

Zoology 2012 -- Foundations for the Biomedical Sciences
Spring 2006 Syllabus

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Office Hours: 208 Richards Hall (any change in location will be posted by the door)
Monday, 2:00-4:00
Tuesday, 9:00-10:00, 2:00-4:00
Thursday, 9:00-10:00
or by appointment

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Office Hour Discussions: Some Office Hours, especially before an examination, may be active with several people having questions about examination material. These will be “open door office hours” and you are invited to join in the office discussion. If you have a more confidential issue to discuss at such times, I request that you make an appointment to talk with me individually. There will also be review sessions planned before examinations to answer questions you have about class material.

To make appointments, please email me indicating a number of times that you would be available, and I will work to fit one to my schedule. You realize your own schedule is complex, so you know that “email-tag” to mesh two people’s schedules can be a big cost of time.

Miscellaneous Questions: e-mail jthompson@ou.edu Be sure to put a reasonable notation on the message line, such as “Foundations question”. Blank or abnormal notations may be interpreted as trash and may be deleted without being read.

Readings:

Gonick, L., and W. Smith. 1993. *The Cartoon Guide to Statistics*. Harper Collins, NY.
Nesse, R.M., and G.C. Williams. 1994. *Why We Get Sick*. Vintage Books, NY.
Shannon, T.A. 1997. *An Introduction to Bioethics*. 3rd edition. Paulist Press, NY.

Additional Readings: Other selected material will be distributed in class and will serve as the basis for many class discussions.

Important Dates: Examinations

Exam #1 – Tuesday, 21 February

[Readings, class discussions, and word list for weeks 1 through 5]

Exam #2 – Tuesday, 11 April

[Readings, class discussions, and word list for weeks 6 through 10]

Final Examination - Monday, 8 May, 10:30 – 12:30

[Comprehensive, but with emphasis on readings and discussion since exam #2 plus word list for weeks 11 through 15]

Important Dates: Papers

Essay #1 - Due on Tuesday, 7 March

Selected Topic from your reading in the text *Why We Get Sick*

Take Home Library Search – Due on Thursday, 20 April

Last day to withdraw without petition to the Dean: 31 March 2006. (Note: Any student wishing to withdraw after the first exam can do so with a W, no matter what grade was earned on the first examination. Grades recorded for petitioned withdrawals after the above date will, however, accurately reflect the work done.)

Grading:

2 one-hour examinations at 100 points each	200
2 Essay/Library Projects at 50 points each	100
participation activities at 5 points each (max = 10)	50
(Note: These will be unannounced and worth 5 “all-or-none” points each; ID will be required. A total of 12 will be offered, so even missing 3 (25%) would still be an “A” ($45 / 50 = 90\%$).)	
comprehensive final examination	<u>150</u>
Total =	500

Normally, 90-100% = A; 80-89% = B, and so forth, although I reserve the option of lowering these breakpoints (that is, curving the distribution in your favor) to reward exceptional efforts during the semester.

Unless special arrangements are made in advance, any examinations missed for legitimate reasons will be prorated, based upon the average of your other examinations, at the end of the semester. The final examination, however, cannot be prorated. As usual for missed examinations in this department, a note from a doctor, RA, or some other appropriate written excuse will be needed for the grade file. If you miss class material, please arrange to get notes from another class member and feel free to visit with me to discuss any points you want clarified. A printout of each PowerPoint presentation will be filed in the Zoology/PreMed Advising Office (Richards Hall, 209) for you to read and take notes from.

The university's policy for final examinations will be followed. As indicated in the class bulletin, "The College of Arts and Sciences requires that an examination (either a last or final examination) be given during the scheduled final examination period for each regularly scheduled undergraduate course. ... If a final examination is given, no member of the faculty is authorized to depart from the published examination schedule for either a class or an individual without approval. ... Early final examinations are prohibited." Please keep this schedule in mind when you make arrangements for travel at the end of the semester and bring it to the attention of those who might make travel reservations for you. Having a ticket provided by some well-meaning relative cannot serve as a valid justification for a non-standard final examination.

Any student in this course who has a disability that may prevent him/her from fully demonstrating his/her abilities should contact me personally as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunities.

Each student should be aware of the University regulations in regard to cheating on class examinations or other work. **THIS INCLUDES SUBMITTING IN-CLASS ACTIVITIES LATE, WHEN YOU DID NOT ACTUALLY ATTEND THAT CLASS, OR HAVING A FRIEND SUBMIT THE ACTIVITY ON YOUR BEHALF.** It is also important to understand the various kinds of plagiarism, all of which will be considered forms of cheating. Additional information about such things as what constitutes plagiarism and the advantages and limitations of using internet sources will be discussed in class. Any instance of cheating will be dealt with seriously, under the guidelines set out by the University. I sincerely trust that this will not be necessary.

Examinations will be taken on "scan-tron" sheets with a back page for written answers. Each exam will, therefore, have both scan-tron-graded and written questions. You are encouraged to use the printed test paper to work out answers in case there is a question about how a particular question is interpreted. Both the test paper and the scan-tron sheet must be turned in at the end of each examination. Cases of mis-matched test papers and scan-tron sheets will be serious breaches of test security. Keys for hourly examinations, but not the final examination, will be provided to you after the test. I will be happy to mail you your final examination score and your final course grade if you provide me with a stamped, self-addressed postcard or envelope at the final examination. The final examination will not be returned. I will not provide any grades by email because of confidentiality concerns.

GENERAL EDUCATIONAL ADVICE: In the attached syllabus of readings, chapters are generally listed instead of selected page numbers. I will never tell you something is "unimportant to know". You are not taking this class to pass *my* tests. From the material discussed and the guides given in class, however, you should have no question about the specific information you will be expected to know for an examination. My lectures and the study materials handed out in class are your primary guide to the information that I will expect you to know in detail for an examination. If you have to miss a class, please be certain to get notes from a colleague and visit with me to answer any questions you have about the material you missed.

Foundations for the Biomedical Sciences
Topic Schedule
Spring 2006

This is a tentative schedule for the semester. There are likely to be some minor changes that occur when special opportunities, like a guest speaker or class discussions, indicate that more or less time should be spent on a particular topic. Changes in topic will be made clear in class, but no changes are anticipated in deadlines, such as examinations; any changes of that type will not be made without significant prior notice and the majority approval of the class. For background reading, chapter numbers are given in brackets with the text abbreviation.

Text Abbreviations:

G&S: *The Cartoon Guide to Statistics*.

N&W: *Why We Get Sick*.

Sh: *An Introduction to Bioethics*

Date		Topics & Readings
17 Jan	T	Introduction and Overview
19 Jan	R	Perspectives on Science and the History of Medicine [N&W: 1]
24 Jan	T	Observations and Data [G&S: 1 and 2]
26 Jan	R	Introduction to Probability [G&S: 3]
31 Jan	T	Random Variables [G&S: 4]
2 Feb	R	Random Variables, continued [G&S: 5]
7 Feb	T	Ethnobotany: Medicines from Plants
9 Feb	R	Conserving Biodiversity
14 Feb	T	Perspectives: Complementary and Alternative Medicine
16 Feb	R	Perspectives: Ethics in Research [Sh: 1, 2, 3]
21 Feb	T	EXAM #1
23 Feb	R	Technology, Nature, Responsibility, and Ethical Systems
28 Feb	T	Ethical Issues
2 Mar	R	Bioethics: Birth Technologies, "One Brief Life"
7 Mar	T	Birth Technologies, continued [Sh: 4, 5, 6] ESSAY #1 Due
9 Mar	R	Statistical Sampling [G&S: 6]
13 – 17 March		SPRING BREAK
21 Mar	T	Making Statistical Inferences [G&S: 7]

23 Mar	R	Hypothesis Testing [G&S: 8]
28 Mar	T	Comparing Two Populations [G&S: 9]
30 Mar	R	Issues in Medicine – Biotechnology – History – Ethics: Guest Speaker
4 Apr	T	Pharmacogenetics [N&W: 6]; Recognizing Human Individuality [N&W: 7]
6 Apr	R	Coevolution of Hosts and Pathogens [N&W: 4]
11 Apr	T	EXAM #2
13 Apr	R	The Ethics of Respect for Persons
18 Apr	T	Introduction to Experimental Design [G&S: 10]
20 Apr	R	Regression and Correlation [G&S: 11]; WRITTEN PROJECT #2 Due
25 Apr	T	Balancing Benefits and Avoiding Harm [Sh: 8]
27 Apr	R	Bioethics: Death and Dying [Sh: 7, 9, 10]
2 May	T	Genetic Engineering [Sh: 11, 12, 13]
4 May	R	Research on Humans, and Patient's Rights [Sh: 14, 15, 16]

I recommend that you read or skim these chapters before the class so the general nature of the material is familiar to you. This gives you a broad overview and additional examples of the important concepts emphasized in class. On the examinations, however, specific details and factual material will be drawn from that portion of the topic that is covered in class. Thus, your class notes and class handouts are your guide to what to emphasize in studying for examinations, and you should know that information solidly. If you still have any questions about what portion of the material you are responsible for on an examination, please do not hesitate to ask me. But never let the defined examination material limit what you learn in a class like this – I will set the minimum expectations, but of course I would never put an upper limit on what you should take away from an educational experience.