

General Biology II: Organisms and Populations

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Bard High School Early College

Spring 2008

Text: *Biology* 6th edition, Campbell, N.A. and Reece, J.B.

Below is a tentative schedule of course and laboratory topics to be covered throughout the semester. This schedule, as well as assignment/exam point values, is subject to change. Students will be informed of any changes 2-3 weeks in advance.

<u>WEEK</u>	<u>LABORATORY TOPICS</u>	<u>CLASS TOPICS</u>	<u>TEXT PGS.</u>
1	Introduction to Lab Protocols; phenetic vs. cladistic methods of classification	Levels/networks of biological organization; How do we study and classify life?	1-16; 492-503
2	Hardy-Weinberg Theorem; Natural Selection & changes in allele frequencies	Natural selection Food networks; Evolutionary arms races	428-438; 458-461 1092-1095; 1174-1183
3	Models of Speciation	Ecological generalists vs. specialists; niche occupation and expansion	
4	Flowering plant reproductive morphology	Coevolution	611-612
5	Pollination (Part I)	Patterns of flowering plant evolution	606-613;
6	Alternation of Generations; Mitosis; Meiosis	Mitosis: Gametogenesis; Modes of asexual vs. sexual reproduction	217-223; 235-245; 794-797; 975-976;
7	Lab Practical I		

8	Life Cycle of <i>Puccinia</i>	Host/Parasite interactions	540; 1180; 629-670
9	Measures of Variation Diversity vs. Disparity	Patterns of macroevolutionary change; Cambrian explosion; Hox genes and EvoDevo	642-644 417-418; 479-480;634; 643-644; 671-672
10	Metamorphosis	Animal development	998-1019 692;666-670
11	Sensory Physiology	Modes of cell signaling	1022-1039 995-960
12	Mammalian Anatomy; Cat dissection		834-841
13	Mammalian Anatomy; Cat dissection		
14	Pollination (Part II)	Social behaviors; group selection; kin selection	1137-1148
15	Lab Practical II		

Total possible points that may be earned: 330. (Note: among the exams and lab practicals, the lowest 100 points for each student will be dropped at the end of the semester).

- 2 Exams 100 points each
- 2 Lab practicals 50 points each
- 2 Lab reports 25 points each
- 1 Reading project 50 points
- 2 Quizzes 15 points each
- 8 Homework assignments/Problem sets 10 pts each

Exam, quiz and assignment schedules TBA

Textbook reading will be supplemented by various WWW publications and activities. (url's TBA).