ZOO 1114 - Introductory Zoology

--- Spring 2008

Purpose: Some of you will be teachers, some of you surgeons. Some of you will be politicians and others will write environmental policy. One of you might make a scientific discovery so important that it shapes the way humans view the natural world. All of you inhabit a living planet.

This course provides useful information about animal biology and challenges you to think like a scientist. Beyond that, my sincerest hope is that the course gives you a sense of awe about life's complexity. I expect you to find yourself one night, unable to sleep, thinking – "Wow, life is amazing!"

Instructors: M**elody Brooks,** Richards Hall room 211. You can direct questions related to the course to the course's email, which is ***zoo1114@ou.edu*****.** *This is the best way to contact me.* I am available throughout the semester for consultation during office hours:

Monday & Friday: 9-11 AM; Tuesday & Thursday: 4-5 PM

Timetable: The course consists of three lectures a week distributed between Tuesday, Wednesday, and Thursday. The following are the scheduled sections for the course; check your course schedule for your specific time commitment.

Section 1: T, R 10:30-11:45; W 10:30-11:20
Section 2: T, R 10:30-11:45; W 2:30-3:20

Required Materials:

1. Textbook (choice of the following options):

a) New *LIFE* textbook, 6th edition (ISBN: 007-326-1483)
b) A custom version of the 6e textbook based on the chapters covered in my syllabus plus a few extra for reference. In *LIFE* 6e, these chapters are: Ch 1-19, 25, 26, 31, 32, 34-36, 39, 41-44 (ISBN: 007-336-5084)
c) An electronic version of the 6e textbook (ISBN: 039-069-2018); *e-book* available on line at *http://ebooks.primisonline.com/eBookstore/index.jsp* (Note, the *e-book* can be downloaded to a flash drive and there is no deadline on the use. As long as the computer is used by the person that has registered the e-book it does not have an expiration date)
d) Used 6th or 5th edition of the *LIFE* textbook
e) *LIFE* packaged with the "Selected Lecture Figures" packet ((see below). ISBN: 007-34-5968)

2. Interwrite PRS Radio-frequency (RF) wand:

You will use this remote control wand for in-class voting. The OU bookstore sells new and used wands.

3. Packet of selected lecture figures:

6th edition, the one by Gaffin/Walvoord (ISBN 007-293-9451); this is available at the OU bookstore or as a free download from the ZOO 1114 *WebCT* site

Grading: I will base your course grade on your performance across 1000 total points. These points are distributed between three mid-term exams (150 points each), 15 homework sets (each worth 10 points), many in-class "pop" quizzes (100 points total), and a comprehensive final exam (300 points). These distributions are summarized below:

Grade Component	Point Value
Midterm Exams (3 * 150 pts.)	450
Homework Questions (15 * 10 pts.)	150
Pop Quizzes / Participation	100
Final Exam	300
Total	**1000**

I will assign semester grades based on the following scale: A = 90% and above; B = 80-89%; C = 70-79%; D = 60-69%; F = 59% and below. Please note that these cut-offs are guidelines and are subject to adjustment if necessary.

Exam Structure: Each of the exams will be composed of scantron-graded (multiple choice, matching, true/false) types of questions. Each midterm exam will have 50 questions worth three points each. The final exam is comprehensive and will be composed of 101 questions. Three sections will cover material relevant to the midterm exams. The remaining set of questions will cover material after the third exam.

Improvement: Because everyone has a bad day occasionally, and because some concepts take some of us longer to grasp than others, I have built into the grading system a way to "redeem" you for a low midterm exam score. The final exam will include material covered after the third midterm as well as material comprehensive to the entire course. I will divide the comprehensive portion into three equal sections, representing material relevant to each of the midterm exams (see above). Should your percentage score on any of these sections be higher than your percentage score on the corresponding midterm, I will adjust your midterm grade up to the higher percentage. We will, however, only grant you one improvement -- your highest. [**Note:** If you miss an exam, this offer is null and void (see make-up policy)].

Make-up Policy: **No make-up examinations or extra credit will be given.** It is therefore crucial that you attend all scheduled examinations. If for some unforeseen reason you are unable to attend a midterm exam, an "a" (for absent) will be marked in the grade book for that exam. Your grade for the missed exam will then be determined based on your performance on the relevant material in the comprehensive portion of the final exam. This policy applies for only one missed exam; I will record a grade of zero for any additional missed exams. [**Note:** If you miss an exam, you cannot take advantage of the improvement policy described above.]

Exam re-grades: If you believe that a question on an exam was incorrectly graded, you must bring it to my attention before the date of the next exam.

Pop Quizzes: As indicated above, there will be many informal "pop" quizzes given during lectures this semester. These will be unannounced, but are of very low pressure; I designed these to help you keep up with the course material. I will give answers to the quizzes in class so you can keep track of your performance. We will take these quizzes using the Interwrite in-class voting system. I will present more information on the format of these quizzes and the Interwrite system on the first day of class. You are responsible for purchasing and bringing your Interwrite remote control to each class.

Homework Sets: Homework sets are due throughout the semester and are worth 10 points each. Due dates are also listed on the attached "Lecture Topics" sheet. You will access and answer questions through our *WebCT* page (see below). Since 15% of your grade comes from these assignments, you will want to be sure to have available an internet ready computer throughout the semester. There are many computer labs on campus with reliable connections and the proper internet browsers to use *WebCT*.

Grade Checks: I will post point totals weekly on the *WebCT* web-based course management system (discussed below). However, because of security concerns and class size, I cannot accommodate informal grade checks (other than those officially sanctioned by the university). I will discuss how to access and use *WebCT* during the first week of class.

Tutoring: The **Zoology Aide Program (ZAP)** is a free tutoring service offered by the Zoology Department and staffed by talented undergraduate teaching assistants and volunteers. The hours that tutors will be available will be posted once their own schedules are determined (during the second week of the semester). The schedules will be announced in class, posted outside the ZAP Room (Richards, room 207), and posted on *WebCT* and the ZAP homepage (http://www.ou.edu/class/zap).

Action Centers and **Tutoring** are free tutoring services offered by University College for many intro-level courses on campus. Both an Action Center and Action Tutoring are available this semester for ZOO 1114. For more information and schedules, visit http://uc.ou.edu/action.htm.

WebCT: I will use the course management package *WebCT* to post various course materials such as point totals, sample test questions, ZAP tutor schedules, homework questions, and useful links to other sites. You will also find email access to the course staff. The web site address for *WebCT* is: ***http://webct.ou.edu***

Log in using your 4+4 OUNet ID and the default password. Your default password for this site will be your birthdate in mmddyyyy format. For example, if your birthday is September 15, 1957, your default password will be 09151957. You must change your password upon initial login. If you need help, please try calling *WebCT* support at 325-INFO or visit *http://support.ou.edu*.

Academic Misconduct: Academic misconduct includes cheating, plagiarism, falsification of records, unauthorized possession of examinations, intimidation, and any other action that may improperly affect the evaluation of your performance. It also includes assisting others in any such act or attempts to engage in such acts. Penalties may include grade penalties and disciplinary action from the University's Academic Misconduct Board. For more on academic misconduct, visit the following website: *http://www.ou.edu/provost/integrity/*. In addition, the OU Honor Council was established in spring 2004 to promote academic integrity at OU. The Council maintains a web presence at *http://www.ou.edu/honorcouncil/*. For your information, a useful website at the University of Indiana gives good examples of plagiarism in written work: *http://www.indiana.edu/%7Ewts/pamphlets/plagiarism.shtml*

Reasonable Accommodation: "The University of Oklahoma is committed to providing reasonable accommodation for all students with disabilities. Students with disabilities who require accommodations in this course are requested to speak with the professor as early in the semester as possible. Students with disabilities must be registered with the Office of Disability Services prior to receiving accommodations in this course. The Office of Disability Services is located in Goddard Health Center, Suite 166, phone 325-3852 or TDD only 325-4173."

Important Dates: Exam #1 -- Tuesday, February 12; 10:30-11:45
Exam #2 -- Tuesday, March 11; 10:30-11:45
Exam #3 – Tuesday, April 8; 10:30-11:45 am
Final Exam (Sections 1 & 2) – Thursday, May 8; 8:00-10:00 am

ADD/DROP

No Refund on Dropped Courses after this date	Friday, January 25
No Record of Grade on Dropped Courses	Friday, January 25
Final Day to Register or Add a Class	Friday, January 18
Automatic Grade of W for Dropped Course(s)	January 28-February 22
Grade of W or F for Dropped Course(s)	February 25-March 28
Petition to College Dean to Drop Course(s)	March 31-May 2

Please note that if you withdraw after the date for an automatic W, I will assign you a W for the class if you are passing at the time of withdrawal; if you are failing, academic standards require that you receive an F.

One More Thing: Universities expect you to spend 2-3 hours of study time OUTSIDE OF CLASS for each credit hour! There is a lot of material to cover in any introductory course, but you can do very well in any class if you decide to study efficiently and commit the necessary time to your education. What should you do during that time? Some suggestions: read your text as you review your lecture notes, make sure you understand the material, be sure and ask questions as they arise, and re-write your notes and incorporate important information from the text, develop study aids, etc. The investment will be worth it as you approach your exams.

Lecture Topic Outline and Readings - Fall 2007

Date	Lec #	Lecture Topic	5th ed	6th ed	HW
Tu 01/15	1	Introduction: Course overview, Policies			
W 01/16	2	What is science?	1.3	1.4-5	
Th 01/17	3	What is Life?	1.1	1.1-3	#1
Tu 01/22	4	Basic chemistry	2.1	2.1-2	
W 01/23	5	Water & life	2.2	2.3	
Th 01/24	6	Organic chemistry	2.3	3.1-5	#2
Tu 01/29	7	Cells	1.2; 3.1-4	4.1-7	
W 01/30	8	The cell membrane	4.1	5.1-4	#3
Th 01/31	9	How is life maintained?: Cellular metabolism	7.1-4	8.1-5	
Tu 02/05	10	How does life grow?: Cell cycle	8.1-3	9.1-3	
W 02/06	11	How does life grow? Mitosis and DNA replication	12.1-4	13.1-4	
Th 02/07	12	Review			#4
Tu 02/12		**EXAM 1**			
W 02/13	13	How cells make proteins: Transcription	13.1	13.5	
Th 02/14	14	How cells make proteins: Translation	13.2-3	13.6-7	#5
Tu 02/19	15	Origins of diversity: Mutation	13.4	13.8	
W 02/20	16	Sexual reproduction: Meiosis	9.1-3	10.1-3	
Th 02/21	17	Spermatogenesis and oogenesis	9.4	10.4	#6
Tu 02/26	18	Mendel and genetic inheritance	10.1	11.1	
W 02/27	19	Tracing multiple genes	10.2	11.2	
Th 02/28	20	Gene linkage and creating gene maps	11.2	12.2	#7
Tu 03/04	21	Other complications to Mendelian ratios	10.3-4;11.3-4	11.4; 11.7; 12.4-6	
W 03/05	22	Cancer?			
Th 03/06	23	Review			#8
Tu 03/11		**EXAM 2**			
W 03/12	24	Introduction to evolutionary view of life			
Th 03/13	25	Darwin and natural selection	14.1-3	15.1-4	#9
Tu 03/18		***Spring Break!***			
W 03/19		***Spring Break!***			
Th 03/20		***Spring Break!***			
Tu 03/25	26	Measuring evolutionary change: Hardy-Weinberg	15.1	16.1	
W 03/26	27	Other mechanisms for evolution	15.2-3	16.2-5	
Th 03/27	28	Small scale processes lead to large scale change: Speciation	16.1-3	17.1-4	#10
Tu 04/01	29	Tracing phylogeny	17.1-4	18.1-5	
W 04/02	30	Animal characteristics	24.1-2	25.1-4	
Th 04/03	31	Overview of Animals: Sponges to Flatworms	24.3-5	25.5-7	#11
Tu 04/08	32	Overview of Animals: Molluscans to Arthropods	24.6-9	25.8-11	
W 04/09	33	Overview of Animals: Deuterostomes	24.10; Ch 25	25.12; Ch 26	
Th 04/10	34	Overview of Animals: Chordates (cont.)	Ch25	Ch 26	#12
Tu 04/15		**EXAM 3**			
W 04/16	35	Tissues & homeostasis	30.1; 30.3	31.1-5; 31.7	
Th 04/17	36	Hormone regulation of reproductions in humans	pp 670; 40.2	34.7; 41.2-3	#13
Tu 04/22	37	The nervous system	31.1-31.3	32.1-6	
W 04/23	38	Animal Behavior	Ch 41	Ch 42	
Th 04/24	39	Animal Behavior	Ch 41	Ch 42	#14
Tu 04/29	40	Ecology	Ch 42	Ch 43	
W 04/30	41	Ecology	43.1-2	44.1-2	
Th 05/01	42	Ecology	43.3-4	44.3-4	#15
Th 05/08		**FINAL EXAM for sections 1 & 2: 8-10 am**			