

Valdosta State University, BIOL 1107K
Section A; CRN# 83328 (3 credit hours)
Principles of Biology I, FALL 2020
Syllabus and Course Policies

Lecture: Student Union Ballroom Room 3216 (A, B and C) – MWF 8:00-8:50 AM
Instructor: Eric Chambers (Dr. Chambers) Office: BSC 2214 Phone: 229-249-2736
Email: ewchambers@valdosta.edu

Office Hours: MWF 9:30-10:30 AM

Graduate Assistant (GA): TBA

Embedded SI Tutor: Tod Butenschon

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 Materials:

1. **Textbook:** Life: The Science of Biology 11th edition. If you did not opt out of the Day 1 program you should already have the digital course materials. The Day 1 program allows the university to negotiate an excellent discount on materials for the students. The charge was added to your student account when you registered for the course. As of the first day of class, you should have access to these materials.

If for some reason you opted out of the Day 1 program you will need to acquire the textbook. This text is available in a variety of formats (shown in table below). You only need to purchase **ONE** of these three versions. All are available in the VSU bookstore or can be purchased through online providers. **If you elect to use another vendor please make sure that you purchase the 11th edition and that it includes LaunchPad access.**

ISBN	Format	Edition	Author
9781319126193	LoosePgs w/LaunchPad Access	11th	Sadava
9781319125714	Hardcover w/LaunchPad Access	11th	Sadava
9781319025311	eBook w/LaunchPad Access	11th	Sadava

It is my understanding that the Day 1 program is the most affordable option for acquiring this text and the digital interactive platform we will be using this semester. If you did happen to opt out there is good news—you can opt back in! -- you only have until the end of the day, on the last day of Add/Drop to opt back in.

Here is a link to the university web site with info on the Day 1 program:

<https://www.valdosta.edu/administration/finance-admin/auxiliary-services/bookstore-program/>

2. Interactive Response System (select **ONE** of the two options)

- a) Turning technologies Mobile phone app & 1 yr. account (approx. \$24.99)
- b) Turning Technologies QT Clicker Device & Turn Tech 1yr Acct (approx. \$49.98)

Course goals: The purpose of this course is to provide you with a broad introduction to the study of biology. The course is introductory and topical in nature but upon completion of this course you will be prepared for advanced specialized courses in biology. It will also provide you with a background to better understand many of the technological issues and challenges confronting our nation and the world.

This course will assist you in developing communication skills as well as information processing skills. These abilities are critical for all students, both those who wish to attend professional school (medical, dental, etc.) and graduate school as well as those who will move directly into the job market following graduation. Your critical thinking skills will be enhanced through analysis of lab exercises, class assignments, and test questions.

Educational outcomes: Listed at the end of syllabus

<u>Assessments:</u>	<u>Points</u>
○ Unit Exams	500
○ Rapid Response (50) + Homework grade (50)	100
○ Final Exam (optional)	replacement points (100)
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TOTAL POSSIBLE POINTS	600
Extra Credit	20

Explanation of Lecture Assignments:

Lecture Exams: Students will have 50 minutes to complete each exam

A total of 5-unit exams will be given during the semester. The dates are included in the tentative schedule at the end of the syllabus. All exams will be multiple-choice format. I typically only allow make-up exams for university-related reasons or legitimate medical issues. If you become ill, email me ASAP. If you know you will miss an exam for a university-related reason, please contact me ahead of time to discuss an appropriate date for scheduling your make-up exam.

Interactive Polling Questions: In this course we will utilize TurningPoint web-based polling technology to increase class engagement during lecture. Web-based polling questions will provide you a chance to receive immediate feedback on your understanding and interpretation of important biological principles. Polling questions will begin during the second or third week of class.

You will receive 1 point for each poll question that you answer during class (both correct or incorrect responses earn 1 point). You will receive 0 points if you do not respond during class or if you miss class. It is **your** responsibility to remember your response device and to make sure it

is charged. These are not attendance points. **Do not come up to me after class to tell me you were in class, or to give me a piece of paper with the responses. You only earn the points by responding using the web-based system!**

LearningCurve online assignments: LearningCurve is an adaptive quizzing and personalized homework program accessible using the LaunchPad web site. LearningCurve adaptive quizzing gives each student individualized question sets and feedback based on their correct and incorrect responses. All the questions link back to the e-book to encourage students to review key concepts as part of exam preparation. You are to complete 10 LearningCurve assignments during the course of the semester. Exam dates serve as the deadline. In other words, if exam #1 covers chapters one through four you would have until the exam date to complete the assignment for all four chapters. **I strongly suggest you complete the LearningCurve assignments before we discuss the chapter in lecture.**

LearningCurve assignments are completed by attaining a **Target Score** established by the instructor. The number of questions you must complete are based upon your ability to select the correct answer for each question. **Each LearningCurve assignment will be worth 5 points. Once you have completed 10 LearningCurves you will have attained the maximum number of points for this grade element.** You may then continue to complete additional LearningCurve assignments as part of your exam preparation.

Grade Scale: For Biology majors a grade of C or higher is required for this course.

A 90-100% (450-500 points)
B 80-89% (400-449 points)
C 70-79% (350-399 points)
D 60-69% (300-349 points)
F < 60% (0-299 points)

Notes on grading: Students should note that a grade of "A" in this course represents an exemplary command of the material covered. To obtain this grade of excellence, it is recommended that students study daily and clarify with their instructor any problems regarding course information, as they arise.

Biology Tutoring: The Academic Support Center (ASC) at Valdosta State University is located on the second floor of the Odum Library. The ASC provides free peer tutoring in core curriculum courses, including biology, chemistry, math, writing, and foreign languages. The ASC also provides periodic workshops covering topics such as time management and study skill development. Call 333-7570 to make an appointment, or visit their website at <https://www.valdosta.edu/asc/>

General Rules:

Attendance: Because of physical distancing requirements that have been enacted due to the outbreak of COVID19 we can only seat 152 students in this lecture hall. Because there are 175 students enrolled in this section not everyone can physically attend each lecture. I will assign each student to one of three groups: A, B, and C and you will attend lecture one day a week using the following schedule:

Monday: Group A
Wednesday: Group B
Friday: Group C

On the days that you do not attend in this hall I will live-stream the lecture. I will provide details on how to do this in Blazeview. I will also make a videotape of each lecture using the Kaltura app and post this to Blazeview.

Attendance in lecture on your assigned day is **expected** of all students. You will not earn interactive rapid response points unless you attend lecture. You will have difficulty passing this course if you do not consistently attend lecture!

Academic conduct: Cheating and plagiarism will not be tolerated and may result in a failing grade for the assignment, exam or the class.

Lecture Conduct:

Arrive on time

- Quickly find a seat
- Do not congregate in hall-way outside of class nor in the aisles of the lecture hall
- Do not move the desks—they have been positioned so as to ensure proper physical distancing
- Turn off/silence cell phones during class and lab.
- Remove headphones and earbuds while in lecture, lab, and during exams.
- Don't talk during lecture except during active learning exercises or asking a question
- Avoid leaving class early
- You and you alone use your clicker in class. If your clicker is found in the possession of another student both of you will lose all your clicker points for the semester!
- Do not leave lecture hall until you are dismissed—we will dismiss students in the rear of room first—then those near the front

Procedure for exams:

- No books, electronic devices, or notebooks will be allowed during exams and students using such items will be asked to leave and will receive a zero for the exam.
- No talking will be allowed during the exam, but students are permitted to ask the instructor questions.
- Each student will be given an exam to be completed and handed back to the instructor.
- Students must bring a pencil and will take the exam during the stated lecture time only.
- **NOTE:** You will have the class time only to complete each lecture exam.

Student identification: Students should have in their possession at all times their VSU student identification card. Because of the large size of the class this semester we will be checking student ID or another form of picture ID during exams.

Privacy Act (FERPA): The Family Educational Rights and Privacy Act (FERPA) prohibits the public posting of grades by social security number or in any manner personally identifiable to the individual student. No grades can be given over the telephone or over email because positive identification can't be made.

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.

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: Maggie Viverette, Director of the Office of Social Equity, titleix@valdosta.edu, 1208 N. Patterson St., Valdosta State University, Valdosta, Georgia 31608, 229-333-5463.

Campus Gun Carry Statement (HB 280): If you choose to carry a concealed weapon on campus, you are responsible for knowing and following the law. Refer here for FAQ: <https://www.valdosta.edu/administration/finance-admin/police/campuscarry/>

University Policy for Face Coverings: As the Blazer Creed articulates, members of the VSU community are expected to live by the high standards of civility, integrity, and citizenship and embrace their responsibility as a member of the Blazer community. In recognition of this responsibility, and in response to the best available science and current guidance from the Centers for Disease Control and Prevention and the Georgia Department of Public Health, **every student must wear a face covering that covers their nose and mouth at all times while in any campus building, including in this classroom.** This requirement is intended to protect the health and safety of all VSU students, the instructor, and the entire university community. Anyone attending class without a face covering will be asked to put one on or leave. Students should also be sure they maintain a distance of at least six feet away from their fellow students and instructor and are seated in a seat that is designated to ensure that distance. *(Add other appropriate language specific to the class here.)* Students who refuse to wear face coverings appropriately or adhere to other stated requirements may face disciplinary action for Code of Conduct violations.

Coronavirus Resources for Students: VSU cares about student success both on and offline, and a variety of resources are available to help students both academically and personally during the Fall 2020 semester.

One of the best resources is VSU's Coronavirus FAQ page located at <https://www.valdosta.edu/health-advisory/faq.php>. Information is available there about a variety of topics in VSU's return-to-campus plan. A website devoted to the health and wellness of VSU students can be seen at <https://www.valdosta.edu/administration/finance-admin/campus-wellness/student-resources.php>.

You can find information, including how you can access the Brightspace Pulse app that will allow you to view BlazeVIEW on your smartphone at <https://www.d2l.com/products/pulse/>. In BlazeVIEW, all VSU students have a course with guides for how to use tools in BlazeVIEW; search for "VSU BlazeVIEW Student Tutorial 2020."

***Key Dates :**

Aug. 17, 2020 – First day of class

Aug. 20, 2020 - Registration for Fall semester ends (11:59 pm)

Sept. 7, 2020 – Labor Day Holiday (University closed/no classes)

Oct. 7, 2020 – In-progress grades due (5:00 PM)

Oct. 8, 2020 – Official midterm; Students can view In-progress grades

Oct. 15, 2020 – Withdrawal deadline for full-term VSU courses Fall 2020

Nov. 24, 2020 – Last day for on-campus classes

Nov. 25-27, 2020 – Thanksgiving Holidays (University closed/no classes)

Nov. 30-Dec. 7, 2020 – Flex week

Dec. 8-11, 2020 – Final Exams

Tentative Lecture Schedule, BIOL 1107K, Section A, Fall 2020

Week of	Topics	Chapter
August 17	Syllabus Living Organisms are similar/ Evolution Investigating Life through Experiments	Syllabus 1.1 1.2
August 24	Cellular structure and function Extracellular structure and evolution of eukaryotic cells Cell membrane structure and function	5.1-5.3 5.4-5.5 6.1
August 31	Exam #1 (Mon/Wed August 31 and September 2) Basic Chemistry	Ch. 1, 5, 6.1 2.1-2.3
September 7	Labor Day – No class Macromolecule introduction/lipids Proteins	3.1 & 3.4 3.2
September 14	Carbohydrates Cell junctions; passive transport Active transport	3.3 6.2-6.3 6.4-6.5
September 21	Exam #2 (Mon/Wed September 21 and 23) Energy, Enzymes, & Metabolism	Ch. 3, 6.2-6.5 8.1-8.3
September 28	Enzyme and Metabolism Glycolysis and Krebs Cycle Cellular Respiration	8.2-8.5 9.1-9.2 9.3-9.5
October 5	Photosynthesis I Photosynthesis II Nucleic acids; DNA and its role in heredity	10.1-10.3 10.4-10.5 4.1, 13.1-13.2
October 12	Exam #3 (Mon/Wed October 12 and 14) DNA replication	Ch. 8-10 13.3
October 19	From DNA to protein (transcription) From DNA to protein (translation) The cell cycle – mitosis & cytokinesis; meiosis	14.2-14.4 14.5-14.6 11.1, 11.3-11.5
October 26	Basic Mendelian genetics Exam #4 (Mon/Wed October 26 and 28)	Ch. 12.1 Ch. 4, 11, 13,14
November 2	Mutations Mutations and Disease How mutations are analyzed by PCR	15.1 15.2 15.3 & 13.5
November 9	Genetic Disease screening and treatment Cell communication Communication and multicellularity	15.4-15.5 7.1-7.2 7.3-7.5
November 16	Catch up or Review Exam #5 (Wed/Fri November 18/20)	Ch. 7, 12.1, 15
November 23	Review	
December 9	Final Exam (Format TBD)	

Valdosta State University General Educational Outcomes (GEO)

1. Students will demonstrate understanding of the society of the United States and its ideals.
2. Students will demonstrate cross-cultural perspectives and knowledge of other societies.
3. Students will use computer and information technology when appropriate.
4. Students will express themselves clearly, logically and precisely in writing and in speaking, and they will demonstrate competence in reading and listening.
5. Students will demonstrate knowledge of scientific and mathematical principles and proficiency in laboratory practices.
6. Students will demonstrate knowledge of diverse cultural heritages in the arts, the humanities, and the social sciences.
7. Students will demonstrate the ability to analyze, to evaluate, and to make inferences from oral, written and visual materials.
8. Students will demonstrate knowledge of principles of ethics and their employment in the analysis and resolution of moral problems.
9. 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.

Department of Biology Educational Outcomes (BEO)

1. Develop and test hypotheses, collect and analyze data, and present the results and conclusions in both written and oral format used in peer- reviewed journals and at scientific meetings.
2. Describe the evolutionary process responsible for biological diversity, explain the phylogenetic relationships among the other taxa of life, and provide illustrative examples.
3. Demonstrate an understanding of the cellular basis of life.
4. Relate the structure and function of DNA/RNA to the development of form and function of the organism and to heredity
5. Interpret ecological data pertaining to the behavior of the individual organism in its natural environment; to the structure and function of populations, communities, and ecosystems; and to human impacts on these systems and the environment.