BIOL 1107K, Principles of Biology I
Spring Semester, 2014 Sections A, B, C, D, E, F

Lecture (BC 1011): TR 8:00 a.m. - 9:15 a.m.

Laboratory (BC 1083):

Section A (CRN 21915; Nienow):	Mon.: 9:00 a.m. – 11:50 a.m.
Section B (CRN 21916: Kang):	Mon.: 1:00 p.m. – 3:50 p.m.
Section C (CRN 21917; Nienow):	Tues.: 9:30 a.m. - 12:20 p.m.
Section D (CRN 21918; Calestani):	Wed.: 9:00 a.m. – 11:50 a.m.
Section E (CRN 21919; Calestani):	Wed.: 1:00 p.m. – 3:50 p.m.
Section F (CRN 21920; Shah):	Thurs.: 9:30 a.m. – 12:20 p.m.

Instructor: Dr. Russ Goddard, BC 2090. (Phone 249-2642; or Dept. office 333-5759)
(Office hours: TR 9:30 – 11:30 a.m.)
Official Contact email: rgoddard@valdosta.edu

Course Catalog Description: BIOL 1107 Principles of Biology I; 3-3-4; Co-requisite for biology majors: BIOL 1100. 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.

Required Materials:

Text: Sadava, D., D.M. Hillis, H.C. Heller, and M.R. Berenbaum. 2014. Life: The Science of Biology. 10th edition. Sinauer Associates Inc., Sunderland, MA.

Note: There is a GRADED component to this course using the interactive quizzing software (Learning Curve) available through the publisher's web page called BioPortal

There are three versions of the text book that students may choose to purchase (purchase just one!):

1. The ebook alone available through the publishers web site (https://purchase.bfwpub.com/purchase/transaction/transaction.php?productId=life10e) The cost for this should be about $95.00 but access is only good for two years.
2. The loose leaf version of the Sadava Text in the VSU Bookstore (9781464141669)
3. The hard back version of the Sadava Text in the VSU Bookstore (9781464141652)

Options 2 & 3 have a portal access code included with the book. Do Not Purchase a used book if you are looking to complete all graded components of the course.

Publisher's BioPortal Web Page Access: http://courses.bfwpub.com/life10e.php

Student Instructions for accessing BioPortal:

1. Go to http://courses.bfwpub.com/life10e (Mac users need to use Firefox).
2. Click on the link "REGISTER AN ACTIVATION CODE."
3. Your students will be prompted to follow the on-screen instructions to find your course. They will start by selecting the school's state/province, the school name, then their instructor, course, and/or section.
4. Your students will enter the activation code that came with their textbook or that they purchased from us. They will also be asked to enter their email address, choose a password and they will be ready to go!
5. Your students can also purchase access online via the website by clicking on the "PURCHASE" link.

Laboratory Manual: Goddard, R.H. 2013. Methods and Investigations in Basic Biology, 6th ed. Hayden-McNeil Publishing, Plymouth, MI.

"Clickers": Each student is required to obtain a Turning Technologies NXT clicker (available in the bookstore). All students are responsible for having their clickers with them in class. All points accumulated in lecture are generated by clickers. If you do not bring your clicker, no points will be recorded for your participation/ . Clicker info at: http://www.valdosta.edu/academics/elearning/documents/nxt-student-response-guide.pdf Assistance for clicker problems is available in the eLearning office (behind the help desk) in the Odum Library.

Additional Course Materials on the WWW: http://www.valdosta.edu/~rgoddard/ or the BlazeView D2L Course Page.

Final grades will be based on a percentage of your cumulative points relative to the total points possible:

Lecture Exams:	300 pts
Lecture Clicker Grade	100 pts (dropped)
Learning Curve Grade	100 pts
Cumulative Final Exam (mandatory)	100 pts
Laboratory (mandatory):	150 pts
Total:	650 pts

Guaranteed grade distribution is as follows:

A = 90-100% (585-650 points)
B = 80-89.9% (520-584 ")
C = 70-79.9% (455-519 ")
D = 60-69.9% (390-454 ")
F = ≤ 59.9% (< 389 points)

Notes on grading philosophy: 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 the professor any problems regarding course information, as they arise. Advice for students on studying is provided at the URL: http://www.valdosta.edu/~rgoddard/Study.htm

MAKE-UP EXAMS: The exam schedule is posted below. TD .(e)1.8(i)3.5(s)1.1(u)-1.9(l)3.5(8(e -.0003 Tc -.0042 %p)4.1(oe

TENTATIVE COURSE LECTURE MATERIAL OUTLINE:

Lecture #	Date:	Topic:	Text Readings (pgs):	Learning Curve Assignment	Tentative Due Date:
1	14 Jan.	Introduction, What is science? What is Biology?	1-19	Chapt. 1	1/21/14
		Additional Reading: Genomes: 352-353; Evolution: 427-430, 432-436, 438-440; Phylogeny: 449-451, 454-456; Species concept: 468-474; Biological Nomenclature: 462-464.			
2	16 Jan.	What is Biology: Unifying principles of life			
3	21 Jan.	Characterization of Life, Evolution and Diversity			
		Additional Reading: Earth history: 503-522; Domain structure: 526-527; Endosymbiosis: 550-5552; Ecology: 1121-1122			
4	23 Jan.	Small Molecules and the Chemistry of Life	21-38	Chapt. 2	1/23/14
5	28 Jan.	Proteins, Carbohydrates, and Lipids	39-61	Chapt. 3	1/28/14
6	30 Jan.	Nucleic Acids and the Origin of Life	62-75	Chapt. 4	1/30/14
7	4 Feb.	Cell Structure & Function	77-101	Chapt. 5	2/6/14
8	6 Feb.	(cont'd)			
9	11 Feb.	Origin of Eukaryotic cells	101-102		
10	13 Feb.	Exam 1			
11	18 Feb.	Biological Membranes; Osmosis, Diffusion, Water Potential, and Transport mechanisms; Water, pH	105-122	Chapt. 6	2/18/14
12	20 Feb.				
13	25 Feb.	Cell Communication	125-141	Chapt. 7	2/25/14
14	27 Feb.	Basic Metabolism: Energy, Enzymes; Biochemistry	144-162	Chapt. 8	2/27/14
15	4 Mar.	(cont'd)			
	6 Mar.	Midterm; Last day to drop without penalty			
16	6 Mar.	Cellular Respiration	165-182	Chapt. 9	3/6/14
17	11 Mar.	(cont'd)			
18	13 Mar.	Photosynthesis	185-202	Chapt. 10	3/13/14
	18 Mar.	Spring Break, no class			
	20 Mar.	Spring Break, no class			
19	25 Mar.	Photos0 5.0779 Tc 0 Tw [(12c .00025-2)-10852.51			

VSU administration has required that certain elements be included in all class syllabi. One of these requirements is that relevant course learning outcomes must be linked to the VSU General Educational Outcomes at http://www.valdosta.edu/gec/documents/mxGenEdoutcomestocorecourses.pdf and to the Biology Department educational outcomes listed on page 131 of the current undergraduate catalog (2012-13). Students should be aware that the Biology department learning outcomes are extremely general and a more appropriate detailed outline of the learning outcomes we expect are represented by the ETS Biology Major Fields Test that we require seniors to complete and pass with a minimally acceptable score before graduating (see http://www.ets.org/mft/about/content/biology).

VSU General Education Outcomes (lined out outcomes are not expected for this course)

1. ~~*Students will demonstrate understanding of the society of the United States and its ideals. They will possess the requisite knowledge of the society of the United States, its ideals, and its functions to enable them to become informed and responsible citizens. They will understand the connections between the individual and society and the roles of social institutions. They will understand the structure and operational principles of the United States government and economic system. They will understand United States history and both the historical and present role of the United States in the world.~~
2. ~~*Students will demonstrate cross-cultural perspectives and knowledge of other societies. They will possess sufficient knowledge of various aspects of another culture, including the language, social and religious customs~~, aesthetic

Biology Department Educational Outcomes (as outlined in the Undergraduate catalog; http://www.valdosta.edu/catalog/1011/ugrad/documents/ug116-131.pdf

The program of study in the Department of Biology has numerous desired outcomes. Examples of these outcomes include the following:

1.