

BIOLOGY 126, ORGANISMIC BIOLOGY, SPRING 2004 – DR. KATHY SHEA

Date	Topic	Readings
Feb 9-M	Introduction to Course	Ch 1
Feb 11-W	Hardy Weinberg Genetic Equilibrium	Ch 23 (445-449)
Feb 13-F	History of Evolutionary Thought	Ch. 22
Feb 16-M	History of Evolutionary Thought	Ch 22
Feb 18-W	Genetic Variation and Microevolution	Ch 23 (450-457)
Feb 20-F	Natural Selection I	Ch 23 (457-461)
Feb 23-M	Natural Selection II	above & pp. 426-427
Feb 25-W	What is a Species?	Ch 24 (464-468)
Feb 27-F	How Speciation Occurs	Ch 24 (468-476)
Mar 1-M	Introduction to Evolutionary Trends	Ch 24 (476-81)
Mar 3-W	Exam 1	
Mar 5-F	Classifying and Organizing Biodiversity	Ch 25
Mar 8-M	Origin of Life on Earth	Ch 26
Mar 10-W	Prokaryotes I	Ch 27
Mar 12-F	Prokaryotes II	Ch 27
Mar 15-M	Protists I	Ch 28
Mar 17-W	Protists II	Ch 28
Mar 19-F	Protists III	Ch 28
Mar 22-26	<i>Spring Break</i>	
Mar 29-M	Fungi I	Ch 31 (616-619, 628-631)
Mar 31-W	Fungi II	Ch 31 (619-628)
Apr 2-F	Exam 2	
Apr 5-M	Trends in Plant Evolution	Ch 29 (575-584)
Apr 7-W	Bryophytes and Seedless Vascular Plants	Ch 29 (585-594)
Apr 9-F	Seed Plants (Gymnosperms)	Ch 30 (597-605)
Apr 12-M	Seed Plants (Angiosperms)	Ch 30 (606-613)
Apr 14-W	Seed Plants (Angiosperms)	Ch 30 (606-613)
Apr 16-F	<i>Easter Break</i>	
Apr 19-M	Plant Review	
Apr 21-W	Introduction to Animals	Ch 32
Apr 23-F	Invertebrate Animals I - Parazoa, Radiata	Ch 33 (646-651)
Apr 26-M	Invertebrate Animals II -	Ch 33 (651-661)
Apr 28-W	Exam 3	
Apr 30-F	Invertebrate Animals III	Ch 33 (661-672)
May 3-M	Intro to Chordates	Ch 33(672-675) Ch34 (678-82)
May 5-W	Vertebrate Animals 1 - Jawless Vertebrates	Ch 34
May 7-F	Vertebrate Animals II - Fish, Amphibians	Ch 34
May 10-M	Vertebrate Animals III - Reptiles, Birds	Ch 34
May 12-W	Vertebrate Animals IV - Mammals	Ch 34
May 14-F	Vertebrate Animals VI - Primates	Ch 34
May 17-M	Vertebrate Animals VII - <i>Homo sapiens</i>	Ch 34
May 20-Th	Final Exam, 9:00-11:00 a.m.	

Dr. Kathy Shea
Organismic Biology 126 Syllabus
Spring 2004

Office: SC 256
Phone: 646-3396
Email: sheak@stolaf.edu

Office Hours: Monday 3:00-4:00, Wednesday 2:00-3:00, Thursday 2:00-3:00,
Or by appointment

Meeting Times/Places:

Lecture, Sections DEF meet MWF 10:45-11:40, SC 278
Lab Section D - T 8:00 – 10:30, SC 273
Lab Section E - T 11:45-2:15, SC 273
Lab Section F - W 3:00-5:30, SC 273

Overview:

Welcome to Organismic Biology! This is a course in biodiversity and evolution. We will take a detailed look at the diversity of life on earth and its history. We will study how organisms have interacted with their environment (ecology) and have undergone genetic changes over time, resulting in various forms and functions (evolution). During the first third of the course we will focus on evolution and natural selection. These concepts will help us understand the changes and variation that we see as we survey the major groups of organisms in the rest of the course.

Specific objectives are

1. To gain an overview of the biodiversity on earth and its importance
2. To understand mechanisms and patterns of evolution
3. To understand interrelationships among living organisms through comparisons of their forms and functions
4. To gain experience in the process of scientific inquiry.

This material is essential to people interested in careers in or related to biology. I hope that over the semester you will come to realize the importance of biodiversity, not just to human life but also to the survival of the planet Earth as we know it.

A civilization able to envision God and to embark on the colonization of space will surely find the way to save the integrity of this planet and the magnificent life it harbors. E. O. Wilson
(The Future of Life, 2002)

Texts and Readings:

Campbell, N.A. and J.B. Reece. 2002. Biology. 6th Edition. Benjamin/Cummings, San Francisco, CA
Pechenik, J.A. 2004. A short guide to writing about biology. 5th Edition. Pearson Longman, New York.
Biology 126 Laboratory Manual – Biology Department

Communication:

Good communication is an important part of learning. You are encouraged to ask questions. If you have questions, chances are someone else does too. Please let me know if you have concerns or something is not clear. You will be able to get in touch with me through email, phone calls or personally. Sometimes I will need to contact you by emailing the course alias to tell you about a schedule change or an assignment. Be sure to check your email regularly. I will post the syllabus and other pertinent material on the class web page: <http://www.stolaf.edu/people/sheak/classes/index.html#organ> There will also be information on the Classes on Brit Server. I will put PowerPoint files in the Class Materials folder for Biology 126. The file for a particular day may not be there until just after class.

Policies:

Attendance is an important part of your success in any course. It will help you to hear the material presented in a different way than in your textbook and to know what material should be the focus of your studying. In-class assignments, such as discussions in lecture or lab, generally cannot be made up and points will be lost if you are gone. If you must miss an exam for an officially sanctioned reason (college event or illness) notify me in advance so arrangements can be made to make it up. You must provide appropriate documentation from a coach/supervisor, the Dean of Students or a medical clinic. Attendance in laboratory is mandatory; unexcused absences from lab will result in point deductions.

Turn in assignments on time. In most cases this means during the class/lab time on the due date. Late assignments will incur a penalty of 5% per day that they are late.

Adherence to academic honesty is expected in all assignments.

Enrolling in this class means that you understand and agree to the terms of the syllabus. The schedule and activities are to the best of my knowledge as listed. However, there may be changes depending on how we move through the material.

Advice:

In this course you will need to learn important concepts as well as memorize a lot of names, terms. Practice your understanding of the concepts through self-quizzes (online and in the text) and through discussion with classmates and/or with me. Work on memorization skills by trying techniques like rewriting/reorganizing information and developing and using mnemonic devices. It may also be helpful to trade notes with friends to see what others wrote down as important.

This is a large class – 70 or so in my three sections. I want to get to know each of you, but this will take effort on your part as well as mine. Please take advantage of office hours and other times to introduce yourselves and to talk with me. I will be glad to clarify concepts and/or to work with you on study skills.

Learning Disabilities:

If you have a documented disability that will affect your work in this class, please contact me to discuss your needs. Also you will need to register with the Student Disability Services located in the Academic Support Center in Room 1 of the Old Main Annex. All such discussions will be confidential.

Grading:

Your grade in this course is determined by the number of points that you earn, based on the breakdown given below. You can calculate your current grade at any time in the course by dividing the number of points you have earned, by the number of possible points. Academic honesty is expected in all assignments.

Exams: There will be three exams given during the lecture period. They will focus on material immediately preceding the exam from lecture and related material from lab. The final exam will focus on the last fourth of the course and will be partly cumulative.

Laboratory: Your lab grade is worth 30% (150 points) of the total grade and consists of a variety of assignments including a lab report, lab notebook, quiz, poster presentation and participation.

Participation points: Participation points will be earned for discussions, homework, and general class/lab participation. You are expected to contribute to discussions in the class or lab as a whole and in smaller groups. In class and lab we will have some small group discussions during which each group discusses questions and hands in one set of answers. There will also be occasional homework assignments. Final participation points will be determined at the end of the semester. Deductions will be made for excessive unexcused absences from lecture and/or lab and inappropriate behavior.

Three exams (60 pts. each)	180 points
Quizzes (10 pts. each)	30 points
Final exam	90 points
Laboratory	150 points
Participation	<u>50 points</u>
Total	500 points

I have the following approximate grade cutoffs for A, B, C, and D, respectively: 90%, 80%, 70%, and 60%. A plus or minus on a grade will depend on the final class score distribution.