

BIOL 1107K: Principles of Biology I
Summer II Semester 2022, 3 Credit hours (weekly: 3 hr lecture)
Department of Biology, College of Science & Math, Valdosta State University

Lecture (BC 1023): T & R 2:20 p.m. – 5:20 p.m.
Laboratory (BC 1083): Section B (CRN #50526): M & W / 2:30 p.m. - 5:20 p.m.

Instructor: Dr. Brian C. Ring

Office: BC 2084

Office hours: T & R 12:00 p.m. – 2:00 p.m. (before lecture or by appointment)

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email: bcring@valdosta.edu (**please use D2L first**)

Pre-Requisites: None. Note this course is for science majors.

Co-Requisites: BIOL 1107 Laboratory. BIOL 1100, Biology Freshmen Seminar for Biology Majors.

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.

Course Objectives: Upon completion of this course the student should be able to:

- 1) Exhibit a broad perspective on the principles unifying various biological disciplines from evolution to molecular biology (DBEO 2 & 5);
- 2) Understand basic biological chemistry from elements to organic compounds to macromolecules;
- 3) Comprehend basic principles of biology at the cellular level to include structure, function, metabolism, communication, reproduction, molecular biology, and gene expression (DBEO 3 & 4);
- 4) Perform, analyze, interpret, and report laboratory experiments (DBEO 1);
- 5) Develop and test a hypothesis using experimental microscopy and quantitative skills acquired in the laboratory (DBEO 1 & 5).

These objectives support the Department of Biology Educational Outcomes # 1-5 listed above (DBEO 1-5) and the University General Educational Outcomes # 5 as listed in the VSU Undergraduate Catalogue.

Required Materials:

Text: We will be using a textbook provided by OpenStax, a 501(c)(3) nonprofit charitable corporation associated with Rice University in Texas. The goal of this organization is to make higher education accessible to all students. To achieve this goal, they provide textbooks that are completely free online, or they provide low cost print versions of the textbook through the student bookstore or Amazon.com. You should choose any ONE of the options below.

A. Free version:

BIOL 1107K course syllabus: Page 2

and averaged. Lecture Exam 4 will be taken during the allotted Final Exam time specified for summer session II (see below). **There are NO MAKEUP EXAMS.** At the instructor's discretion, the lowest exam grade may be dropped.

Online Achieve Assignments: (15%) Weekly assignments covering the OpenStax textbook material will be

