

Wayland Baptist University
Division of Mathematics and Sciences

BIOL 1400 – VC-01 Life Science

Virtual Campus Edition

Spring 2014

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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.

CATALOG DESCRIPTION: Life Science – A general Life Sciences 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

TEXT: Mader, Sylvia S. 2009. *Essentials of Biology*, 3rd edition. McGraw-Hill, New York. ISBN- 0-07-352551-0

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.** (Wayland email). If you email me using an alternate email address (yahoo, google, etc.) it goes to my junk mail and I will not respond. **So USE your WAYLAND email. Announcements come to your Wayland email.** If you require assistance in getting this done, please contact the IT department at itsupport@wbu.edu.

COURSE OUTCOME COMPETENCIES:

Upon successful completion of this course, students will be able to:

- Explain how living organisms metabolize and self-perpetuate.
- Describe cell structure and relate structure to function.
- Compare and Contrast plants and animals in terms of morphology and physiology.
- Analyze ecosystems with respect to biotic and abiotic homeostasis, populations, communities and habitat.
- List and understand the basic classification of living organisms.

PARTICIPATION POLICY:

Your attendance is based on discussion, laboratories, quizzes, on-line exams, and proctored exams.

Your classmates will depend on you to help construct an understanding of the material in the discussion boards. It is essential that you be in the classroom several times a week to truly participate. Failure to meet posted deadlines may result in a grade of zero. **Any assignments that are accepted by the instructor after the due date will lose 10% of the grade per day (24hr period).** Submissions are time-stamped in Blackboard (discussion or assignments).

Exams and quizzes will not be reopened!!!

- All times and due dates will be US Central Time, observing daylight saving time.

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."

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. Labs - You must complete at least 50% of the labs to pass the course. Even if you have a 60 something percent (a D value) but have not completed at least 50% of the labs you will automatically fail the course.

2. PARTICIPATE IN ALL CLASS DISCUSSIONS – There will be many discussion topics and/or 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 participation/discussion grade will be assigned based on the quality of your participation in posted discussion threads/blogs/wikis. (See rubric for details) 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.

3. DO NOT MISS DEADLINES FOR QUIZ, LECTURE, OR PROCTORED EXAMS – There will be several exams given during the course. Exam formats will vary. If an exam is given in a proctored environment, YOU MUST OBTAIN APPROVAL OF YOUR PROCTORS IN ADVANCE ACCORDING TO UNIVERSITY VIRTUAL CAMPUS PROCEDURES POSTED ON THE VIRTUAL CAMPUS 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.

4. 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, some lecture notes or voice over Power Point will be included. 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.

Exam Requirements (29% of your grade)

Proctored Exams:

Virtual Campus policies stipulate that STUDENTS must identify appropriate PROCTORS and that they MUST BE PRE-APPROVED BY THE VIRTUAL CAMPUS (NOT ME). Qualifications for acceptable proctors and procedures for getting them approved are posted on the Virtual Campus web page.

See: http://www.wbu.edu/academics/online_programs/proctor/proctorrequest.htm

Therefore students MUST identify examination proctors IN ADVANCE and have them PRE- APPROVED by the THIRD WEEK of the semester.

Lecture Exams:

These exams will be comprised of 3-4 chapters of material. You may use notes and your text during the lecture exams. They will be timed, and may be taken only once. These three exams will be averaged together to attain a Lecture Exam grade.

COURSE EVALUATION AND GRADING:

The final grade in the course will be derived as follows:

27% Chapter quiz average. Two chapter quizzes will be dropped (including zeros). 27% Laboratory Exams and Assignments
17% Discussion / assignment participation grade 14% Proctored midterm and final exam average. 15% Lecture exams (3)

As this is a lab course: if at least 50% of the labs are not completed then you will automatically fail the course (even with a passing percentile grade).

University grading system

A 90-100

B 80-89

C 70-79

D 60-69

F below 60

I incomplete

W withdrawal

SPECIAL NOTES

1. BIOL 1400 – Life Science is a non-major, laboratory, life science course meeting the biological science requirement for some Wayland degrees. This course will meet the requirements if you require a laboratory life sciences course. You should check your degree plan and confirm with academic advisors that this course will meet the requirements of the degree you are working on.

This is an online course and you are expected to have reliable access to the Internet and possess computer competencies to submit assignments as attachments and download and upload large files.

Excuses for assignments being late and not turned in correctly because of internet reliability issues will not be accepted. The best way to fend off problems here is to get assignments done early, so that if issues arise, you can effectively deal with them before the deadlines. For some reason, it seems that computer problems tend to hit people trying to get an assignment done in the last minute. You will also be required to learn how to utilize various web-based tools which will require you to set up and use free accounts at web sites outside of WBU.

This course requires lab work, research, quizzes and discussions on a weekly basis. The course is *not* designed as a self-paced course, and will be very difficult if the student falls behind. No excuses because of other classes or commitments will be accepted for your failure to comply with these requirements. All assignments turned in must be in either MS Word 2003-2010, and the actual document name should be **your** last name followed by the title of the assignment (for example: yourname.metabolic rate.doc). The schedule is subject to change due to unexpected circumstances.

2. TIME COMMITMENT - This course has an extensive time commitment. If this course were taken in a traditional 15 week face to face classroom, classes would meet for about 4 hours per week. 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 virtual campus students have the benefit of flexibility in scheduling when they will review lecture and project 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 8 hours per week, with additional effort required to study for assignments or to prepare for chapter quizzes and proctored exams.

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. For example, students in this course will conduct a simple seedling growth study. You will be asked to purchase seeds from a local vendor or over the internet.

b. Some laboratory activities may require students to document their participation with digital photographs that will be uploaded into the classroom.

Therefore - > students must have access to a digital camera. A cell-phone camera will suffice. You are NOT being asked to purchase a camera.

Please scroll down to the next page for the class schedule!

BIOL 1400 Life Science Online Tentative Lecture and Lab Schedule (*subject to change)

Week	Lecture Topic	Chapters	Lab Topic
Week 1	Introduction Atoms Earth Overview	Chapter 1 Chapter 2	SAAWOK Lab
Week 2	Biological Molecules Cell Structures and Energy	Chapter 3 Chapter 4	Seed Project Begins Dependent / Independent Variables Lab
	LECTURE EXAM 1	Chapters 1-4	
Week 3	Energy Transfers	Chapter 5 Chapter 6 Chapter 7	Respiration Balloon Lab
	LECTURE EXAM 2	Chapters 5-7	
Week 4	Cell Cycle Mitosis / Meiosis	Chapter 8 Chapter 9	Cell Division and Cancer DNA Extraction Lab
Week 5	Mendelian Genetics DNA	Chapter 10 Chapter 11	Blood Typing and DNA Fingerprinting Lab
	LECTURE EXAM 3	Chapters 8-11	
Week 6	Tissues and Organs Transport Systems Maintenance Systems	Chapter 22 Chapter 23 Chapter 24	Adopt A Topic Project No Lab
Week 7	Immune System	Chapter 26	Blood Pressure Lab
Week 8	Reproduction System	Chapter 29	Life's Greatest Miracle Lab
	LECTURE EXAM 4	Chapter 22-24; 26, 29	
Week 9 Week 10 Week 11	Ecology and Populations Communities and Ecosystems Human Impact and the Biosphere	Chapter 30, 31, 32	Queen of Trees Ecology Project Human Impact Lab
	LECTURE EXAM 5	Chapter 30-32	