

BIO H203 G 1 BIOLOGICAL DIVERSITY
Spring Semester - 2008
MWF 1:00-1:50 pm, SC 233 B

Professor: Dr. Wayne Price. **Office:** SC235; x-3639, wprice@ut.edu,
web site: <http://utweb.ut.edu/hosted/faculty/wprice/>

Office Hours: MTF: 9:00-10:00 am; Th: 9-11 am, other times by appointment

Text: Biology . Seventh Edition by Neil Campbell and Jane Reece, 2005, Pearson Benjamin/Cummings, Pub. Co.

Course Objectives: This course will explore the diversity of life on earth within the framework of our understanding of evolution. Basic topics covered in this course will include an introduction to evolution and origin of life hypotheses. The remainder of the course will focus on the domains and kingdoms of life. Taxonomy, morphology, life cycles and evolutionary relationships among the groups will be stressed. The material presented in this course is essential to all biology, marine science/biology and environmental science majors and will provide a foundation for more advanced coursework. **Students must complete BIO 203 and BIO 204 with a grade of "C" or better to enroll for courses requiring these two courses as prerequisites.**

Attendance Policy: Classes will begin promptly at 1:00 pm. You are expected to be in class at this time and preferably earlier. Attendance will be taken on a regular basis. Students are expected to attend all lectures and to read assigned chapters before class. Essential information that may not be in your textbook will be presented during class. **Three** absences will be allowed in lecture for any reason. Each additional absence will result in a 1% reduction in the final lecture grade. If you miss class, it is your responsibility to obtain missed material from other students in the class. Poor attendance is often correlated with poor academic performance.

Academic Integrity : Any student caught cheating on an exam or an assignment will be given an "F" as a final course grade . This includes plagiarism on writing or homework assignments. A statement to this effect will be placed in the student's personal file in the Office of Student Program Development.

Students with Disabilities : If any student has special needs because of any disability, please go directly to the Academic Center for Excellence Office (Plant Hall 405), to report your needs and provide documentation of your disability for certification. Please feel free to discuss this issue with me, in private, if you need more information.

Disruption Policy: See last page of syllabus.

Please turn off all cell phones and beepers before entering class.

Evaluation: Lecture exams (100 points each), journal summaries (15 points each) and at least two short assignments will constitute 67% of your course grade; laboratory performance will count for 33%. Three major lecture exams (100 points each) and a final will be given during the semester. The final exam will be **comprehensive** and will count 1.5 times as much as the other exams. **No make up exams will be given.** A student who misses a lecture or lab exam without a valid excuse from the Dean of Students or Dean of CNHS will receive a grade of "0" for that exam. For an exam missed with a valid excuse, the Final Exam will be weighted an additional grade. When an exam is missed, the student must notify me within 24 hours after the exam date or receive a grade of "0" for the exam. The short assignments will include one on organismal diversity and another on a minor animal phylum. They will be explained in lab, but will count toward the lecture part of the course.

<u>Grading Policy:</u>	<u>% of Total Points</u>	<u>Grade</u>
	92.0 +	A
	88.0 - 91.9	AB
	82.0 - 87.9	B
	78.0 - 81.9	BC
	72.0 - 77.9	C
	68.0 - 71.9	CD
	60.0 - 67.9	D
	<60.0	F

LECTURE SCHEDULE

<u>WEEK OF</u>	<u>TOPIC</u>	<u>TEXT CHAPTER</u>
Jan 21	Introduction, development of evolutionary theory	<u>22,25</u>
28	Modern evidence supporting evolution	<u>24,25,23:459-470; 26:516-20</u>
Feb 4	Macroevolution: The origin of species	<u>24,25,53:1161-1165</u>
11	Macroevolution	<u>24,25</u>
Feb 18	EXAM I (Monday)	
18	Origin of life, prokaryotes and eukaryotes	<u>26,27</u>
25	Viruses, Prokaryotes	<u>18:334-346,27</u>
Mar 3	Prokaryotes	<u>27</u>
Mar 10	Spring Break	
17	Protista	<u>28</u>
24	EXAM II (Monday)	
24	Plantae: bryophytes, vascular plants	<u>29</u>
31	Plantae: vascular plants	<u>29,30</u>
April 7	Plantae: vascular plants	<u>30</u>
14	Fungi	<u>31</u>
16	EXAM III (Wednesday)	

	Animal origins and phylogeny	<u>32</u>
21	Porifera, Cnidaria, Ctenophora, Platyhelminthes pseudocoels	<u>33</u>
28	Protostomes and deuterostomes, Mollusca	<u>33</u>
	Annelida, Arthropoda, Echinodermata	<u>33</u>
May 5	Chordata, Review	<u>34</u>

Final Lecture Exam:

Wed., May. 7, 1:30-3:30 SC 233 B COMPREHENSIVE

Journal Summary

During the course of the semester, choose two articles from the literature (see list of journals) and summarize them. The first article should deal with some aspect of evolution, systematics, the origin of life, the early evolution of organisms, viruses, prokaryotes, protists or Fungi and is due **Wed., February 27, 2008** at 1:00 pm. The second summary should be about an aspect of Plantae or Animalia and is due **Wed., April 23, 2008** at 1:00 pm. No credit will be given for late summaries. If the summary deals with a subject not listed above, 50% will be deducted from the paper. **Choose an article that is at least four pages in length from the library or an on-line journal. The summaries should be two or more pages in length, typed, double spaced, in a font no larger than 12 point.** The summary should include **the complete citation** (follow the citation format below) and a **photocopy of the article**. If the citation is not completely correct, one point will be deducted. Deductions will be made for errors in spelling (0.5 point/ word), grammar, incomplete sentences, incoherent statements etc...

Example Citation:

Lessing, B. and A. Moring. 1977. Communications and coexistence in a coral community. *Marine Biology* 41:85-92.

Use the following guidelines when writing summaries (see example summary on following pages):

- 1) Give the full citation of paper at beginning of summary.
- 2) Give a brief background and justification for performing the study. What was the purpose of the study? What hypothesis (es) was tested?
- 3) Summarize the main procedures used (Materials and Methods). Some review articles may not have a Materials and Methods section.
- 4) Summarize the main results. Does the research answer the question(s) posed in # 2?

- 5) Discuss the significance of the findings. Compare findings with other studies, if appropriate.
- 6) If you cite sources other than the specific article being summarized, you must list complete citations for these sources in a Literature Cited section at the end of the summary. See the summary for an example.

The journals listed below are in the University of Tampa Library. **If you choose a journal that does not appear on this list, you must obtain my approval.** To search on-line, visit the MacDonald Kelce Library web site: <http://utopia.ut.edu/> Click on **e search, e journals or Full Text Indexes and Data Bases** and use data bases such as JSTOR, ProQuest, Science Direct and Biological Abstracts to search for appropriate journal articles. Also, consider visiting the library and consulting with reference librarians.

American Journal of Botany
American Journal of Physiology
American Midland Naturalist
American Naturalist
*American Scientist
American Zoologist
Animal Behavior
Biological Bulletin
*Bioscience
Bulletin of Marine Science
Copeia
Ecology
Fisheries
Fishery Bulletin
Florida Scientist
Gulf and Caribbean Research (Gulf Research Reports)
Journal of Bacteriology
Journal of Experimental Zoology
Journal of Heredity
Journal of Mammalogy
Journal of Parasitology
Journal of the World Aquaculture Society
Marine Biology (available behind circulation desk)
New Scientist
Quarterly Review of Biology
*Scientific American
Science
Transactions of the American Fisheries Society

BIO 203L G2 - Biological Diversity Laboratory
Spring Semester - 2006
Wednesday 8:00-10:50 am: Cass Building 166

Professor:

Dr. Wayne Price

Office: SC 235; Lab: SC 226

Office Hours: MTF: 9:00-10:00 pm; Th: 9-11 am, other times by appointment

Telephone, email, web site: 257-3639; wprice@ut.edu,

<http://utweb.utampa.edu/faculty/wprice/home.html>

Texts: 1) Biological Diversity Laboratory Manual; 2) A Photographic Atlas For The Biology Laboratory. 5th revised edition.

Learning Objectives: The exercises performed in BIO 203 laboratory are designed to provide hands-on experience with respect to the morphology of typical prokaryotic and eukaryotic organisms. Taxonomic keys will be used to facilitate the differentiation of organismal groups. Compound and dissecting microscopes will be used extensively and several dissections will be performed. By the end of the semester, students should be proficient in the use of microscopes, in dissection methods and in the construction and use of taxonomic keys.

Attendance Policy: Class will begin promptly at 8:00 am. Students are expected to attend all scheduled laboratory sessions until they are completed. One absence is allowed. Each additional absence will result in a 5% reduction in the final laboratory grade. No make-up laboratories, quizzes, or tests will be allowed.

Please turn off all cell phones and beepers before entering class.

Evaluation: The laboratory grade counts as **33%** and the lecture as **67%** of the total grade. **Two lab practicals** will be given, each counting **25%** of the lab grade. Another **25%** of the grade will be composed of **weekly quizzes** to be given at the beginning of each lab. Material from the previous lab will be tested. The lowest quiz will be dropped. Quizzes missed due to absences or tardiness will not be made up and the student will receive a "0" for the quiz. The last **25%** of the grade will be earned through the construction of **taxonomic keys** assigned as take-home work. **Keys must be typed** and will be due at the beginning of a lab; late keys will not be accepted. Other small assignments may be made.

BIO 203 Laboratory Schedule

<u>Date</u>	<u>Topic</u>
Jan 23	Introduction, Classification and Phylogeny (Text: 495-497)
30	Microscopes and Prokaryotes
Feb 6	Animal-like Protists
13	Plant-like Protists
20	Non-seed Plants
27	Seed Plants
Mar 5	Laboratory Exam 1
12	Spring Vacation
19	Fungi
26	Porifera, Cnidaria and Ctenophora
April 2	Platyhelminthes and Nematoda
9	Mollusca and Annelida
19	Marine Field Trip
16	Arthropoda and Echinodermata
23	Echinodermata and Chordata
April 30	Laboratory Exam 2