

Biology 598P Parasitology Spring 2001

INSTRUCTOR: Dr. Heather Bennett

OFFICE: SBDG 209

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OFFICE HOURS: by appointment, or just drop by my office!

LECTURE/LABORATORY: Tuesday and Thursday 8-10:40 A.M.

TEXTBOOK: Roberts and Janovy (2000). Foundations of Parasitology, 6th edition. McGraw-Hill Higher Education, Boston. 670 pp. Available in USC-A Bookstore

LAB MANUAL: none.

LAB SUPPLIES: (recommended) colored pencils, index cards, 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: Survey of parasites of humans, domestic and wild animals. Emphasis on form, life cycles, direct and indirect effects of parasites on human biology, and evolution of parasitic lifestyles.

COURSE OBJECTIVES: By the end of the semester, students in this course will

1. Be able to recognize major groups of parasites.
2. Have an understanding of life cycles of various parasite groups.
3. Be able to describe the mode of transmission, pathology, and treatment and prevention of selected parasitic infections.

METHODS OF PRESENTATION: There will be a variety of presentation styles in this course, including traditional lectures by the professor as well as student discussion. Laboratories will be entirely hands on, and will combine observation of both living and preserved organisms in the laboratory. **PLEASE NOTE:** There will be some number of dissections of preserved and/or freshly killed material. Any student who objects to such dissections must identify her/himself to Dr. Bennett during the first week of classes so that reasonable alternatives to dissections (if any) can be agreed upon. Students planning to pursue careers in the biological sciences should be aware that dissection is employed in a variety of biological disciplines, and development of dissection skills is important.

METHODS OF EVALUATION: Students will be evaluated on three (3) lecture examinations plus a cumulative final examination; two (2) laboratory examinations, lecture/lab quizzes and/or short written assignments, and on the research proposal as assigned.

GRADING: You may earn up to 800 points in this course:

Lecture examinations (3 @ 100 points each).....	300
Lab examinations (2 @ 50 points each).....	100
Final examination.....	200
Research proposal.....	100
Other assignments (editing, discussion, etc.).....	100

WHAT I EXPECT FROM YOU:

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

ADDITIONAL INFORMATION:

1. Attendance and Make-up Policy: 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 the laboratory component of the class.

If you miss an exam, a make-up will only be given under extreme circumstances, such as those outlined in the Student Handbook. Appropriate documentation (doctor's notes, etc.) must be provided to the instructor upon request.

2. Honor pledge: You must endorse the following honor pledge on each 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 feel free to *ASK FOR HELP* if you need it! *MAKE AN APPOINTMENT* to see me or *JUST COME BY!!*. I don't bite.

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.

5. SEMINAR ALERT! Also note that during this semester, we will have two Friday seminars that deal directly with commensalism and parasitology, and you are strongly encouraged to attend them. Seminars are given at 1:00 P.M. on Fridays in SBDG 327. Those of you enrolled in 499 are already required to attend 70% of these seminars (at least 9 out of the 13!)

March 19, 2001

Lance Durden of the Department of Biology at Georgia Southern University.

“Zoogeography of mammals and their ectoparasites in the Indo-Australian region.”

March 30, 2001

Tim Spira of the Department of Biological Sciences at Clemson.

“Plant-pollinator interactions: A threatened mutualism with implications for the ecology and management”

SCHEDULE OF TOPICS

Please note: This is a new course and it is highly likely that schedule adjustments will be made. HOWEVER, dates for lecture/lab exams and due dates for other assignments will NOT change!!

DATE	ACTIVITIES	READINGS
January		
11	<u>LECTURE:</u> Introduction to the Course	
16	<u>LECTURE:</u> Terms and Definitions	Chapter 1
18	<u>LECTURE:</u> Principles of Parasitology I: Ecology and Evolution	Chapter 2
23	<u>LECTURE:</u> Principles of Parasitology II: Immunology and Pathology	Chapter 3
25	<u>LECTURE:</u> Trypanosomes and other flagellates <u>LAB:</u> Introduction to Microscopy	Chapters 4,5,6
30	<u>LECTURE:</u> Amoebae <u>LAB:</u> Trypanosomes and Amoebae	Chapter 7
February		
1	<u>LECTURE:</u> Apicomplexans and ciliates <u>LAB:</u> <i>Plasmodium</i> life cycle; apicomplexans and ciliates	Chapters 8, 9, 10 PROPOSAL TOPICS DUE!
6	EXAM I	
8	<u>LECTURE:</u> Introduction to Platyhelminthes; small groups <u>LAB:</u> Monogenea and Aspidobothrea	Chapters 13, 14, 19
13	<u>LECTURE:</u> Digenea <u>LAB:</u> Digenea life cycles	Chapters 16, 17, 18
15	<u>LECTURE:</u> Cestodea <u>LAB:</u> Cestode life cycles	Chapters 20, 21
20	<u>LECTURE:</u> Introduction to	Chapter 22

	Nematoda	
22	<u>LECTURE</u> : Nematode life cycles <u>LAB</u> : Nematode life cycles	Chapters 23, 24
27	<u>LECTURE</u> : Nematodes, cont'd <u>LAB</u> : More nematodes!	Chapters 25, 26
March		
1	EXAM	
13	<u>LECTURE</u> : A few weirdos and Introduction to Arthropoda <u>LAB</u> : Weirdos	Chapters 31, 32, 33
15	<u>LECTURE</u> : Arthropod parasites <u>LAB</u> : Arthropod parasites	Chapters 34, 35 PROPOSAL DRAFT FOR REVIEW DUE!
20	<u>LECTURE</u> : Arthropod parasites <u>LAB</u> : Arthropod parasites	Chapters 36, 37, 38, 39
22	<u>LECTURE</u> : Insects as disease vectors <u>LAB</u> : Insect vectors	Chapters 36, 37, 38, 39

27	<u>LECTURE</u> : Acari as disease vectors <u>LAB</u> : Acari vectors	Chapter 40
29	EXAM	
April		
10	<u>LECTURE</u> : Economic Impact of Parasites <u>LAB</u> : Tick flagging!	Chapter 1 (review) PROPOSAL PEER REVIEWS DUE
12	<u>DISCUSSION</u> : Eradication Efforts	(none)
17	<u>LECTURE</u> : Epidemiology <u>LAB</u> : Mathematical models	Chapter 2 (review)
19	Wrap-Up and Summary	(none)
24	Student Proposal Presentations	(final proposal due on the date you give your presentation)
26	Student Proposal Presentations	(final proposal due on the date you give your presentation)
May		
3	FINAL EXAM	8:00 A.M.