

BIOL 1107K, Principles of Biology I
Summer Semester II, 2011 **Section A & B**

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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. 2011. Life: The Science of Biology. 9th edition. Sinauer Associates Inc., Sunderland, MA and W.H. Freeman & Co. Gordonsville, VA.

Laboratory Manual: Goddard, R.H. 2010. Methods and Investigations in Basic Biology, 4th ed. Hayden-McNeil Publishing, Plymouth, MI

“Clickers”: Each student is required to obtain a Turning Technologies NXT (or XR) 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 have your clicker, no points will be recorded for your participation @.

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

General Objectives: This course provides an introduction to basic principles of biology. Information presented in this class includes an emphasis on topics encompassing cell structure and function, metabolism, cell reproduction, gene
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aligned with Department and University learning objectives (listed at the end of this syllabus) include BIOL objectives
1 through 5 and VSU objectives 3-5 and 7-8.

Attendance:

Biology 1107 course syllabus

BlazeView. Some resources will be made available through BlazeView. To access BlazeView, select the link from the Valdosta State University homepage or go directly to the following address.

<http://blazeview.valdosta.edu/webct/entryPageIns.dowebct>

Students experiencing difficulties using BlazeView should seek assistance through the VSU Microcomputing & System Services HELP-Desk located in Odum Library (telephone 245-4357).

Mid-term, or in-progress grades: The instructor is required to submit in-progress grades prior to midterm (7/1/10) for students to have feedback on their classroom progress by midterm. For the in-progress grade, your current lecture pop-quiz grade, exam 1 and current lab grade will be averaged to determine a grade. Because the grading procedure in this course is designed to allow students to recover from initial failures (e.g. one major exam grade is dropped), all students at midterm

Biology 1107 course

LABORATORY EXERCISES

Tentative Schedule of Labs

Lab	Date:	Topic:
1	9 June	General Laboratory Introduction Exercise 1: "The Black Box"- Scientific Method
2	14 June	Exercise 2: Basic Light Microscope Operation and Microscope checkout: Use of the Light Microscope
3	16 June	Exercise 3: Light Microscopy Observations of cells and organisms Exercise 5: Group Microscopy Project: Proposal Discussion & set-up Group Proposal (end of class)
4	21 June	Exercise 4 Cont'd: Independent Microscopy Projects: Distribution of microscopic flora and fauna; Data collection lab

VSU administration has required that certain elements be included in all class syllabi. One of these requirements is that

Biology Department Educational Outcomes (as outlined in the Undergraduate catalog)

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

1. Develop and test hypotheses, analyze data, and present the results and conclusions in both written and oral formats corresponding to those used in peer-reviewed journals and at scientific meetings.
2. Describe the evolutionary processes responsible for biological diversity, explain the phylogenetic relationships between the major 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, functioning and reproduction of living organisms.
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.

For a more complete outline of desired biological outcomes assessed by the biology department, students are encouraged to visit the Major Field Test in Biology content page (address below). The Major Field Test is a required test of all seniors in biology.

See: http://www.ets.org/Media/Tests/MFT/pdf/mft_testdesc_biology_4bmf.pdf