

Valdosta State University, BIOL 1107K, Sections A-F (4 Credit Hours)
Principles of Biology I – Fall2018
Syllabus & Course Policies

Lecture: BC 1011 – MWF, 8:00-8:50 am

Lecture Instructor: **Dr. Emily Cantonwine**, Office: BC 2031, Phone: (229) 333-5337, Email: egcantonwine@valdosta.edu
Office hours: **Mondays, Tuesdays, and Wednesdays 2-4:30**

Graduate Assistant (GA): **Brandi Griffin**, bmgriffin@valdosta.edu, BC 2025 - Assigned seats, attendance, clickers, homework, & excused absences.

Embedded Tutor (SI Leader): **Amber Holley**, anholley@valdosta.edu, Group tutoring and review sessions

Lab Sections: BC 1083

A Monday, 9:00-11:50, Dr. Ring	B Monday, 3:00-5:50, Dr. Nienow
C Wednesday, 12:00-2:50, Dr. Henkel	D Thursday, 11:00-1:50, Dr. Henkel
E Thursday, 2:00-4:50, Dr. Kang	F Friday, 9:00-11:50, Dr. Chambers

Welcome to Principles of Biology I. This is the first course in a series designed to help you develop a strong foundation in the biological sciences to build on throughout your studies at VSU and beyond.

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 1100 is a co-requisite for Freshman Biology majors that have not yet completed this course (offered Fall semesters only)

Required Resources:

9781934931523 Turning Technologies QT Clicker Device & Turn Tech 1yr Acct	Turning Technologies	Required	
9780738060064 Methods & Investing (Valdosta Custom)	Goddard	6th	Required
9781319025311 Life: The Science of Biology (w/eBook + Access)	Sadava	11th	} Choose one version
9781319126193 Life (LoosePgs)(w/LaunchPad Access)	Sadava	11th	
9781319125714 Life: Biology (w/LaunchPad Acc)	Sadava	11th	

Learning Goal

Students will demonstrate understanding of the physical universe and the nature of science, and they will use scientific methods and/or mathematical reasoning and concepts to solve problems.

Course Objectives and Outcomes (refer to Outcome section at end of syllabus for more information)

By the end of this course, students will be able to

- 1) answer questions that demonstrate an understanding of fundamental concepts of biology, including the scientific method and experimental design; cellular structure, function, metabolism, and reproduction; the nature of the gene and its action; and the mechanisms of evolution (GEO 5; BEO 1-4)
- 2) perform a variety of standard lab techniques used in biological research (GEO 5)
- 3) use critical thinking skills and written communication skills to present the results and conclusions of data collected in the lab in standard scientific writing format (GEO 4 & 7; BEO 1)

Assessments:

Lecture (75% of final grade; 750 points)

<u>Assessments</u>	<u>Points</u>	<u>SCALE Unit</u>
○ Unit Exams (5)	100 each	A ≥ 90.0%
○ Clicker + Homework Grade	50 + 50 (100 total)	B ≥ 80.0%
○ Final Exam (optional)	replacement points (100)	C ≥ 70.0%
○ <u>Procedure Grade</u>	<u>50</u>	D ≥ 60.0%
TOTAL POSSIBLE POINTS	650	F ≤ 59.99%
Extra Credit	30	

Lab (25% of final grade) - Refer to your lab syllabus for assessment details

Explanation of Lecture Assessments:

Unit Exams. Students will have 50 minutes to complete each exam. If you wake up late on exam day, come to the classroom. As long as this happens only once, you can complete the exam. If you completely miss the exam, see me ASAP to schedule a make-up. Make-up exams will be a mix of multiple choice and short answer questions. If you know you will miss an exam for a university-related reason, please schedule the make-up before the exam date. You may take the original exam early, or the make-up exam afterwards.

Clicker Grade. Beginning the second or third week of class, lectures will include an assessment using clicker questions. Each correct answer will count 2 points, incorrect answers will count 1 point, and questions that are not answered will count 0 points. To participate, students must be counted as present (see Attendance/Tardy Policy). *Individual clicker assessments* will be posted to Blazeview following the lecture. At the end of the semester, your Clicker Grade will be calculated as the average percentage after the lowest clicker score is dropped x 0.5. *It is your responsibility to get my approval for an excused absence and to make sure that the GA receives documentation of your excuse & my approval. If you allow someone to use your clicker in your absence, or if you use someone's clicker in his or her absence, you will receive a zero for the clicker grade.*

Homework Grade. For each assigned Chapter, students will have the option of completing one of two types of homework assignments, 1) defining vocabulary words and completing a vocabulary quiz on Blazeview, or 2) completing the Learning Curve adaptive reading quiz on LaunchPad. Any student electing to take the vocabulary quiz, must hand write the vocabulary words and have Dr. Cantonwine or the GA check this work; otherwise, the quiz will not count. You are welcome to do the vocabulary homework for Chapter 1 and the learning curve assignment for Chapter 2, just be sure to complete one assignment for each chapter. See the tentative schedule for expected due dates, and check Blazeview Announcements to see if any due dates change. This grade will be calculated as the average percentage of the 10 highest chapter scores x 0.5.

Final Exam. The final exam grade is worth 100 points and will replace the lowest unit exam grade or the clicker + homework grade. If you are happy with your grade prior to the final exam, you do not need to take the final. The final is cumulative.

Procedure Grade (PG). This grade will evaluate how well you follow course policies and procedures. Students are expected to attend class regularly, arrive to class on time, avoid using smart devices (besides clickers), and keep disruptions to a minimum. Points will be deducted for absences, tardiness, cellphone use, and disruptive behavior. * PLEASE NOTE* *If you need access to your cell phone during class due to an emergency, you may sit in one of the seats at the back of the classroom. Please see the GA on the morning that you need access. There are a limited number of seats where laptops or other note taking devices may be used during lecture. See the GA to select an approved seat.*

Extra Credit. There will be 30 possible extra credit points. The extra credit quizzes will be posted to the Assessment section of Blazeview. Check BV announcements to see when the quizzes open and close. If cheating is suspected, the extra credit opportunity will be taken away from the entire class. **NO ANSWER SHARING!**

Monitoring and computing your grade. Exam, clicker, & homework grades will be posted to the combined Blazeview page (**Principles of Biology I Section X01 FALL 2018 CO**). Your grade can be computed at any time using the following equation (see me during office hours if you would like help with this calculation):

$$\text{Final Grade} = [(\text{total points earned}/\text{total possible points}) \times 75] + (\text{average \% lab grade} \times 0.25)]$$

Course Policies and Procedures for Lecture:

Attendance/Tardy Policy. Attendance is expected. You will be automatically counted present if you are sitting in your assigned seat at the beginning of class. If you arrive late, please enter through one of the doors at the back of the room (on the second floor) & sign in.

Assigned seats. Assigned seats will be used (beginning the second week of class) to keep track of student attendance for the purpose of monitoring attendance and clicker usage. *You are welcome to change seats (temporarily or permanently) during the semester, but it is your responsibility to inform the graduate assistant of this change prior to making the move; otherwise, your pooled clicker grade may be dropped if you are counted absent but your clicker is detected!*

Expectations of conduct. I expect students to pay attention to the lecture and take notes. Students should not be disruptive to the instructor or other students. Only drinks and snacks that can be consumed quietly are acceptable (breakfast is not acceptable!). Cell phones and other smart devices are prohibited once class begins. Laptops are not permitted without prior approval.

Office hours and emails. The best time to come to my office is during office hours. Appointments are not necessary during office hours, just show up. If my office hours do not work for you, please just come by at your convenience to see if I am free to meet. Unless I am getting ready for a class or meeting with a research student, I can usually find time for you. But if not, we will set-up an appointment.

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@valosta.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.

Academic Integrity: I follow the Academic Honesty Policies and Procedures of the University and the Department of Biology's Policy on Plagiarism. For more information, refer to www.valdosta.edu/academic/AcademicHonestyPoliciesandProcedures.shtml and www.valdosta.edu/biology/documents/biologyplagiarism.doc "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.

Important information:

- For Biology majors, a grade of C or higher is required to move on.
- Midterm is the last day to withdraw from the course.

Tentative Lecture Schedule, BIOL 1107K, Sections A-F, Fall 2018

Week	Subject	Chapters	Homework
Aug 13	Syllabus Living organisms are similar Evolution	Introduction 1.1 Evolution	
Aug 20	Investigating life through experiments Cellular structure & function Cellular structure & function	1.2 5.1-5.3 5.3	HW Ch.1 (Monday)
Aug 27	Extracellular structure & evolution of eukaryotic cells Cellular membrane structure & function EXAM 1 (Friday, Sept 1 - Chapters 1 & 5)	5.4-5.5 6.1 EXAM 1	HW Ch.5 (Monday)
Sept 3	<i>Labor day – no class</i> Basic chemistry Macromolecule intro & lipids	2.1-2.3 3.1 & 3.4	HW Ch. 2 (Wednesday)
Sept 10	Proteins Carbohydrates Cell membrane adhesion & recognition, Passive transport	3.2 3.3 6.2-6.3	HW Ch.3 (Monday)
Sept 17	Active transport Catch-up or Review EXAM 2 (Friday, Sept 21, Chapters 2.1-2.4, 3 & 6)	6.4-6.5 EXAM 2	HW Ch. 6 (Monday)
Sept 24	Energy, Enzymes, & Metabolism Enzymes, & Metabolism cont. Glycolysis & Krebs cycle	8.1-8.3 8.2-8.5 9.1-9.2	HW Ch. 8 (Monday)
Oct 1	Cellular respiration cont. Cellular respiration cont. Photosynthesis part 1	9.3-9.5 9.1-9.5 10.1-10.3	HW Ch. 9 (Monday)
Oct 8	<i>Fall break – no class</i> Photosynthesis part 2 Catch-up or Review Ch. 8-10	10.5 Catch-up or Review	HW Ch. 10 (Wednesday)
Oct 15	EXAM 3 (Monday, Oct 15, Ch. 8-10) Nucleic acids; DNA and its role in heredity From DNA to protein (transcription)	Exam 3 4.1, 13.1-13.2 14.2-14.4	HW Ch. 14 (Wednesday)
Oct 22	From DNA to protein (translation) The cell cycle – mitosis & cytokinesis DNA replication	14.5-14.6 11.1, 11.3 13.3	HW Ch. 11 (Monday)
Oct 29	Sexual life cycle – meiosis Catch-up or Review EXAM 4 (Friday, Nov 2, Ch 4.1, 11, 13, 14)	11.4-11.5 Exam 4	HW Ch. 13 (Monday)
Nov 5	Basic Mendelian Genetics Mutations Mutations and diseases	12.1 15.1 15.2	HW Ch 15 (Monday)
Nov 12	How mutations are analyzed & PCR Genetic disease screening & treatment Cell communication	15.3 & 13.5 15.4-15.5 7.1-7.2	HW Ch 7 (Monday)
Nov 19	Communication & multicellularity <i>THANKSGIVING BREAK – no class W or F</i>	7.3-7.5	-----
Nov 26	Putting it all together – Cancer case study part 1 Putting it all together – Cancer case study part 2 EXAM 5 (Monday, Dec 3, Ch.12.1, 15, 7, 11.2 & 11.7)	11.2 & 11.7 11.7 Exam 5	-----
Dec 3	Review for final exam Final Exam (Wednesday, Dec 5, 8:00-10:00am)	Final Exam	-----