

BIOLOGY 204 FALL 2009 LECTURE SYLLABUS

Waters/ Hedin/ Berta

MWF - NH 100, 12:00-12:50

<<http://blackboard.sdsu.edu>>

Course Objectives: This class will provide a basic introduction to the origins and diversity of life forms. 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 this 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. *Students will be assessed for the above skills by written exams and quizzes.*

Instructors: This class is team-taught to provide expertise in the areas of 1) evolution, microbes, basal eukaryotes, fungi, “algae” and plants (Dr. Waters), 2) invertebrate animals (Dr. Hedin), and 3) vertebrate animals (Dr. Berta). **Dr. Berta will coordinate the class and is responsible for all administrative duties (e.g., add/drop, discussion of course rules, etc.).** Questions regarding specifics of course content should be directed to the appropriate instructor. As noted below under **Final Grades**, questions regarding your final grade should be directed to **Dr. Hedin**.

<u>Instructors</u>	<u>Office</u>	<u>Office Hours</u>	<u>Phone</u>	<u>Email</u>
Dr. Elizabeth Waters	LS 208	Mon 1-2*	594-7036	ewaters@sciences.sdsu.edu
Dr. Marshal Hedin	LS 204F	Tues 11-1*	594-6230	mhedin@sciences.sdsu.edu
Dr. Annalisa Berta	LS 250	MW 10-11*	594-5392	aberta@sunstroke.sdsu.edu

*or by appointment

Required Printed Materials:

Biology (8th edition) by Campbell & Reece, Benjamin Cummings, New York, 2008 - available at Aztec Shops and KB books.

Lecture Expectations: Much of the material covered in lecture is also covered in the text (see lecture schedule), but most lectures will offer greater detail or cover material not in the text. Thus, please try to attend all lectures. Read the assigned material prior to class, as this will make lectures much easier to follow and fully comprehend. Do not talk or use cell phones during lectures- this is disruptive and discourteous to everyone else. Turn off cell phones and pagers during class. If you must leave before the conclusion of lecture, please do so quietly.

Blackboard: We will be using this online software system to make supplements available, report grades, and contact you about various 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 provided in class.

Exams and Grading: Lecture exams and quizzes together are worth **250 points**, divided as follows:

Lecture Block #1 (Dr. Waters) – one scheduled quiz (**20 points**); one 50-minute exam (**60 points**).

Lecture Block #2 (Dr. Hedin) - one scheduled quiz (**10 points**) to be announced in class at least two lectures before the quiz; one 50-minute exam (**65 points**).

Lecture Block #3 (Dr. Berta) – one scheduled quiz (**10 points**) to be announced in class at least one lecture before the quiz, but it will not be posted on Blackboard; a comprehensive final exam (worth **85 points** => 65 from the last third of the course, 10 from the first two-thirds, and 10 from the second two-thirds).

Lecture exams will include matching, multiple choice, fill-in, and/or 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 considered for taking a make-up exam. Answer keys will be posted after the exam on Blackboard. If you have questions about grading, 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. **No electronic devices (incl. iPods, CD players, calculators, etc.) may be used or worn during any exam!**

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 class distributions.

Final Grades: Assignment of final course grades will be a joint decision by all three professors. However, questions concerning your final grade should be directed to **Dr. Hedin**.

iQuizzes: iQuizzes may be available on Blackboard only for a specified time period determined by your instructor. Students are responsible for checking their iQuiz grades to ensure that these were recorded properly during the period of time that a particular iQuiz was open. If any errors occur in recording your grade for an iQuiz, immediately contact the Blackboard help line (594-3189) or, as a last resort, your section instructor. Otherwise, you will forfeit the points. One hint: Be sure to click the "Submit" button when finished (not "Save;" clicking the latter will lock you into "in progress"). If you go back to the iQuiz, you must completely re-take it again.

Scantron Forms: You must bring one scantron form (#882ES) and a #2 pencil to each of the three lecture exams unless otherwise instructed by the professor in charge. Aztec and KB bookstores have these forms. For quizzes, please follow instructions from the professor for that section.

Student Misconduct: We have a zero-tolerance policy for cheating of any sort. 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 as soon as possible. Attend office hours if necessary – these are provided for you to ask questions. The Advising Center and Counseling Services offer help with improving academic and test-taking skills.

State Budget Cuts Cause Faculty Furloughs

The devastating California state budget cuts prohibit faculty and staff at SDSU from working on two days per month during the 2009/10 academic year.

The faculty furlough prohibits faculty members from teaching, being on campus, doing research, and consulting with students on two days per month. Faculty furlough days vary from faculty to faculty. Biology 204 faculty furlough days are: September 25, October 23, and November 25. On those days, lectures and office hours are cancelled and telephone and e-mail messages will not be answered.

NOTE: These furlough days not impact Labs. If you have a lab on one of the days that lecture is cancelled you must attend lab.

The staff furlough causes most University, College, and Department Offices to close on the following days: Sept 11, 18; Oct 2, 16; Nov 13, 25; Dec 21, 22, 23, 24.

To avoid faculty and staff furloughs at SDSU in the future, you may want to contact your legislators in Sacramento so that they better understand how cutting the state budget for higher education affects your education and your future.

LECTURE SCHEDULE – FALL 2009

Waters/ Hedin/ Berta

Evolution – 3 lectures

Prokaryotes, Fungi, basal Euk, Plants – 12 lectures

Invert Animals - 12 lectures

Chordates – 11 lectures

Week of:	Lecture Topic	Text Reading*
8/31	M Introduction to Evolution: Phylogenies	Ch 1: 12-18; 534-535; Ch 26
	W Mechanisms of Evolution I	Ch 22
	F Mechanisms of Evolution II	Ch 23 and 450-451
9/7	M Labor Day- NO CLASS	
	W Mechanisms of Evolution III	Ch 24
	F Bacteria & Archaea	Ch 27
9 /14	M Evolution of Eukaryotes, Protists pt. one	Ch 25: 514-519; Ch 28: 549-558
	W Evolution of Eukaryotes, Protists pt. two	Ch 28: 558-572
	F Fungi (Quiz 20 points)	Ch 31
9 /21	M Fungi (continued)	Ch. 31:
	W Green Plants	Ch 29: 600-610
	F NO CLASS	
9 /28	M Vascular Plants	Ch 29: 610-617
	W Seed Plants	Ch 30: 618-625
	F Flowering Plants	Ch 30:625-635; Ch 38: 801-808
10/05	M Plant Growth	Ch 35
	W Exam 1: 60 points	
	F Introduction to Animals	Ch 6: 119-121; Ch 25: 517-519; Ch 32
10/12	M Invert Animal Diversity I (Porifera, Cnidaria,)	Ch 33: intro, Concepts 33.1, 33.2
	W Invert Animal Diversity II (Bilateria)	Ch 32, Ch 33: Concept 33.2
	F Invert Animal Diversity III (Lophotrochozoa)	Ch 33: Concept 33.3
10/19	M Invert Animal Diversity IV (Ecdysozoa)	Ch 33: Concept 33.4

	W	Invert Animal Diversity V (more Ecdysozoa))	Ch 33: Concept 33.4
	F	NO CLASS	
10/26	M	Invert Animal Reproduction (Quiz: 10 points)	Ch 46: 997-1003
	W	Invert Animal Development, Form and Function	Ch 18: Concept 18.4, Ch 40: 852, 855; Ch 47:1021-1030
	F	Invert Animal Feeding / Circulation	Ch 41: 875-883; Ch 42: 898-900
11/02	M	Invert Animal Respiration / Excretion	Ch 42: 915-919; Ch 44: 954-962
	W	Why Invertebrates Animals are Important to Humans	
	F	Exam 2: 65 points	
11/9	M	Origin & characteristics of vertebrates	Ch 34: 698-705
	W	Veteran's Day – NO CLASS	
	F	Fishes	Ch 34: 705-710; Ch 42: 901, 917-919
11/16	M	Amphibians & the new conquest of land	Ch 34: 710-713; Ch 44: 959-960, Ch 46: 1000-1001
	W	Amniota & the origin of the amniotic egg	Ch 34: 713-718; Ch 40: 860, Ch 42: 902; Ch 47: 1033
	F	Vertebrate development	Ch 47: 1024-1044
11/23	M	Vertebrate locomotion (Quiz: 10 points)	Ch 50: 1105-1110
	W	THANKSGIVING- NO CLASS	
	F	THANKSGIVING- NO CLASS	
11/30	M	Origin of birds and flight	Ch 34: 718-720; Ch 42: 921, Ch 44: 958
	W	Animal behavior	Ch 51
	F	Mammals: origins and adaptations	Ch 34: 720-726; Ch 42: 902-905, 921
12/07	M	Mammals: reproduction and thermal regulation	Ch 40: 860, 862-863, Ch 44: 959, 962-968; Ch 46: 1012-1013
	W	Human evolution	Ch 34: 726-733; Ch 46: 1010
	F	Fate of the Planet	Ch 53: 1190-1194; Ch 55: 1236-1242; Ch 56: 1246-1250, 1257
12/16	W	Final Exam: 85 points (10:30-12:30)	

- Text: **Biology** (8th edition) by Campbell & Reece, Benjamin Cummings, New York, 2008