

Valdosta State University, BIOL 1107, Section A (3 credit hr)

Principles of Biology I – Spring 2021

Syllabus & Course Policies

For College of Science and Math,
and some Health Science Majors

Lecture: 9:00-9:50am

Lecture Instructor: Dr. Emily Cantonwine (Dr. Cantonwine or Dr. C)

Email: egcantonwine@valdosta.edu (VoiceThread is my preferred communication system)

Office: BC2031, Phone: 229-333-5337

Office hours: To be conducted using VoiceThread in Blazeview. Ask your questions in the “Office Hours” thread at any time or day. I will check and answer at 11am every MWRf. If you prefer to meet in-person, that is welcomed; however, because of Covid, an appointment is required. Please schedule through VoiceThread.

Graduate Assistants (GAs):

- Damion Castellans (dacastellano@valdosta.edu) - manages HW assignments & Exam Reviews
- TBA - manages “attendance” data, clicker grades & absences

Peer Alliance Learning (PAL) Facilitator: Freddie Mack (femack@valdosta.edu)

Welcome to Principles of Biology I. This is the first course in a series of courses at VSU designed to develop a strong foundation in the biological sciences.

BIOL 1107 Course Description. An introduction to the principles of biology for science majors, with an emphasis on the cellular nature of life. Concepts covered include the origin and early evolution of cellular life; cell structure, function, metabolism, and reproduction; cell signaling; and gene regulation in bacteria and eukaryotes. There are no prerequisites for this course. BIOL 1107 lab is a co-requisite for students who have not already completed that course and BIOL 1100 is a co-requisite for Freshman Biology majors (offered Fall semesters only)

REQUIRED RESOURCES

9781934931523	Turning Technologies Application & License	Turning Technologies	Required
9781319025311	Life: The Science of Biology (eBook + Access)	Sadava 11th	} Choose one Version - Required
9781319126193	Life (LoosePgs)(w/LaunchPad Access)	Sadava 11th	
9781319125714	Life: Biology (w/LaunchPad Acc)	Sadava 11th	

Course Objectives and Outcomes: By the end of this course, students will be able to

- demonstrate an understanding of fundamental concepts of biology, including
 - o the scientific method and experimental design
 - o cellular structure, function, metabolism, and reproduction
 - o the nature of the gene and its action
 - o the mechanisms of evolution
- apply academic skills critical to success in upper-division science courses and intended careers, such as
 - o accurate interpretation of graphs and diagrams
 - o fluent use of scientific terminology
 - o effective study skills

ASSESSMENTS

<u>Assessments</u>	<u>Possible Points</u>	<u>Percentage</u>	<u>SCALE</u>
Unit Exams (5)	500 (100 each)	62.5%	A ≥ 90%
Final Exam	100	12.5%	B ≥ 80%
Lecture Grade	100	12.5%	C ≥ 70%
Homework Grade	100	12.5%	D ≥ 59%
Total	800	100%	F < 59%
Extra Credit	60	up to +7.5%	

Estimate your grade using this equation:

$$\text{BIOL1107 Grade} = (\text{average exam grade} \times 0.75) + ((\text{attendance points} + \text{clicker points}) \times 0.125) + ((\text{vocabulary quiz points} + \text{content practice points}) \times 0.125) + (\text{total extra credit points} / 50\text{pt})$$

UNIT EXAMS AND FINAL EXAM – All examinations are required, including the final; and, unless the course moves to remote learning, all examinations must be taken in-person. If you miss an exam, you have 24hr to set-up a make-up exam. If you fail to contact me within this timeframe you forfeit the opportunity to take the make-up (unless I find your excuse to be acceptable to explain the delay). If you lack an acceptable excuse, the make-up exam will include fewer Multiple Choice and more Short Answer questions. **Students who earn less than 70% on an exam are required to complete an exam review activity (exam wrap) at least one week before the next exam.** More information will be provided in class.

LECTURE GRADE - Half of this grade will be based on “attendance” (50pt total; 6.25%) and the other half on in-class clicker performance (50pt total; 6.25%). If the course moves to online instruction for a significant portion of the semester, then the in-class clicker performance grade will be dropped and all 100pt will go towards attendance.

- “Attendance” is required for every lecture. There are two ways to “attend”. You can either come to class* or you can watch a recording of the lecture and upload your notes to VoiceThread. To earn in-class attendance credit, you must arrive on time, stay the entire time, be awake, remain on task, and answer the “are you present?” clicker question (or sign-in). To earn remote attendance credit, the entire Kaltura lecture recording must be watched (if you take a break, begin where you left off) and photos of your lecture notes - Remote Attendance Evidence (RAE) - with your name at the top of each page must be uploaded to VoiceThread by midnight on the day the lecture was recorded. This deadline begins the second week of class --- RAE for Weds, Jan 13 & Fri, Jan 15 is due Weds, Jan. 20. Due dates will be extended ONLY for students with documented excused absences who complete the work as soon as she/he/they are able. NO EXCEPTIONS. This part of the Lecture Grade will be computed as follows:

$$\# \text{ attendance points} = (\# \text{ attendance credits earned} / \# \text{ lectures}) \times 50\text{points}$$

** As long as demand is not too great, seating will be first-come, first-serve. In-class attendance is required for at least 10 lectures between the second week of class and the last week (when clickers are in use).*

- Between the second week and last week of class, Turning Technologies Clickers will be used to record in-class attendance and to provide opportunities to evaluate your understanding of the lecture material. For each clicker question, 2pt will be granted for correct answers, 1pt for incorrect answers, and 0pt for non-answers. At the end of each lecture, the clicker grade will be uploaded to BV as a percentage grade. The 10 highest clicker grades will be used to compute the clicker portion of your Lecture Grade.

$$\# \text{ clicker points} = \text{Average of highest 10 clicker grades (\%)} / 100 \times 50\text{points}$$

HOMEWORK GRADE - Half of this grade will be based on vocabulary quizzes (VQ). The other half will be based on your completion of a content practice (CP) assignment. See the Tentative Schedule for Due Dates.

- Each chapter we discuss has a list of vocabulary words to know. These lists are located in the Contents Section of BV. Your assignment is to use the Glossary of your Textbook to define each word (other resources are allowed ONLY for words not in the Textbook Glossary), and then to use your definitions to complete the timed vocabulary quiz on BV. The average of your 10 highest VQ scores (out of 13 quizzes) will be used to compute this portion of the HW grade as follows:

$$\# \text{ vocabulary quiz points} = \text{Average of highest 10 VQ grades (\%)} / 100 \times 50 \text{ points}$$

- The Learning Curve in LaunchPad is one way to complete the Content Practice Assignment; however, sometimes there will be an alternative to Learning Curve that you can do instead. These alternatives, when available, will be announced in BV at least 5 days before the due date. The average of your 10 highest CP scores will be used to compute this part of the grade.

$$\# \text{ content practice points} = \text{Average of highest 10 CP grades (\%)} / 100 \times 50 \text{ points}$$

EXTRA CREDIT - There are a handful of extra credit assignments that will add up to 60points. See tentative schedule. 60 points equates to 7.5 percentage-points.

Communication Plan.

- **General Questions.** Please use VoiceThread in Blazeview. Ask your questions in the private “Office Hours” thread at any time or day. I will check and answer at 11am every MWRF.
- **Urgent Questions.** Although VoiceThread is my preferred communication method, if you need an immediate response from me, email is better. If you do not receive a response from me quickly enough, try the following:
 - Damion Castellano for urgent issues with BV Quizzes or Learning Curve
 - eLearning for urgent issues with BV, Kaltura, VoiceThread (elearning@valdosta.edu)
 - For 24/7 BlazeVIEW technical support, call 1-888-772-0423. See eLearning webpage for additional communication methods.
- **Reporting and documenting absences.** There will be a private thread in VoiceThread where you can communicate with me at any time or day to report an absence.
- **Announcements.** Do not ignore BV announcements from me. I do my best to keep announcements to a minimum. So, if you see something from me, it is likely important.

Course Policies, Procedures, & Expectations. Respect for the learning environment is expected. This means for every lecture you are expected to be prepared, pay attention, take notes that reflect not only what is on the slide but also the gist of what is said, and avoid unnecessary distractions.

Cellphone, Smart Device, Laptop, Recording Device Policy. Students are not permitted to record the lecture or take photos of slides, unless I grant permission. You are encouraged to use the Turning Technologies Application with your cell phone in place of a separate clicker device. Cell phones should remain silenced and in clicker mode throughout the entire session. Other devices are allowed ONLY for students who remain on-task.

Attendance/Tardy Policy. As mentioned in the Assessment Section, in-class attendance is only required for 10 lecture periods between the second week of class and the last week. Students who arrive to class after the clicker attendance question, which will usually be at 9am sharp, may still enter the room if seating is available, and earn a clicker grade for remaining clicker questions, but will not be counted as “present”. Therefore, if you miss the 9am attendance question, you must sign-in and watch the portion of the lecture that you missed on Kaltura to earn the attendance credit for the day. Uploading the missed lecture notes will only be necessary if you are more than 10 minutes late. **AN IMPORTANT WARNING!!!** Do NOT send your clicker to class with another student so that you can be counted present, or attempt to use your clicker when you are not in the classroom. Photos will be taken of the classroom at the time of the clicker attendance question, and if we notice that your device is used, but you are not in the room, you will receive a 0 for your Lecture Grade & an Academic Dishonesty Incident Report will be filed.

Academic Integrity. I follow the Academic Integrity Policy of the University. Academic Integrity/ Honesty means performing all academic work without plagiarism, cheating, lying, tampering, stealing, receiving unauthorized or illegitimate assistance from any other person, or using any source of information that is not common knowledge. For more information, refer to www.valdosta.edu/academics/academic-affairs/academic-honesty-policies-and-procedures.php

Food and drink policy. Because of Covid-19 restrictions, drinks and snacks are not allowed in the classroom.

Concealed Carry. Firearms are not permitted in BIOL 1107 lecture because the course includes some students who are still in high school.

Title IX Statement. Valdosta State University (VSU) is committed to creating a diverse and inclusive work and learning environment free from discrimination and harassment. VSU is dedicated to creating an environment where all campus community members feel valued, respected, and included. Valdosta State University prohibits discrimination on the basis of race, color, ethnicity, national origin, sex (including pregnancy status, sexual harassment and sexual violence), sexual orientation, gender identity, religion, age, national origin, disability, genetic information, or veteran status, in the University's programs and activities as required by applicable laws and regulations such as Title IX. The individual designated with responsibility for coordination of compliance efforts and receipt of inquiries concerning nondiscrimination policies is the University's Title IX Coordinator: titleix@valdosta.edu

Access Statement. Students with disabilities who are experiencing barriers in this course may contact the Access Office for assistance in determining and implementing reasonable accommodations. The Access Office is located in Farbar Hall. The phone numbers are 229-245-2498 (V), 229-375-5871 (VP) and 229-219-1348 (TTY). For more information, please visit VSU's Access Office or email: access@valdosta.edu.

Important information.

- A grade of C or higher is required when BIOL1107 is a required course. Otherwise, a D is acceptable.
- Midterm is March 4th. The last day to withdraw is March 11.

Tentative Lecture Schedule, BIOL 1107K, Section A, Spring 2021

Week of	Subject	Chapters	VQ & CP HW due by 11:59pm
Jan 11	Syllabus Living organisms are similar Evolution	Introduction 1.1 Evolution	M W F - Extra Credit 1 due
Jan 18	<i>MLK Jr. Day – No Class</i> Investigating life through experiments Cellular structure & function	----- 1.2 5.1-5.3	M W - VQCh.1/CP1 & remote attendance evidence (RAE) for W/F prev. week; Remaining RAE due day of lecture F -----
Jan 25	Cellular structure & function Extracellular structure & evolution of eukaryotic cells Cellular membrane structure & function	5.3 5.4-5.5 6.1	M - VQCh.5/CP2 W ----- F - Extra Credit 2 due
Feb 1	EXAM 1 A-K (Monday, Feb 1 - Chapters 1 & 5) EXAM 1 L-Z (Wednesday, Feb 3 - Chapters 1 & 5) Basic chemistry (ONLINE – DUE WEDNESDAY) Macromolecule intro & lipids	EXAM 1 A-K EXAM 1 L-Z 2.1-2.3 3.1 & 3.4	M ----- W – VQCh.2/CP3 & online lecture evidence F -----
Feb 8	Proteins Carbohydrates Cell membrane adhesion & recognition, Passive transport	3.2 3.3 6.2-6.3	M - VQCh.3/CP4 W ----- F -----
Feb 15	Active transport Catch-up or Review Ch. 2.1-2.3, 3 & 6 Energy, Enzymes, & Metabolism	6.4-6.5 Catch-up or Review 8.1-8.3	M - VQCh.6/CP5 W ----- F -----
Feb 22	EXAM 2 L-Z (Monday, Feb 22, Chapters 2.1-2.3, 3 & 6) EXAM 2 A-K (Wednesday, Feb 24, Chapters 2.1-2.3, 3 & 6) Enzymes, & Metabolism cont. (ONLINE – DUE WEDNESDAY) Glycolysis & Krebs cycle	EXAM 2 L-Z EXAM 2 A-K 8.2-8.5 9.1-9.2	M ----- W - VQCh.8/CP6 & online lecture evidence F -----
March 1	Cellular respiration cont. Cellular respiration cont. Photosynthesis part 1	9.3-9.5 9.1-9.5 10.1-10.3	M - VQCh.9/CP7 W ----- F -----
March 8	Photosynthesis part 2 Catch-up Review Ch. 8-10	10.5 Catch-up Review	M - VQCh.10/CP8 W ----- F -----
March 15	EXAM 3 A-K (Monday, March 15, Ch. 8-10) Wednesday, March 17 th – NO CLASS EXAM 3 L-Z (Friday, March 19, Ch. 8-10) Nucleic acids & DNA (ONLINE – DUE FRIDAY)	EXAM 3 A-K ----- EXAM 3 L-Z 4.1, 13.1-13.2	M ----- W ----- F - VQCh.14/CP9 & online lecture evidence
March 22	From DNA to protein (transcription) From DNA to protein (translation) The cell cycle – mitosis & cytokinesis	14.2-14.4 14.5-14.6 11.1, 11.3	M – VQCh.13/CP10 W ----- F -----
March 29	DNA replication Sexual life cycle – meiosis Friday, April 2 – NO CLASS	13.3 11.4-11.5 -----	M - VQCh.11/CP11 W ----- F -----
April 5	Catch-up or Review EXAM 4 L-Z (Weds. Ch 4.1, 11, 13, 14) EXAM 4 A-K (Friday. Ch 4.1, 11, 13, 14) Basic Mendelian Genetics (ONLINE – DUE FRIDAY)	Catch-up or Review EXAM 4 L-Z EXAM 4 A-K 12.1	M - Extra Credit 3 due W ----- F – online lecture evidence
April 12	Mutations Mutations and diseases How mutations are analyzed & PCR	15.1 15.2 15.3 & 13.5	M - VQCh.15/CP12 W ----- F - Extra Credit 4 due
April 19	Genetic disease screening & treatment Cell communication Communication & multicellularity	15.4-15.5 7.1-7.2 7.3-7.5	M - VQCh.7/CP13 W ----- F - Extra Credit 5 due
April 26	Catch-up/ Review EXAM 5 A-K (Wed., April 28 Ch.12.1, 15, 7, 11.2 & 11.7) EXAM 5 L-Z (Friday, April 30 Ch.12.1, 15, 7, 11.2 & 11.7)	----- EXAM 5 A-K EXAM 5 L-Z	M ----- W ----- F - Extra Credit 6 due
May 3	READING DAY Final Exam L-Z (Friday, May 7, 8:00-9:00am) Final Exam A-K (Friday, May 7, 9:00-10:00am)	----- FINAL EXAM	