

General Biology Summer 2009

BI110-01

BI112-01

Tentative Syllabus

Dr. Linda Tanini

tanini@bc.edu

617-784-8264 (leave a message and I will get back to you)

Office hours- MTWR 8:00-8:30; or by appointment

June 29-July 16 M T W TH, 8:30 to 11:30

July 20-Aug 6, M T W TH, 8:30 to 11:30

This is a tentative syllabus intended to cover both semesters of General Biology for the Summer of 2009. In general, this course will be designed to give an overview of the field of biology and to provide a sufficient basis for those who wish to go on in the field to take advanced courses. We will be covering such wide ranging topics as the molecular basis for life, cellular function and organization, tissue and organ systems, plant and animal physiology, evolution and the history of life on Earth, taxonomy, the fundamentals of genetics, ecology, and animal behavior. There is a lab for this course, but it is not required (BI 11101/ BI11301). You need to register for the lab to receive credit for the lab.

How to succeed in this course

This class contains a great deal of material to get through in a short period of time and we will move at a rapid rate, covering about two text chapters per day and a lab (for those taking the lab). This makes it a VERY difficult course. You are required to do a majority of the work yourself and assess yourself honestly about your understanding of the material. It is recommended that you read the material for the class lecture and ask questions that you may have had during lecture. In addition, while reading, form a "conversation with the text." Periodically, stop to summarize the passage, ask questions, determine what the author wants you to learn, and explore the figures in relation to the text. After lecture, re-read the section to help organize your thoughts. Spending a great deal of time outside of class learning the material will be beneficial to your success.

Grading and Exam policy

Each semester will last three weeks during which there will be two exams and a final. The exams will be administered in the first half of the class and lecture discussion will occur after the exam. Each exam will be worth 30% of the class grade. The cumulative final will be worth 40% of the class grade. **If you cannot make any exam because of an emergency or conflict, I must be contacted before you miss the exam (via email, phone or in person). If I am not contacted, then you will receive a 0 for the exam. A note from the dean or doctor may be required. Missed exams are to be made up within 24 hours unless there is a valid excuse from the dean or doctor.**

All of this information is subject to change and revision over the next few weeks, but changes will be minor and I will inform you all changes. If you have any specific questions you may feel free to contact me at tanini@bc.edu. Additionally, I will be holding office hours. You can also call me at 617-784-8264, but leave a message and I will return your phone call.

Text: Biology Concepts and Connections 6th ed. Campbell, Reese, Taylor, Simon, Dickey

First semester

Day	Date	Subject	Chapters	Lab
Mon	6/29	Atoms and molecules of life	2, 3	Properties of water
Tue	6/30	Cell structure & function	4, 5	Microscopy
Wed	7/1	Respiration & photosynthesis	6, 7	Photosynthesis
Thu	7/2	Exam 1 Mitosis & Meiosis	8	Mitosis and meiosis
Mon	7/6	DNA & Gene expression	10, 11	Digest DNA
Tue	7/7	Inheritance and DNA techniques (case study: Royal Disease)	9, 12	Gel electrophoresis
Wed	7/8	Evolution	13	Population genetics
Thur	7/9	Exam 2 Speciation (case study: Clover Leaf)	14	Cladistics
Mon	7/13	Tracing evolution & Origin of Life	15, 16	Gram Staining
Tue	7/14	Animal & Plant evolution	18, 17	Field trip to MCZ
Wed	7/15	Vertebrate Evolution & Animal form	19, 20	Skeleton Observation
Thur	7/16	Final exam		Lab Practical

Second semester

Day	Date	Subject	Chapters	Lab
Mon	7/20	Nervous system & Senses	28, 29	Reflexes & senses
Tue	7/21	Muscle contraction & homeostasis	30, 25	Homeostasis
Wed	7/22	Circulation & respiration	23, 22	Blood Pressure Lab
Thu	7/23	Exam 1 Nutrition & Digestion	21	Amylase Digestion
Mon	7/26	Endocrine & Immune systems	26, 24	Elisa assay
Tue	7/27	Reproduction in animals	27	Using a key
Wed	7/28	Reprod. of Plants & Plant biology	31, 32	Transpiration
Thu	7/29	Exam 2 Control System in Plants	33	Flower Identification
Mon	8/3	Ecosystem structure & Dynamics	36	Community ecology
Tue	8/4	Population ecology & the biosphere Paved paradise; jigsaw	34, 35	Field observations
Wed	8/5	Animal behavior & conservation Food web activity; Asian carp video	37, 38	Field observations
Thu	8/6	Final exam		Practical