

WAYLAND BAPTIST UNIVERSITY
WBU-ONLINE CAMPUS
SCHOOL OF MATHEMATICS & SCIENCES

MISSION:

Wayland Baptist University exists to educate students in an academically challenging, learning-focused and distinctively Christian environment for professional success and service to God and humankind.

COURSE TITLE AND NUMBER: BIOL 1400-VC01; Life Science

TERM (8-Week): SPRING 1 2022

NAME OF INSTRUCTOR: Dr. Wendi Wolfram

OFFICE PHONE NUMBER AND WBU EMAIL ADDRESS: wendi.wolfram@wayland.wbu.edu

OFFICE HOURS, BUILDING AND LOCATION: Online

CLASS MEETING TIME AND LOCATION: Online

CATALOG DESCRIPTION:

A general laboratory-based course for non-science majors or minors; employs the scientific method to discover how living things are: organized, acquire materials and energy, respond to their environment, reproduce & develop, and adapt to their environment; attention given to bio-ethical issues in contemporary biology. Lecture three hours; laboratory three hours. \$90 fee.

PREREQUISITE:

None

REQUIRED TEXTBOOK AND/OR RESOURCE MATERIALS:

TEXT: *Concepts of Biology.* Openstax College. <https://openstaxcollege.org/textbooks/concepts-of-biology>

NOTE: The textbook is a free textbook to view online or to download via PDF version. There is also a link on the site to purchase a hardcopy if you wish to do so or to purchase digital downloads of the text for iPad or Kindle. The ISBN for those are as follows:

Publish Date:

April 25, 2013

Print:

ISBN-10: 1938168119

ISBN-13: 978-1-938168-11-6

Digital:

ISBN-10: 1-947172-03-4

ISBN-13: 978-1-947172-03-6

iBooks:

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ISBN-13: 978-1-938168-22-2

License:

Concepts of Biology by OpenStax is licensed under Creative Commons Attribution License v4.0

COURSE OUTCOME COMPETENCIES:

Students will be able to:

1. Explain how living organisms metabolize and self-perpetuate.
2. Explain cell structure and function.
3. Explain basic similarities and differences between plants and animals in terms of morphology and physiology.
4. Explain the ecosystem concept in terms of homeostasis and the effect of perturbations on ecosystems.
5. Describe the basic classification of living organisms.

ATTENDANCE REQUIREMENTS:

In accordance with university policy, attendance in this course will be documented through a student's active engagement in weekly assignments, quizzes, or similar course elements requiring deliverables or direct communication between the student and the instructor through the University Learning Management System (LMS). Instructions for completing these assignments will be posted. Failure to complete or participate in the assignments may result in course or grade reductions. Failure to meet posted deadlines (reference **Calendar Due Date Checklist** for specific assignment submission dates) will result in a grade of zero or point reductions for the assignment affected. Students missing more than 25% of the classes may be dropped from the course. No make-up assignments or exams will be given, unless arrangements are made in advance of foreseen absences, emergencies excepted.

STATEMENT ON PLAGIARISM AND ACADEMIC DISHONESTY:

Wayland Baptist University observes a zero-tolerance policy regarding academic dishonesty. Per university policy as described in the academic catalog, all cases of academic dishonesty will be reported, and second offenses will result in suspension from the university.

DISABILITY STATEMENT:

Disability Statement – In compliance with the Americans with Disabilities Act of 1990 (ADA), it is the policy of Wayland Baptist University that no otherwise qualified person with a disability be excluded from participation in, be denied the benefits of, or be subject to discrimination under any educational program or activity in the university. The Coordinator of Counseling Services serves as the coordinator of students with a disability and should be contacted concerning accommodation requests at (806) 291-3765. Documentation of a disability must accompany any request for accommodations. Students should inform the instructor of existing disabilities the first-class meeting.

COURSE REQUIREMENTS AND GRADING CRITERIA:

- A. Students are required to access readings, videos, and podcasts through various internet sources. Assignments may require participation in various interactive tools including discussion boards, journals, online quizzes, or exams, written assignments, and student-produced video or audio files. Access to reliable internet is essential to successful participation in this course.
- B. Students are expected to read textbook assignments and compile a complete set of lecture notes. They are encouraged to become familiar with the recommended reference materials.
- C. Lectures are illustrated with a variety of visual aids and microscopic observations. Students are encouraged to email questions if they do not understand the content.
- C. Projects and Lab Assignments: Students are required to search scientific references. A short laboratory research project is performed and written up by each student in order to become familiar with scientific methodology.
- D. Tests. Lecture exams (4-5 major exams per semester), may contain both objective and essay questions. At least one exam will be a **PROCTORED EXAM**. WBU Online policy stipulates that **STUDENTS** must identify appropriate **PROCTORS** and that the proctors **MUST BE PRE-APPROVED**. Qualifications for acceptable proctors and procedures for getting them approved are posted on the WBU Online web page. Students **MUST** identify an approved proctor in advance and have them **PRE-APPROVED NO LATER THAN** the **THIRD WEEK** of the semester.

COURSE EVALUATION:

| | |
|-------------------------------------|-----|
| Lecture Exams | 50% |
| Assignments and Reading Assessments | 20% |
| Laboratory exercises | 30% |

University Grading System:

A = 90 - 100

B = 80 - 89

C = 70 - 79

D = 60 - 69

F = Below 60

I = Incomplete +

W = Withdrawal

A grade of incomplete is changed if the deficiency is made up by midterm of the next regular semester, otherwise, it becomes "F". This grade is given only if circumstances beyond the student's control prevented completion of work during the semester enrolled and attendance requirements have been met.

Students shall have protection through orderly procedures against prejudices or capricious academic evaluation. A student who believes that he or she has not been held to realistic academic standards, just evaluation procedures, or appropriate grading, may appeal the final grade given in the course by using the student grade appeal process described in the Academic Catalog. Appeals may not be made for advanced placement examinations or course bypass examinations. Appeals are limited to the final course grade, which may be upheld, raised, or lowered at any stage of the appeal process. Any recommendation to lower a course grade must be submitted through the Executive Vice President/Provost to the Faculty Assembly Grade Appeals Committee for review and approval. The Faculty Assembly Grade Appeals Committee may instruct that the course grade be upheld, raised, or lowered to a more proper evaluation.

TENTATIVE SCHEDULE (COURSE OUTLINE):

The following schedule is subject to modification by the instructor. Topics and reading assignments may include only a portion of the select chapters. Refer to weekly agendas for specific details.

| Week | Lecture Topic | Chapters | Lab Topics |
|--------|--------------------------------------|--------------------|--|
| Week 1 | Unit 1- Introduction to Biology | Chapter 1 | |
| | Unit 1 - Chemistry of Life | Chapter 2 | |
| Week 2 | Unit 1 – Cell Structure and Function | Chapter 3, 4 | Enzyme & Respiration Lab |
| | Unit 1 - Photosynthesis | Chapter 5 | |
| | EXAM I | Unit 1 | |
| Week 3 | Unit 2 – Cellular Reproduction | Chapter 6 | Cell Division Lab |
| | Unit 2 – Inheritance | Chapter 7, 8 | |
| Week 4 | Unit 3 – Genetics | Chapter 9 | Genetics Lab |
| | EXAM II | Unit 2-3 | |
| Week 5 | Unit 5 – Animal Form and Function | Chapter 16 | Diet and Nutrition Lab |
| Week 6 | Unit 5 – Animal Form and Function | Chapter 18 | Reproduction Lab (Life's Greatest Miracle) |
| | EXAM III | Unit 5 | |
| Week 7 | Unit 6 – Ecology | Chapter 19, 20, 21 | Ecology Lab (Queen of Trees) |
| Week 8 | EXAM IV | Unit 6 | |

ADDITIONAL INFORMATION:

TIME COMMITMENT - If taken during a 16-week semester in a traditional classroom setting, this course would meet for about 6 hours per week – about 3 hours in lecture and about 3 hours in lab. A good rule of thumb is that students should reserve at least as many hours outside of class as they spend in-class to review material and complete assignments. While WBU Online students have the benefit of flexibility in scheduling when they will review lecture and laboratory materials, the content of this course is NOT reduced from the traditional format and will require **AT LEAST** the same level of effort as the in-class version of the course! Therefore, to succeed in this course, students should be prepared to invest a **MINIMUM of 24 hours per week**, with additional effort required to complete lecture or lab assignments or to prepare for proctored exams. It is recommended that you take **NO MORE** than **ONE** additional class during the semester which you are taking BIOL 1400.

LABORATORY SPECIAL REQUIREMENTS

Some of the materials students will need to complete laboratory assignments must be purchased from local stores. These supplies are readily available at most grocery or department stores (e.g., Wal-Mart). Costs will be very moderate. Therefore, **students must have access to a grocery or department store.**

Some laboratory activities may require students to document their participation with digital photographs that will be uploaded to the instructor. For example, one lab may require students to visit a state park, botanical garden, or some other learning center focusing on the natural world. This assignment will be documented as a photo-journal that will be submitted for grading in electronic format. Therefore, **students must have access to a digital camera or cell phone.** Students are **NOT** being asked to purchase a camera with special features.

Wayland Baptist University Standards for Writing

Good writing exhibits the following characteristics:

1. **Content** is clearly purposeful, demonstrating depth, insight, and critical thinking.
2. **Structure** and **organization** are effective, coherent, and logically developed.
3. **Conventions** are conscientiously observed. This includes—but is not limited to—sentence structure, usage, and mechanics such as punctuation, grammar, and spelling.
4. **Style** is effective. Style has been defined as “the personality of the writing.” It includes—but is not limited to—word choice, sentence variety, voice, and attention to audience.
5. **Resources** are quoted and cited correctly, exhibiting quality and breadth. Plagiarism is unacceptable. See Plagiarism Statement in WBU Academic Catalog.