

**Valdosta State University, BIOL 1107K, Sections A-F (4 Credit Hours)**  
**Principles of Biology I – SPRING 2016**  
**Syllabus & Course Policies**

Lecture: BC 1011 – MWF, 9:00-9:50

Lecture Instructor: Dr. Emily Cantonwine (Dr. Cantonwine)      Office: BC 2031      Phone: (229) 333-5337

Email: [egcantonwine@valdosta.edu](mailto:egcantonwine@valdosta.edu)

Office hours: W 10:30-1 and R 1-3:30. **I do not make appointments during these times... just show-up.**

Graduate Assistant (GA): Lorraine Dawkins

Embedded Tutors: TBA

Lab Sections: BC 1083 – A - M 10-12:50 Dr. Chambers; B - M 2-4:50 Dr. Chambers; C - T 9:30-12:20 Dr. Calestani; D - W 11-1:50 Dr. Chambers; E - R 9:30-12:20 Dr. Calestani; F - W 2-4:50 Dr. Calestani

*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.

Required Resources:

- **Biology** by OpenStax College. See <https://openstaxcollege.org/textbooks/biology> for ways to get the book.
- Turning Technologies Clicker NXT
- R.H. Goddard. 2011. *Methods and Investigations in Basic Biology*. Sixth Edition. Hayden-McNeil Publishing, Plymouth, MI. (Lab manual)

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)

	<u>Points</u>	<u>SCALE</u>
• Lecture grade		
7 of 8 - the lowest of these grades will be dropped		A ≥ 90.0%
○ Unit Exams (5)	100 each	B ≥ 80.0%
○ Clicker Grade (1)	100	C ≥ 70.0%
○ Blazeview Quiz grade (1)	100	D ≥ 60.0%
○ Cumulative Final Exam (1)	100	F ≤ 59.99%

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Total possible pts = 700 after lowest grade is dropped

Lab (25% of final grade)

- Refer to your lab syllabus for assessment details

## Explanation of Lecture Assessments:

**Unit Exams.** A percentage score will be determined for each unit exam. There are no make-up exams, regardless of excuse. If you miss an exam, this will be the grade that is dropped. Students may not take exams early, with the exception of students with a university-related or religious excuse. The unit exams are not cumulative.

**Clicker Grade.** Beginning in the second 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. *Individual clicker assessments* will be posted to Blazeview following the lecture. At the end of the semester, your *Clicker Grade* will be calculated using the following equation:

$$\sum ((\text{individual clicker grades converted to a percentage}) - (\text{lowest individual clicker grade percentage} + \text{any clicker grades where the absence was excused and documented by TA})) / \# \text{ of individual clicker grades used.}$$

*\* The lowest individual clicker grade is dropped from the pooled grade to allow for a forgotten clicker or malfunctioning clicker. Students are therefore allowed one pass for unintended errors. It is your responsibility to fix any clicker issues in a timely manner.*

*\* It is your responsibility to get my approval for an excused absence and to make sure that the GA receives documentation of my approval.*

*\* The Pooled Clicker Grade will be the lecture grade that is dropped if you allow someone to use your clicker in your absence, or if you use someone's clicker in his or her absence.*

**Blazeview Quiz Grade.** This grade will be an average of all quiz grades posted to Blazeview. In most cases, quizzes will open on Fridays and must be completed by 8 am on Mondays. Check Blazeview frequently for updates on quiz deadlines. You will get one attempt for vocabulary quizzes (VQ) and two attempts for practice quizzes (PQ). If you have any technical problems accessing or completing your quiz, contact Blazeview's 24 hour, 7 days/week hotline at 855-772-0423.

**Final Exam.** The final exam will be cumulative, and is weighed the same as the unit exams, the clicker grade, and the quiz grade. Students may choose to drop the final (i.e. not take it), if they are happy with their grade. Otherwise, the final exam grade will replace the lowest of the previous grades.

**Extra Credit, Concept Coach Reading Assignments.** Your OpenStax textbook has a free learning system called Biology with Concept Coach that we will try out this semester. By completing all of the concept coach reading assignments by the posted deadlines, you can increase to your quiz grade by 5% points. Partial points will be based on the percentage of reading assignments that are completed by the deadlines, with a higher weight for those completed after the deadline but before the exam than for those completed after the exam or not at all. \*If your quiz grade is the grade that is dropped, these extra credit points will be added to the clicker grade.

1. Follow this link to visit your Biology textbook with Concept Coach:

**<https://cnx.org/contents/NALcUxE9@2.2:3>**

2. Click on section 1.1 in the book. Scroll to the bottom of the section and click on the Concept Coach button.

3. Click "Sign up" and follow the prompts to create your free account.

4. At the end of your account set-up, you will be prompted to enter your two-word enrollment code: **minute block**

5. Continue to your Concept Coach questions!

## **Monitoring and computing your grade**

All lecture grades will be posted on the Blazeview page **Principles of Biology I Section X01 Spring 2016 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):

$$\text{Final Grade} = [(\text{Exam 1} + \text{Exam 2} + \text{Exam 3} + \text{Exam 4} + \text{Exam 5} + \text{Pooled Clicker Grade} + \text{Average Quix Grade} + \text{Final Exam} - \text{lowest of these grades}) \times 0.75] + (\text{average \% lab grade} \times 0.25)$$

Lab communications will be made using the section specific Blazeview page. For example, if you are in BIOL 1107K Section A, your Blazeview page for lab is **Principles of Biology I Section A Spring 2016 CO**.

### **General Rules:**

**Attendance Policy.** Attendance is not required in lecture. The attendance policy in the laboratory is per the discretion of the laboratory instructor and may significantly impact your potential grade. Refer to the lab syllabus for details.

**Assigned seats.** Assigned seats will be used (beginning the second or third week of class) to keep track of student attendance for the purpose of monitoring 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!**

**Lecture Notes.** Powerpoint slides with fill-in blanks will be provided for printing at least 24 hours before the lecture (beginning the second week of class). Students are expected to print the slides and fill in the blanks during lecture. If you miss a lecture, you may use the textbook to fill in the blanks yourself (recommended), or ask a fellow student or the embedded tutors.

### ***Student conduct***

- Arrive on time and have all the materials you need (including your clicker) when class begins.
- Your full attention should be on the course material. If this is not possible, please be respectful of your fellow students by not being disruptive.
- You do not need my permission to leave class early. Please do so in the least disruptive way.
- Disruptive students may be asked to leave the classroom. I consider listening to music, surfing the internet, obvious texting, and talking to your neighbor while material is being presented to be disruptive.

### ***Food and Drink***

- Drinks and snacks are allowed in the lecture hall as long as their consumption and storage are not a disturbance to yourself or other students. Each student must clean up after him or herself; otherwise, this privilege will be revoked. Drinks and snacks are not allowed in lab!

### ***Electronic Devices***

- Bring your clicker to lecture every day! Clickers will not be used in labs, unless otherwise stated by your lab instructor.
- Turn off your cell phone during class!
- Turn off your MP3 player and remove your earbuds/headphones during lecture.
- Laptops & related tools, including photographing slides, are not allowed for note taking without my permission.
- Recording devices are not permitted to be used without my permission.

Special Needs: If you have need for special arrangements to allow you to meet the requirements of this course, please contact the Access Office for Students with Disabilities in Nevins Hall, 245-2498. Also, please discuss this need with me before the end of the second week of class.

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](http://www.valdosta.edu/academic/AcademicHonestyPoliciesandProcedures.shtml) and [www.valdosta.edu/biology/documents/biologyplagiarism.doc](http://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.
- March 10 is the last day to withdraw from the course.

**Tentative Lecture Schedule, BIOL 1107K, Sections A-F, SPRING 2016**

Week of	Subject	Concept Coach Reading Assignments and tentative due dates	Due following Monday by 8am
Jan 11	What is Biology? The cell theory; Main types of cells & organisms	1.1, 1.2 (due Tuesday pm)	VQ I (opens Friday, Jan 15, due Weds, Jan 20, 9am due to holiday)
Jan 18	<i>MLK Jr day, no class (Jan 18)</i> ; Cell Structure	4.2, 4.3, 4.4 (due Tuesday pm) 4.5, 4.6 (due Sunday pm)	PQ I (opens Friday, Jan 22, due Monday, Jan 25, 9am)
Jan 25	Cells Structure; <b>EXAM 1 (Friday, Jan 29)</b>	TBA on Blazeview	TBA on Blazeview
Feb 1	Structure and Function of Plasma Membranes; Biological Macromolecules - Lipids	TBA on Blazeview	TBA on Blazeview
Feb 8	Biological Macromolecules – dehydration reactions, Proteins; The Chemical Foundation of Life	TBA on Blazeview	TBA on Blazeview
Feb 15	Membrane transport	TBA on Blazeview	TBA on Blazeview
Feb 22	<b>Exam 2 (Monday, Feb 22)</b> ; Metabolism; Carbohydrates; hydrolysis reaction	TBA on Blazeview	TBA on Blazeview
Feb 29	Cellular Respiration	TBA on Blazeview	TBA on Blazeview
March 7	Photosynthesis; <b>Exam 3 (Friday, March 11)</b> ;	TBA on Blazeview	TBA on Blazeview
March 14	SPRING BREAK	TBA on Blazeview	TBA on Blazeview
March 21	Biological Macromolecules – Nucleic acids; DNA Structure and Function;	TBA on Blazeview	TBA on Blazeview
March 28	Genes and Proteins; Cell Reproduction	TBA on Blazeview	TBA on Blazeview
April 4	Meiosis and Sexual Reproduction; Mendel's Experiments and Heredity (Exam 5 material)	TBA on Blazeview	TBA on Blazeview
April 11	<b>Exam 4 (Wednesday, April 13)</b> ; Modern Understandings of Inheritance; Cell Communication	TBA on Blazeview	TBA on Blazeview
April 18	Gene Expression	TBA on Blazeview	TBA on Blazeview
April 25	Biotechnology and Genomics, <b>Exam 5 (Friday, April 29)</b>		
May 2	<b>Review day</b> <b>Final Exam (Friday, May 6, 8-10am)</b>		

## 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.

## 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.