Huffman Biology 44/5413 Fall 2006

P A R A S I T O L O G Y

A. OFFICE HOURS: Mon 10-12, Tue.Th. 3-5, or by appointment. My office is 212 freeman aquatic biology bldg. Please call in advance (at 245-3550) to arrange for a conference. I can usually be reached with e-mail at dh09@TxState.edu. The lab instructor is Erin O'Docharty eo1029@TxState.edu.

B. MAIN TEXT: Roberts & Janovy, 2005; *Foundations of Parasitology*. 7th ed. McGraw-Hill.

LAB MANUAL: Dailey, 2005. *Essentials of Parasitology Laboratory Manual*, 6th ed. McGraw-Hill.

C. CATALOG ENTRY: (3-4). The biology and biological significance of the common parasites of man and animals.

D. COURSE OBJECTIVES:

1. To familiarize you with the morphology, natural history, and taxonomy of the major parasites of animals and man.
2. To give you a functional understanding of the evolution, ecology, immunology, epizotiology, and pathology of parasitic infections from a medical standpoint.
3. To give you a functional understanding of the concept of parasitology, from the perspectives of physiological ecology (relationship of a host organism to its parasites) as well as population ecology (host/parasite population dynamics).

E. ABSENCE POLICY: Attendance at scheduled class meetings is mandatory.

F. LECTURE: Lecture meetings will open with a call for questions regarding the previous lecture, and a call for comments about recent parasite/disease news. Some lectures may be rather loosely structured, depending on the nature of the material. Questions or comments are encouraged at all times during lecture and lab.

Lectures will be projected from PowerPoint and much of the formal lecture material will be available on the BlackBoard web site for the course (you can enter through TxState web page). Be sure you are using a version 7.x or later of Netscape or version 5 or later of Internet Explorer. Also make sure you have Adobe Acrobat Reader v7.x, Macromedia Flash Player v7, and Apple QuickTime Player 6.x installed. There are several computer labs on campus already equipped with all this software, as well as MS Office.

After I have finished presenting a lecture unit, I will prepare a pdf file of the lecture to post on BlackBoard, along with the actual ppt file. I will send you an email advising you of their availability. They will be available under the Course Documents button and the **Lectures** folder, and the **Notes** link.

G. LABORATORY: The nature of the laboratory sessions will vary depending on the material. Some labs will be very rigorously structured with specific expectations. Others will consist more of independent work, while the teaching assistant and I circulate through the room helping as needs arise.

We have produced a loosely scheduled calendar for the lab that is published on BlackBoard with the syllabus. I will email you of changes to this schedule as I become aware of them.

H. EXAMS: There will be two (2) lecture exams and a final. The lecture final is not comprehensive. The lecture exams will be administered during the Friday afternoon laboratory session and will be designed so you can finish them well within the allotted three hours if you know the material. Approximately 90% of the questions on exams will be material discussed thoroughly in lecture, but about 10% will be material from the reading assignments but not discussed thoroughly in lecture.

Most of the credit on the lecture exams will consist of major essay questions. Essays will be graded critically for evidence of your **working, conversational knowledge** of the concept. Your answers should directly, specifically, and exclusively address the question. Your answers should be precise (everyone reading your answer would come to the same understanding). Your answers should be pedagogically complete (your answer should be sufficiently clear and complete so that someone who has adequate background preparation but has never heard of the concept could read your answer and understand it).

Some of the questions will involve drawing anatomy and life cycles from memory. The drawings need not be artistic nor to scale, but the parts must connect properly and must be labeled correctly.

A study guide will be provided about a week in advance of every lecture exam. It will contain a list of essay questions and required drawings from which the exam will be drawn. Graduate students will have at least one additional essay question and/or drawing that was not on the study guide.

I. Grade Calculations:

1. Lecture exams will count 60% of the final grade. The lowest of exam1 and exam2 will be dropped. Everyone must take the final, regardless of current grade average or attendance at previous exams! To determine your final lecture grade, I use the following expression:

$$Lecture = \frac{\text{Highest of}(Exam1 \text{ or } Exam2) + Final}{2}.$$

Laboratory grades will count 40% of your final grade. See lab syllabus for breakdown of lab grades.

2. Note: "Incomplete" final grades (**I**) are rarely given any more. Missed exams are factored in as 0. Your final average will be determined by the following expression:

$$Final = Lecture \times 0.6 + Lab \times 0.4.$$

3. GRADE CURVE: Your final grade in the course will be based on a straight scale, regardless of the class mean: <60 = **F**, 60 – 69 = **D**, 70 – 79 = **C**, 80 – 89 = **B**, and 90 – 100 = **A**.

J. STUDY TIPS: If you anticipate having difficulty with this course, I URGE you to strike up an acquaintance with one or two of your classmates and plan to study together weekly. This should be worth at least a letter grade of improvement. You should study some alone prior to getting together with your study mate. I also encourage you to prepare answers to essay questions from the review sheet and bring them to me for critical review prior to the exam. There are many helpful websites to help with parasitology, and I have included some of them under the External Links tab on the BlackBoard web site

K. CHEATING: All students caught cheating will be disciplined by the TxState Student Justice Division.

L. DROPPING CLASS: Check with me first to see what grade you will be getting, even if you are sure of your grade and you plan to drop by phone.

M. CELL PHONES, BEEPERS, ETC.: Turn all phones and beepers off when entering class. If you forget and it rings, turn it off immediately (DO NOT answer a phone during lecture!) Lab is a little easier – if you are expecting an important call, you may leave your cell phone on and go outside the classroom to answer it.

N. EVALUATIONS: Just before finals week, I will distribute evaluation forms on which you will be able to evaluate how I have managed my teaching. Please be thinking about suggestions and constructive criticisms you may have about the course, for I have been able to make meaningful improvements in my courses in the past based on student feedback, and plan to continue it.

O. ROUGH LECTURE CALENDAR:
Unit 1: Chapters 1-15 (in part)

MidTerm Lecture Exam: Friday, Oct 13, Lectures 1-13.

Unit 2: Chapters 15 (in part) - 41.

Final Exam: Tuesday, Dec 12 @ 11:30am-2:00pm, Lectures 14-28.

All assignments are due by end of lab on May 3.

P. CLASS SCHEDULE: See below for a tentative schedule.

You are not responsible for every page of every assigned chapter. I will be more specific about actual text pages as we cover the material in lecture.

Please note that I am teaching this course for the second time. I may be experimenting with new ways of motivating interest and increasing teaching effectiveness. I may be making some changes to this schedule as I go along, but will let you know as soon as I decide. The actual dates of exams (other than the final) and the amount of material you will be responsible for on each exam will be adjusted to fit within the constraints of reality.

General Parasitology Lecture and Lab Schedule, Fall 2006

Date	Wk#	Day	Lect #	Lab #	Topic/Event	Readings
08/24/06	1	Thu	1		Intro to Parasitology	Chapter 01
08/25/06	1	Fri		1	Introduction, Assign Project, Form Teams, Microscope overview	Lab Syllabus, Lab Schedule, Microscopy, Necropsy Guide (bring to all labs)
08/29/06	2	Tue	2		Parasite systematics & ecology	Chapter 02
08/31/06	2	Thu	3		Immunology & Pathology	Chapter 03
09/01/06	2	Fri		2	Quiz 1, Earthworm dissection, Specimens: Protozoa, Fungi	Specimen Guides, Gregarine Lab, *Monocystis lumbrici* lab (p. 19 in lab manual)
09/05/06	3	Tue	4		Intro to Parrasitic Protozoa	Chapter 04
09/07/06	3	Thu	5		Protozoa: Kinetoplasta	Chapter 05
09/08/06	3	Fri		3	Quiz 2, Demo Necropsy, Intro to Preservation & Processing,	Preservation & Processing Guide
			Drops with no record & full refund ends			
09/12/06	4	Tue	6		Protoxoa: Other flagellates	Chapter 06
			Drops with auto "W" ends at midnight			
09/14/06	4	Thu	7		Amoeba-like Protozoa	Chapter 07

General Parasitology Lecture and Lab Schedule, Fall 2006

Date	Wk#	Day	Lect #	Lab #	Topic/Event	Readings
09/15/06	4	Fri		4	Quiz 3, Team Necropsy, Specimens: Monogenea	Specimen Guides
09/19/06	5	Tue	8		Apicomplexan Protozoa: Coccidia	Chapter 08
09/21/06	5	Thu	9		Apicomplexan Protozoa: Malaria at al.	Chapter 09
09/22/06	5	Fri		5	Quiz 4, Snail Cercariae Lab, Specimens: Digenea	Cercariae Lab, Specimen Guides
09/26/06	6	Tue	10		Protozoa: Ciliophora	Chapter 10
09/28/06	6	Thu	11		Protozoa: Microsporida, Myxozoa, & Mesozoa	Chapters 11-12
09/29/06	6	Fri		6	Quiz 5	
10/03/06	7	Tue	12		Intro to Flatworms, and Aspidobothrea	Chapters 13-14
10/05/06	7	Thu	13		Intro to Digenea Morphology	Chapter 15
10/06/06	7	Fri		7	Quiz 6, Team Necropsy, Specimens: Cestoda	Specimen Guides
10/10/06	8	Tue	14		Intro to Digenea Life History	Chapter 15
			Review for MidTerm Lecture Exam, 5:00pm - ??:??pm			
10/12/06	8	Thu	15		Intro to Digenea Classification	Chapter 15
10/13/06	8	Fri		8	*Midterm Lecture Exam, Lectures 1-13*	
10/17/06	9	Tue	16		Digenea: Strigeiformes	Chapter 16
10/19/06	9	Thu	17		Digenea: Echinostomatiformes, Plagiorchiformes, & Opisthiorchiformes	Chapters 17-18
10/20/06	9	Fri		9	Field Trip: State Hatchery or San Antonio Zoo (Mandatory)	Field Trip Itinerary
10/24/06	10	Tue	18		Monogenoidea	Chapter 19
10/26/06	10	Thu	19		Intor to Cestoidea	Chapter 20
10/27/06	10	Fri		10	Quiz 7, Team Necropsy, Specimens: Nematoda	Specimen Guides
10/31/06	11	Tue	20		Cestoidea	Chapter 21
11/02/06	11	Thu	21		Intro to Nematoda	Chapter 22
11/03/06	11	Fri		11	Quiz 8, Fecal Flotation Lab, Team Necropsy	Fecal Flotation Lab
11/07/06	12	Tue	22		Nematoda:	Chapters 23-24
11/09/06	12	Thu	23		Nematoda:	Chapters 25-27
11/10/06	12	Fri		12	Quiz 9, Experimental Infection Lab, Specimens: Acanthocephala	Experimental Infection Lab, Specimen Guides, Guide to Writing a Scientific Paper
11/14/06	13	Tue	24		Nematoda:	Chapters 28-30
11/16/06	13	Thu	25		Acanthocephala	Chapter 32
11/17/06	13	Fri		13	Quiz 10, Team Necropsy, Check Experimental Infections,	Specimen Guides
			Drop/Withdrawal ends at 5:00 pm			

General Parasitology Lecture and Lab Schedule, Fall 2006

Date	Wk#	Day	Lect #	Lab #	Topic/Event	Readings
11/21/06	14	Tue	26		Intro to Arthropoda: Crustacea and Pentastomida	Chapters 33-35
11/23/06	14	Thu	*No Classes*			
11/24/06	14	Fri	*No Classes*			
11/28/06	15	Tue	27		Arthropoda: Lice, Fleas, & Flies	Chapters 36, 38, 39
11/30/06	15	Thu	28		Arthropoda: Arachnida & Lesser orders	Chapters 37, 40, & 41
12/01/06	15	Fri		14	Final, Collections Due, Experimental Infection Paper Due	Collection Submission Guide and Forms
12/07/06	16	Thu	29	*Final Lecture Exam,* 8:00-10:30 a.m.; Lectures 14-28		

Q. END OF SYLLABUS