

**BIOL 1400 VC-01: Life Science
WBUOnline
School of Mathematics and Sciences**

SPECIAL NOTES

1. **BIOL 1400** – Life Science is a non-major, life science course meeting the biological science requirement for most Wayland Bachelor degrees. You should check your degree plan to confirm that this course will meet the requirements of the degree you are working on.
2. **TIME COMMITMENT** → If taken during an 11 week semester in a traditional classroom setting, this course would meet for about 7.5 hours per week – about 3.5 hrs in lecture and about 4 hrs 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 WBUOnline 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 15 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 in the term during which you are taking BIOL 1400!

3. **LABORATORY SPECIAL REQUIREMENTS** →

- a. Some of the materials students will need to complete laboratory assignments must be purchased from local stores. Costs will be very moderate. Also, there may be materials that you will be required to mail back to the instructor – AT YOUR EXPENSE. For example, students in this course will conduct a simple seedling growth study. You will be asked to purchase seeds, etc. from a local vendor or over the internet. At the end of the growth period (about 5 weeks), you might be required to mail the plant material back to your instructor so that seedling mass can be measured. You will need these data to write a lab report.
- b. Some lab activities will require the student to purchase simple items available in grocery stores or department stores (e.g., Wal Mart).

Therefore → Students must have access to a grocery store and/or department store.

- c. 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. A cell-phone with this option will suffice – students are NOT being asked to purchase a camera with special features.

4. **EXAMINATION SPECIAL REQUIREMENTS** → There will be PROCTORED EXAMS. WBUOnline policies stipulate that STUDENTS must identify appropriate PROCTORS and they MUST BE PRE-APPROVED. Qualifications for acceptable proctors and procedures for getting them approved are posted on the WBUOnline web page.
5. **Therefore → IF PROCTORED EXAMS ARE REQUIRED, students MUST identify examination proctors IN ADVANCE and have them PRE-APPROVED by the THIRD WEEK of the semester.**

Course Syllabus:
Wayland Baptist University
WBUOnline
School of Mathematics and Sciences

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

Course: BIOL 1400- VC00: Life Science (with-lab)

Term: Summer 2018

INSTRUCTOR: Dr. Wendi Wolfram
Office: On-line
Email: wendi.wolfram@wayland.wbu.edu
Office Hours: On-Line

CATALOG DESCRIPTION: Life Science – A general laboratory-based course for non-science majors or minors that employs the scientific method to discover how living things are: organized, acquire materials & energy, respond to their environment, reproduce & develop, and adapt to their environment. Attention will be given to bio-ethical issues in contemporary biology. Lecture three hours; laboratory three hours.

PREREQUISITES: none

Required Materials:

Text: *Concepts of Biology*. Openstax College. ISBN 978-1-938168-11-6

<https://openstaxcollege.org/textbooks/concepts-of-biology>

NOTE – this textbook is free. It can be downloaded in pdf or html format, purchased in printed form, or viewed on-line.

LAB MANUAL: Unless notified otherwise, we will use handouts provided by the instructor. These will be posted on the course Blackboard site.

COURSE WEBSITE: A course website has been established on WBU's Blackboard server. Each student is **REQUIRED** to establish an active account for this website and to log on to BB regularly for posted lecture notes, messages, assignments, and handouts. In addition, it is **REQUIRED** that each student activate their student email accounts – this is the official means of communication between faculty and students. If you require assistance in getting this done, please contact the IT department at itsupport@wbu.edu.

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/ Class Participation Policy:

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 course black board site. Instructions for completing these assignments will be posted by the instructor prior to or at the beginning of each week of the class. Failure to attend or participate in this class may result in administrative withdrawal from the course or grade reductions. Failure to meet posted deadlines will result in a grade of zero or point reductions for the assignments affected.

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:

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:

Students will be required to access readings, videos, or podcasts posted on BB or through various internet sources. Assignments may require participation in various interactive tools including discussion boards, journals, on-line quizzes or exams, written assignments, and student-produced video or audio files. Access to a reliable and reasonably fast internet connection is essential to successful participation in this course.

Course communication policy: WBU email is the official means of electronic communication between faculty and students. Students are **REQUIRED** to activate their WBU email address to receive or send email to the instructor. Announcements distributed through Black Board will use only your WBU email address. The instructor is **NOT RESPONSIBLE** for communications students fail to receive, or the consequences of missed communication, if their WBU account is not set up and working properly. If you need assistance setting up your WBU email account, contact the IT support desk at 806-291-3540.

Examination Special Requirements: There will be **PROCTORED EXAMS**. WBUOnline policies stipulate 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 WBUOnline web page.

Therefore - students MUST identify examination proctors IN ADVANCE and have them PRE-APPROVED NO LATER THAN the THIRD WEEK of the semester.

Elements of Success:

Life Science is made more challenging for some students because they do not recognize the level of effort necessary to succeed. Taking an on-line introductory course will require a firm commitment to learning and personal discipline in scheduling study and participation times. Although you will not be required to attend traditional lecture or laboratory sessions, you will be expected to understand through personal study the same concepts and terms required of students in the traditional lecture class. The advantage of an on-line course is the greater scheduling flexibility it affords the student, but if you are not attentive to course assignments this will probably be reflected in a lower grade for the course. So, given the nature of on-line learning and the demands of an introductory biology course, it would be wise to heed the following advice!

- 1. PARTICIPATE IN ALL CLASS DISCUSSIONS** – There will be frequent discussion topics and assignments posted on the course website. These are designed to help you focus on major terms and topics and to engage you in the learning process by sharing your discoveries and observations with your classmates and your professor. In order to effectively participate in on-line discussions, you will need to keep up with reading assignments. Your discussion grade (see below) will be assigned based on the quality of your participation in posted discussion threads. Depending on the material being covered, you may need to respond actively and regularly several times per week. If you are not checking in regularly and making your presence/participation known by asking questions or adding something to the ongoing discussion as instructed in course materials, then you are not participating actively and your grade will reflect that.

2. DO NOT MISS DEADLINES FOR CHAPTER OR PROCTORED EXAMS – There will be several exams given during the course. Exam formats may vary and may be given on-line with or without time limits. Specific instructions regarding exam administration will be provided at a later date. You will have exams that will be given in a proctored environment. **YOU MUST OBTAIN APPROVAL OF YOUR PROCTORS IN ADVANCE ACCORDING TO UNIVERSITY WBUONLINE PROCEDURES POSTED ON THE WBUONLINE BLACKBOARD SITE.**

NOTE that because of the nature of an on-line course, **MAKE UP EXAMS WILL BE GIVEN ONLY UNDER THE MOST EXTENUATING CIRCUMSTANCES** – if you miss a pre-arranged exam appointments without contacting the professor **WITHIN 24 HOURS** of the scheduled exam time, you will receive a **ZERO** for that exam.

3. READ AND STUDY ASSIGNED BOOK CHAPTERS AND ALL ADDITIONAL PAPERS OR OTHER MATERIALS – Even though the on-line format precludes traditional lecture presentation of course material, I will post lecture notes from the classroom section of this course that I offer. The notes will help guide your study of the textbook and related materials (i.e., readings and/or web links relevant to the topic covered). Effective preparation for lecture exams and participation in discussion sessions will require thorough attention to all assigned readings.

4. USE COURSE WEBSITE, INTERNET RESOURCES, STUDY QUESTIONS, AND HANDOUTS AS GUIDES – Prior to exams, I will post a study guide to direct your attention to material that I expect you to be thoroughly familiar with. These study guides will complement other postings. Based on questions submitted by course participants, I will post revisions to study guides or assignments so that there is minimal confusion regarding the nature of lecture exams.

GRADING:

Your course grade will be determined based on the number of points you earn on chapter assignments, lecture exams; laboratory exams; in-class assignments and quizzes; and through class participation, as described below.

Lecture Exams: Lecture exam grades will be worth 60% of your final grade. There will be on-line exams accompanying each chapter of material. Two of the lecture exams will be proctored. Lecture exams will consist of a combination of multiple choice, T/F, matching, short answer and essay questions as appropriate for the material.

Laboratory Exams and Assignments: Laboratory exams and assignments will account for 30% of your final grade. Laboratory exams or quizzes will be announced and scheduled as appropriate for the material covered. There will be one major lab report and a field trip/photo-journal assignment included in your lab grade. Point values for these assignments will be announced when they are posted.

Class Participation: Class participation will contribute 10% to your final grade. This grade will be based on exercises posted on BB, reflective essays or similar assignments, and on participation in discussion board or blogging activities and other assignments as appropriate.

Final Grades: Final grades will be assigned on the basis of the proportion of points earned from lecture and laboratory exams, etc., out of the total number of points possible. As stated earlier, points from lecture exams will be weighted to account for 60% of your final grade; lab points for 30%; and class participation for 10%. Final letter grades will be assigned as follows: A = 90-100%; B = 80-89%; C = 70-79%; D = 60-69%; and F = 59% or less.

Grading and Academic Standards: 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.

CLASS SCHEDULE:

The following class schedule is subject to modification by the instructor. Actual exam dates may change. Topic or schedule changes will be posted on Black Board.

BIOL 1400 - Life Science - ON-LINE			
Week	Tentative Lecture and Laboratory Schedule*		
	Lecture Topic	Reading	Weekly Lab Topics
Week 1	INTRO; Properties of Life	Ch 1	Scientific Method & Measurement
	Chemistry of Life	Ch 2	Seed Germination/Seedling Growth Study
Week 2	Cells	Ch 3	Osmosis & Diffusion
Week 3	Energy & Life	Ch 4 & 5	Enzymes & Respiration
Week 4	Cell Division & Inheritance	Ch 6 & 7	Cell Division
Week 5	Genetics & DNA Biology	Ch 8 & 9	Genetics Lab
Week 6	Diversity of Life (abbreviated)	Parts of 12-15	Photo-Journal Assignment
Week 7	Body Systems 1	Ch 16	Human Nutrition
Week 8	Body Systems 2	Ch 16 & 17	Human Nutrition
Week 9	Animal Reproduction	Ch 18	Human Anatomy
Week 10	Basic Ecology (abbreviated)	19-21 (parts)	Population Growth
Week 11	Basic Ecology (continued)	19-21 (parts)	LAB PROJECTS DUE – FRIDAY OF WEEK 10

* **NOTE 1: Lecture and exam schedules are subject to change (Changes in schedules will be posted on Blackboard.)**

** **NOTE 2: Reading Assignments may only include certain portions of chapters. See Black Board for specifications.**