

ABIO 598P: Parasitology Spring 2003

INSTRUCTOR: Dr. Heather Bennett

OFFICE: SBDG 209

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E-MAIL: HeatherB@usca.edu (often the quickest way to reach me!)

OFFICE HOURS: I am typically in my office every day; if the door is open, I am available for questions. You may also make an appointment to see me. Please do so!!

LECTURE: MW 1-2:15 SBDG 103

LABORATORY: W 2:30-5:10 SBDG 103

TEXTBOOKS: (available at the USCA bookstore or online at <http://www.bn.com> OR <http://www.Amazon.com>)

1. Bush, *et al.* (2001) *Parasitism: The diversity & ecology of animal parasites*. Cambridge University Press, Cambridge U.K.

2. Zimmer (2001). *Parasite Rex: Inside the Bizarre World of Nature's Most Dangerous Creatures*. Touchstone Books.

SUPPLIES: Required: hard-bound laboratory notebook

Recommended: Colored pencils, gloves (if you are squeamish), eye protection (such as goggles or safety glasses). If you own a dissection kit and prefer to use it, please feel free to bring it!

COURSE DESCRIPTION and OBJECTIVES: The lecture will introduce students to the field of parasitology by way of intensive study of the evolution, ecology and diversity of parasitic organisms and their relationship(s) to their host(s). The laboratory will focus primarily on identification, life cycles and pathogenicity of both medical and veterinary parasites. There will also several experiments using living organisms.

METHODS OF PRESENTATION: There will be a variety of presentation styles in this course, including traditional lectures by the professor. Student questions are strongly encouraged! Laboratories will be entirely hands on, and will combine observation of both living and preserved organisms in the laboratory, experiments, as well as occasional field trips to local habitats.

METHODS OF EVALUATION: Grades will be determined by lecture exams, practical examinations in the laboratory, along with additional lecture/lab assignments.

GRADING: You have the opportunity to earn a total of 900 points in this course. These points will be distributed in the following manner:

Lecture exams.....3@ 100 points each.....	300
Laboratory practical exams.....4@ 50 points each.....	200
Lab reports.....2 @ 50 points each.....	100
Lab notebook.....	50
Participation/in discussion.....	50
Final exam (cumulative).....200 points.....	200
TOTAL.....	900

A grade of 90% (810 pts) or above will guarantee an A; an 80% (720 pts.) or above will guarantee a B; a grade of 70% (630 pts.) or above will guarantee a C; a grade of 60% (540 pts.) or above will guarantee a D; typically, a grade of less than 59% (530 pts. or less) will NOT be a passing grade.

Note 1: You must earn a passing grade in the laboratory in order to pass the course. If you fail the lab, you will fail the course, regardless of your lecture grade.

Note 2: You must also attend a minimum of 70% of the laboratory meetings in order to pass. This means that you can only miss three (3) laboratories during the semester. If you miss more than that, you will fail the lab, and also fail the course. You should discuss any expected or unexpected absences with your laboratory instructor. It is very difficult to make up a lab so please plan on attending all of the lab periods.

WHAT I EXPECT FROM YOU:

1. I expect you to have done the assigned reading *BEFORE* the lecture and lab.
2. I expect you to be an active and enthusiastic participant in all lecture and laboratory exercises.
3. I expect you to be respectful to the instructor and the other students in the course.
4. I expect you to be ON TIME for lecture and laboratory.

ADDITIONAL INFORMATION:

1. Attendance and Make-up Policy: I do not take attendance every day, but will check it occasionally. It is in your best interest to attend every lecture and laboratory session. While you could get the lecture notes from a sympathetic classmate, it is virtually impossible to make up a laboratory. *If you are absent it is **YOUR** responsibility to find out what you missed!*

If you miss a lecture exam it is *your* responsibility to follow the following procedure in order to make it up:

- 1) You must contact me NO LATER than 11:00 A.M. on the day the test was administered to explain your absence. You can use e-mail or call my office. If I am not in my office, you will need to leave a message with Mrs. Cutsinger in the main office, or leave a message on the main office answering machine.
- 2) Make up exams will only be given under extreme circumstances, and only for those reasons outlined in the student handbook. Some examples of acceptable excuses are: illness/injury requiring a doctor's care, death in the immediate family

(grandparent, parent or brother/sister), or official USCA activity such as a sport. Examples of unacceptable excuses are: appointments of any kind (including advisement!), oversleeping, vacation at times other than official University holidays, car trouble, or funerals (unless I am notified at least 48 hours in advance of the funeral). 3) You must provide documentation of your absence upon my request. Examples of documentation include but are not limited to a doctor's note, official death notice, police report, written note from USCA coach, etc. 4. Make-up exams will be given at my discretion and convenience and may be in one of two formats (my choice): an oral exam, or a series of lengthy essay questions. ***No exceptions to these policies and procedures will be made.***

NO MAKE-UPS WILL BE GIVEN ON LABORATORY EXAMS!!!

2. Honor pledge: You must endorse the following honor pledge on each lecture and laboratory assignment:

On my honor as a University of South Carolina at Aiken student, I have neither given nor received any unauthorized aid on this assignment or examination. To the best of my knowledge, I am not in violation of academic honesty.

3. If you need help: Please *ASK FOR HELP* if you need it! If you are unable to come to my posted office hours, *MAKE AN APPOINTMENT* to see me or just drop by my office. I don't bite. You can also see any of the laboratory instructors if I am not available. They don't bite either.

4. Disability statement: If you have a physical, psychological, and/or learning disability which might affect your performance in this class, please contact the Office of Disability Services, 126A B&E, (803) 641-3609, as soon as possible. The Disability Services Office will determine appropriate accommodations based on medical documentation.

Lecture Schedule

Note that reading assignments are from the Bush *et al.* textbook.

Date	Topic	Reading assignment
JANUARY		
13	Introduction to the class Pre-test and info sheets	none
15	Introduction to Symbiosis and Parasitism	Chapter 1
20	Immunological considerations	Chapter 2
22	Population Dynamics	Chapter 10
27	Populations	Chapter 10
29	EXAM I	
FEBRUARY		
3	Parasite Populations	Chapter 11
5	Parasite Populations	Chapter 11
10	Parasite/Host Relationships	Chapter 12
12	Parasite/ Host Relationships	Chapter 12
17	Reproduction	Chapter 13
19	Reproduction	Chapter 13
24	EXAM II	
26	Communities of Parasites	Chapter 14
MARCH		
3	Communities of Parasites	Chapter 14
5	Biogeography	Chapter 14
17	Biogeography	Chapter 14
19	Parasite Evolution	
24	Parasite Evolution	
26	GROSS-OUT DAY!!!	(none—be prepared!!!)
31	EXAM III	
APRIL		
2	Parasite Diversity I: Protozoans	Chapter 3
7	Parasite Diversity II: Platyhelminthes I	Chapter 4
9	Parasite Diversity III: More Platyhelminthes	Chapter 4
14	Parasite Diversity IV: Nematoda	Chapter 5
16	Parasite Diversity V: Arthropoda	Chapter 8
21	Parasite Diversity VI: “The others”	Chapters 6,7,9
23	Wrap-up and review	
28	PRACTICAL IV	

Laboratory Schedule

In the lab, there will be three (3) main activities:

A. Discussion of chapters from *Parasite Rex*. For each time we have a discussion, you are expected to turn in a written list of three (3) questions that you still have after reading the assigned chapters. These written questions will be counted as part of your discussion grade.

B. Observation of preserved parasite specimens. Each week, you will be assigned 5 to 10 parasites to become familiar with. For each parasite, you are responsible for 1) being able to identify the parasite; 2) knowing its life cycle; 3) knowing the disease(s) it causes and 4) knowing how to diagnose and treat that disease (if it can be tested!).

C. Experiments/observation of living parasite specimens. There will be four (4) times during the semester that we will work with living parasites. Two of these times, you will be performing experiments on these animals. You will write up the results of the experiments as formal lab reports (format will be given later) and turn in the reports.

DATE	ACTIVITIES
JANUARY	
15	Preserved parasites
22	Discussion: Chapter 1 Preserved parasites
29	Preserved parasites
FEBRUARY	
5	PRACTICAL 1
12	Discussion: Chapter 2 Preserved parasites
19	Live Experiment I: Parasitoid wasps
26	Discussion: Chapter 3 Preserved parasites
MARCH	
5	PRACTICAL II
19	Discussion: Chapter 4 Living gregarines in mealworms
26	Live Experiment II: Cercariae in freshwater and/or marine snails
APRIL	
2	PRACTICAL III
9	Discussion: Chapters 5 and 6 Preserved parasites
16	Lab reports are due Live activities: tick flagging and termite squash
23	Discussion: Chapters 7 and 8 Preserved parasites

*NOTE 1: PRACTICAL IV WILL BE GIVEN DURING LECTURE TIME ON MONDAY 28 APRIL