

BIOL 3200, Introductory Genetics
Fall Semester 2011, Section A (CRN# 81624, 3 Credit hours)
Department of Biology, College of Arts & Science, Valdosta State University

Lecture (BC 3009): T & R 9:30 a.m. – 10:45 a.m.

Instructor: Dr. Brian C. Ring
Office: BC 2092
Office hours: **M & W** 11:00 a.m. – 12:00 p.m. or by appointment.
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Graduate Assistant: Brittany McKinney
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Pre-Requisites: MATH 1113, BIOL 1107, and 1108 or permission of instructor.

Course Description: A survey of modern genetics including Mendelian modes of heredity; extensions and variations on Mendelian genetics; chromosomal inheritance and variation; molecular properties of genes; plus basic quantification of genetic diversity at the population level.

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

- 1) Comprehend the basic terminology & principles of modern Mendelian Transmission Genetics from cellular meiosis to phenotype in the organism and relatedness to other sub-fields of genetics: Molecular & Population (**BO2, BO3, & GE4, & GE7**);
- 2) Extend upon basic Mendelian principles the understanding of chromosomal inheritance and how genes are

Required Materials:

- 1) Benjamin A. Pierce. *Genetics Essentials: Concepts & Connections*. 2010. 1st Ed. W.H. Freeman & Company. ISBN-13 # 978-1-4292-3040-7
- 2) Jung H. Choi & Mark E. McCallum. *Solutions & Problem-Solving Manual for Genetics Essentials: Concepts & Connections*. 2010. 1st Ed. W.H. Freeman & Company. ISBN-13 # 978-1-4292-4728-3
- 3) Response Card NXT Clicker (Turning Technologies), ISBN# 9781934931455

Optional Materials:

The Talking Glossary of Genetics @ the National Human Genome Research Institute (NIH):
<http://www.genome.gov/Glossary>

Graded Course Components: Your final grade will be based on your performance and participation on lecture exams, three homework problem sets, clicker based participation, and optional final exam (see grade calculation & distribution below).

Three Lecture Exams & Final (each 20%, up to 80%): Students will be tested on their comprehension or application of **1)** lecture/reading material, **2)** listed textbook chapter: comprehension, application & challenge questions, and **3)** assigned homework problem sets on each exam

TENTATIVE LECTURE & HOMEWORK OUTLINE: