## Wayland Baptist University Division of Mathematics and Sciences

#### BIOL 1300 Life Science WBUonline Fall 2017

#### **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.

#### Instructor:

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#### **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.

#### **PREREQUISITES:**

none

#### TEXT:

**Concepts of Biology** - This a free open source textbook through Openstax college (Rice University). You can view it online, on your mobile devices, download a PDF (for free), or request a hard copy for a minimal price. [https://openstax.org/details/books/concepts-biology]

#### **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 <a href="itsupport@wbu.edu">itsupport@wbu.edu</a>.

#### **COURSE OUTCOME COMPETENCIES:**

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

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

#### **PARTICIPATION POLICY:**

In accordance with university policy, attendance in this course will be documented through a student's active engagement in the classroom. Your attendance is based on on-line quizzes, discussion, assignments, essays or reports, 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. Assignments must be submitted on time. **Any assignments 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.** Students missing more than 25% of the classes may be dropped from the course.

All times and due dates will be US Central 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. 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 online 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.

#### 2. DO NOT MISS DEADLINES FOR CHAPTER, LECTURE, OR PROCTORED EXAMS -

There will be several exams given during the course. Exam formats will vary. Two exam will be given in a proctored environment. You can do this onsite or remotely. YOU MUST OBTAIN APPROVAL OF YOUR PROCTORS IN ADVANCE. Click on "services" at the top of Blackboard to view this. MAKE UP EXAMS WILL BE GIVEN ONLY UNDER THE MOST EXTENUATING CIRCUMSTANCES.

#### 3. READ AND STUDY ASSIGNED BOOK CHAPTERS AND UTILIZE THE SUPPLEMENTAL 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.

#### **COURSE EVALUATION AND GRADING:**

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

- 21% Chapter quiz average. Two chapter quizzes will be dropped (including zeros).
- 15% Non-proctored "lecture exams"
- 18% **Proctored** midterm and final exam average.
- 21% Project grade average (3 projects during semester)
- 25% Discussion / participation grade

#### University grading system

A 90-100 B 80-89 C 70-79 D 60-69 F below 60 I incomplete W withdrawal

#### **Exams:**

Exam grades will comprise 57% of your final grade. Note: you can not pass the course by just taking the exams! A three-tiered approach will be followed to determine your exam grade.

Type of Assessment	Grade	General description of each assessment		
	percent			
		Chapter-level quizzes will not be timed and may be taken		
		multiple times with notes and books. The two lowest		
Chapter-Level Quiz	21%	chapter grades will be dropped. The remaining chapter		
		grades will be averaged together for a Chapter-level grade.		
*Timed Lecture Exams (3)		These exams will be comprised of 3-6 chapters of material.		
		You may use notes and your text during the lecture exams.		
	15%	They will be timed, and may be taken only once. These		
		three exams will be averaged together to attain a Lecture		
		Exam grade.		
Proctored Exams (2)		The midterm and final are proctored exams. These exams		
		will consist of multiple choice, T/F, matching, labeling, short		
	18%	answer, and longer essay questions. No resources may be		
		used. These two exams will be averaged to attain the		
		proctored exam grade.		

#### **Proctored Exam Requirements**

WBUonline policy stipulates that STUDENTS must identify appropriate PROCTORS and that they MUST BE PRE-APPROVED BY WBUonline (NOT ME). Qualifications for acceptable proctors and procedures for getting them approved are posted on the WBUonline web page or by **clicking on "services" tab in Blackboard** (above the course) for details.

We do have a remote proctor service called *Examity* that uses a webcam, microphone and locked browser such as you might have on a laptop, or attached to a desktop. It and costs \$12 for the first hour and \$5 each additional hour up to four. The exam can be taken 24/7 during the available time. So you have some convenience of using your own computer and you set the time. It is video recorded and reviewed by several people. If you are interested in this service contact me.

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

## **Important Dates**

Aug 20	Fall term begins
Sep 3	Labor Day Holiday
Sep 5	Census Date (Last day to drop without record) (25% tuition refund)
Oct 12	Last day to drop course w/ "W" (no tuition refund)
Oct 19	Last day to drop course w/ "WP/WF"
Nov 3	Last day of the term

## Scroll to the next page for the class schedule

### **Class Schedule**

This will give you an idea of the work and general topics during the 11 weeks. This schedule is subject to change if needed during the term.

Week	Lecture topic	Reading Chapter	Weekly topics	Due Dates
Week 1 August 21	Introduction, Atoms	1 and 2.1 and 2.2	SAAWOK Dependent and Independent Variables	
Week 2 August 28	Biological Molecules, Cell structure, Cell transport	all of 2	Diffusion and Osmosis	
Saturday-Monday	Lecture Exam 1		Take it when you are ready	Sept 1-3
Week 3 September 4	How Cells acquire Energy	3 and 4	Photosynthesis Aerobic Respiration	
Metabolism Project	Basal Metabolic Rate for you			Sept 9
Sunday-Monday	Lecture Exam 2		Take it when you are ready	Sept 9-10
Week 4 September 11	Cell Cycle, Mitosis/Meiosis, Genetic terms	6 and 7	Cell division and Cancer	
Week 5 September 18	Mendelian Genetics, DNA	8 and 9	Genetic and You	
Genome Project	Human Genome and Genes			Oct 1
Week 6 September 25	Proctored Midterm And Discussion on Biotechnology			
Week 7 October 2	Transport and Maintenance	16.3	Heart and Respiratory	
Week 8 October 9	Immune system	17	Immune system	

Week	Lecture topic	Reading Chapter	Weekly topics	Due Dates
(Sun-Mon)	Lecture exam 3			Oct 14-15
Week 9 October 16	Communities, population,		Human Population	
	Biodiversity	19, 20	Ecology Climate Change	
Week 10 October 23	Communities, population, Biodiversity	20,21	Same as above	
Ecology Project	Ecosystem analysis			Oct 28
Week 11 October 30	Human Impacts	supplements		
	Proctored FINAL			Nov 3