

BIOLOGY 201B SPRING 2005
LECTURE SCHEDULE
 <<http://blackboard.sdsu.edu>>

Objectives: The objective of this course is to provide basic knowledge regarding the evolution and diversity of life. Evolution is the underlying theme with emphasis placed on presenting diversity within a phylogenetic framework. General principles of biology are covered, as well as comparative structure, physiology, nutrition, circulation, gas exchange, reproduction, and development, including major evolutionary trends.

Student Learning Outcomes: After completing the course, students should be able to:

- 1) Explain the phylogenetic relationships and the structural and reproductive features of the major groups of life.
- 2) Recite the major biological processes and systems.
- 3) Summarize the significant ecological relationships of life.
- 4) Understand the nature of scientific research, which we instructors will attempt to do by giving short presentations on our research programs (at the end of our sections).

Students will be assessed for the above skills by written exams, possible quizzes, and (in the laboratory) practicals and other assignments (to be discussed in lab).

Lecture Expectations: Much of the material covered in the lecture is also covered in the text (see lecture outline). However, for some topics, we will go into more detail or cover material not covered in the text. Thus, it is important for you to attend all lectures. Please arrive on time for class, 12:00 noon, and stay for the full period of the class, until 12:50 pm. Please do not talk during lectures (except, of course, for asking/answering questions of the instructor); talking is disruptive to instructors and to the students nearby. If you must leave before the conclusion of the lecture, please do so quietly.

Week of:	Lecture Topic	Text Reading*	Lab Topic
1/24	M Introduction to Evolution; Phylogenies	Ch. 1, 25	Lab 1: Evol & Syst
	W Mechanisms of Evolution	Ch. 23:460-463,467-478; Ch.24	
	F Mechanisms of Evolution; Species & Speciation	Ch. 23:460-463,467-478; Ch.24	
1/31	M Bacteria & Archaea	Ch. 27; Ch. 4:61-66	Lab 2: + Lab 3: "Basal Euk" & Alveol
	W Evolution of Eukaryotes, Alveolates	Ch. 28:543-555, Ch. 4:66-84, [Review Ch. 9:164-175]	
	F Stramenopiles, Reds, & other basal Eukaryotes	Ch. 28:556-560, 564-567 [Review Ch. 9:175-185]	
2/7	M Fungi	Ch. 31:603-608	Lab 3: Stram/Reds + Lab 8: Fungi
	W Fungi	Ch. 31:608-617	
	F Green Plants, Land Plants	Ch. 28:560-564, Ch. 29:570-578	
2/14	M Vascular Plants	Ch. 29:578-586; Ch. 35	Lab 4: Green Pls + Lab 5: Vasc Pls
	W Vascular Plants, Transport in Plants	Ch. 36; Ch. 37	
	F Seed Plants	Ch. 30:588-592; Ch. 37	
2/21	M Plant Growth Regulation	Ch. 38	Lab #5: Vasc Pls + Lab #6 Seed Plants
	W Flowering Plants, Plant Growth	Ch. 30:593-527; Ch. 39	
	F Research; Review		

2/28	M	Exam 1: 75 points		Lab #7: Fl. Plants
	W	Introduction to Animals: Phylogeny	619-622, 83-84, 93-94, 314,563	
	F	Introduction to Animals: Form & Function	62-63, 94-97, 780-784, 820-827, 391, 922-926, 985-991, 940-942, 914-915, 968-971, 867-868, 877-878	
3/7	M	Early Diverging Animals	622-628	Lab #9: Porifera, Cnidaria, & Basal Lophotrochozoans
	W	Triploblastic Animals	622-633, 989	
	F	Spiralian Lophotrochozoa – Nemertea, Annelida	633-636, 914, 941-942	
3/14	M	Spiralian Lophotrochozoa – Mollusca	636-639, 941	Lab #10: Molluscs and Annelids
	W	Introduction to Ecdysozoa	641-646	
	F	Arthropods I	646- 653, 914-915	
3/21	M	Arthropods II	867-868, 877-878, 803, 926, 990-991	Lab #11: Ecdysozoans
	W	Invertebrate Population & Community Ecology	Ch 54, 55	
	F	Invert Conservation & Research	Ch 57	
3/28	SPRING BREAK			
4/4	M	Deuterostome Animals	655-662	Lab #12: Echinodermata, Hemichordata, and Chordata
	W	Review of Invertebrates		
	F	Exam 2: 75 points		
4/11	M	Origin & characteristics of vertebrates	660-662	Lab #13: Craniata: the "Fishes"
	W	Fishes	662-666, 872, 923-927	
	F	Amphibians & the new conquest of land	666-667,826, 873, 988, 991	
4/18	M	Amniota & the origin of the amniotic egg	667-670,943-944	Birch Aquarium field trip this week
	W	Vertebrate locomotion	903-921	
	F	Origin of birds and flight	433-434,670-672, 988, 992,	
4/25	M	Animal behavior	Ch. 52	Lab #14: Amphibia and Reptilia
	W	Mammals: origins and adaptations	672-673, 945-947, 968-969	
	F	Mammals: reproduction and thermal regulation	785-798, 827-843, 992-998	
5/2	M	Animal hormones & vert. endocrine systems	800-819	Lab #15: Mammalia
	W	Human evolution	673-678	
	F	Human Impacts on Ecosystems & Fate of Planet	1039-1040,1052,1059, 1114-1115	
5/9	M	Finish lectures; Research		San Diego Zoo field trip this week
	W	Exam 3: 75 points		
5/16	M	Final Exam: 45 points (10:30-12:30)	Course Evaluations	

* Text: Purves, et al., **Life, The Science of Biology**, 7th ed., Sinauer/Freeman, 2003.

Instructors: This class is team-taught to provide expertise in the areas of: 1) microbes, basal eukaryotes, fungi, "algae," and plants; 2) invertebrate animals; and 3) vertebrate animals. Dr. Simpson will coordinate the class and is responsible for all administrative duties, including the assignment of class grades.

Required Printed Materials:

Life: The Science of Biology (7th edition) by Purves et al., Sinauer Assoc, Sunderland, MA, 2003. - Available at Aztec Bookstore and KB Books. Note: The study guide and outline are not recommended.

Laboratory Manual for Organismal Biology: an Evolutionary Approach (6th edition) by M. Simpson et al., 2004. - Available at KB books only.

Blackboard: We will be using this software in the course to give "iQuizzes", make supplements available, and contact you about course issues. After you register for the course, please access Blackboard <<http://blackboard.sdsu.edu>> and check for messages and content. Further information will be given in class.

Exams and Grading: Lecture exams count 75% and lab work counts 25% of your total grade. [Laboratory grading and procedures are discussed separately in the lab by your TA.] The lecture series is divided into three, roughly equal sections. For each section, 10 points are toward quizzes, which may be on Blackboard or in class. There will be three 50-minute exams, each worth 75 points, at the end of all three sections, and a final exam worth 45 points, for a grand total of 300 points for lecture (plus 100 points for lab). The final exam is comprehensive and will cover material equally from all three sections of the course. Lecture exams will include matching, multiple choice, fill-in, and short essay questions. Make-up exams will consist entirely of essay questions, and will be given for the first two exams only. You must contact the appropriate instructor no later than the day after the regular exam with a valid medical excuse to be accorded the privilege of taking a make-up. Keys will be posted after the exam. If you have questions about grading on exams, please check the posted answer key beforehand. If you wish to have grading reconsidered, you must re-submit your original exam and clearly and specifically state your case in writing (to the instructor who gave the exam) within 7 days of receiving your graded exam; anything later will not be considered for re-grading.

Letter grades will be assigned according to standard categories: A = 90-100%; B = 80-89.9%; C = 70-79.9%; D = 60-69.9%; F = <60%. The top and bottom 2-3% of each category might earn +/- grades depending on the class distributions.

You must attend both lecture and lab in order to obtain a grade in the course, except by explicit permission.

Failure to pass either the lecture or laboratory segment, regardless of your grade in the other part, will earn you an F for the course.

iQuizzes: Students are responsible for checking their iQuiz grades on Blackboard to ensure that these were recorded during the period of time that the iQuizzes are open. If any errors occur in recording your grade for an iQuiz, immediately contact the Blackboard help line (4-3189) or, as a last resort, your section instructor. Otherwise, you will forfeit the points.

Scantron Forms: You must bring one scantron form (#882ES) and a #2 pencil to each of the three lecture exams. The forms are available in the Aztec bookstore. For quizzes, please follow instructions from the professor teaching that section.

Laboratory: A syllabus with information about the lab will be handed out in labs.

Student Misconduct: We view cheating as a very serious matter. Any student caught cheating in this class, to whatever degree, will be reported to SDSU Judicial Procedures. At a minimum, the student will receive a "zero" on the particular exercise (exam, lab exercise, etc.)

Help: If you are having trouble in the course please see the instructor or your TA as soon as possible. The Advising Center and Counseling Services offer help with improving academic and test-taking skills.

To attempt to add course, if not enrolled: Go to the lab section you wish to add; attend and get on waiting list.

To attempt to change lab section, if enrolled: Go to the lab section for which you are currently enrolled; attend that lab; sign waiting list sheet for a change to another lab section.