No Contribution
1	Outcome #1 – Spiritually Alive				
1A	Biblical literacy		X		
1B	Spiritual Formation			X	
2	Outcome #2 – Intellectually Alert				
2A	Critical thinking, creativity, and aesthetics		X		
2B	Global & historical perspectives	X			
2C	Information literacy	X			
2D	Knowledge of the physical and natural world	X			
3	Outcome #3 – Physically Disciplined				
3A	Healthy lifestyle		X		
3B	Physically disciplined lifestyle				X
4	Outcome #4 – Socially Adept				
4A	Ethical reasoning and behavior		X		
4B	Intercultural knowledge and engagement				X
4C	Written and Oral Communication			X	
4D	Leadership capacity				X

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This syllabus is subject to change without notice up until the first day of the semester.

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