BIOLOGY 362/562
Parasitology Class Schedule - Fall 2012

Instructor: Dr. Todd C. Huspeni **Office Hours:** Mon. 10 A.M.-12 P.M. & Wed. 10-11 A.M.

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Required textbook: *Foundations of Parasitology (FOP)*, 8th Ed. Roberts & Janovy (Bookstore rental)

Optional textbook: *Parasite Rex* by Carl Zimmer (Amazon.com, Borders, etc…)

Required lab manual: *Animal Parasitology Lecture-Laboratory Manual (APLLM)* by Taft & Huspeni

(Available from the Bookstore)

The purchase of a dissecting kit from the bookstore is also highly recommended.

Course objective: The objective of this course is to introduce students to the amazing and diverse world of animal parasites. We will examine topics ranging from life cycles, morphology, adaptations to parasitism, ecology, evolution, physiology, pathological effects, taxonomic classifications, and historical impacts of animal parasites. Students will be exposed (pun intended ☺) not only to parasites of medical and veterinary importance, but also parasites that demonstrate important ecological, physiological, and life history principles.

Course requirements: This course consists of two 50-minute lectures and two 120-minute labs per week. You will be required to take three lecture exams, three lab practical exams, and you will also construct and complete a parasite collection (see details in lab manual).

Grading: Points for this course will be assigned as follows:

Two lecture exams (75 points each)	= 150 points
Three lab practicals (60 points each)	= 180 points
Parasite collection (60 points)	= 60 points
Cumulative final lecture exam (210 points)	= 210 points
Total	**= 600 points**

Final grades will be assigned based on the following **minimum** cutoff percentages:

A	= ≥93%	B-	= 79.9%	D+	= 67%
A-	= 89.9%	C+	= 77%	D	= 63%
B+	= 87%	C	= 73%	F	= 55%
B	= 83%	C-	= 69.9%		

Attendance: Attendance for lecture and lab is mandatory, and past experience indicates there is a strong positive correlation between the amount of time a student spends in class and her/his final grade. We will frequently use living material, and scheduling make-up opportunities for missed classes is exceedingly difficult. Make-up exams will be provided only in the case of serious illness (requiring a physician's note), or the death of a relative. However, absences relating to a student's religious beliefs will be accommodated according to UWS 22.03, providing the student notifies the instructor within the first three weeks of the beginning of class regarding the specific dates she/he will be absent.

Academic integrity: Any misrepresentation of your work, including plagiarism, false data collection, or cheating on exams will result in a zero (0) being recorded for that activity. Please see me if you have any questions regarding this policy. Students are encouraged to become familiar with and understand the *UWSP Community Bill of Rights and Responsibilities*, particularly those sections governing student academic conduct. The *UWSP Community Bill of Rights and Responsibilities* is available for download at: http://www.uwsp.edu/admin/stuaffairs/rights/rightsChap14.pdf

Students with disabilities: Students with disabilities are welcome and encouraged in this class. Students with disabilities should contact the Office of Disability Service during the first two weeks of the semester if they wish to request specific accommodations.

Study Aids: The primary handouts for lectures are provided in the Lecture Supplement. The Lecture Supplement is available as a file named "Bio 362 Lecture Supplement.pdf" on D2L. I will make and distribute to you copies of any color handouts in the Lecture Supplement. Additional handouts may also be provided during particular lectures. Lecture PowerPoint presentations will be made available to registered students through the course link in *Desire to Learn* (D2L). Students must recognize the content of these files **cannot** replace regular class attendance.

Open Lab Time: I will attempt to leave the lab door open (or unlocked) during all other available hours. Students should plan dissections and slide preparation activities accordingly during open blocks of room time. Generally, prepared slides will be available for student review during all open lab times.

Dissection Specimens: Assorted carcasses (e.g., raptors, assorted mammals, etc…) are available for student dissection to procure parasites for the parasite collection. The available carcasses can be found in the labeled freezer in TNR 460 and are available on a first come first served basis. Carcasses from completed dissections **must** be placed into the other labeled freezer for appropriate disposal. Ask your instructor about other carcasses that might also be available.

Important Dates:

Parasite collections are due by 5:00 P.M. on Dec. 13 (though they may be turned in earlier ☺).

The final cumulative exam (210 points) is scheduled for: Wed. Dec 19 @ 12:30 - 2:30 P.M.

Animal Parasitology (Bio 362/562) Fall 2012 Schedule

DATE	TOPIC	PAGES
Sep. 4	Introduction, grading, general principles, definitions	Chaps. 1 & 2 *(FOP)*
Sep. 5	Parasite adaptations, host specificity, Turbellaria, Monogenea, Aspidoboth.	Chaps. 13-14, 19 *(FOP)*
Sep. 6	Digenea: schistosome pathology, immunology, distribution, & life cycle	Chap. 3, 15-16 *(FOP)*
Sep. 10	**Lab 1:** Turbellaria, Monogenea & Aspidobothrea	Pp. 1-12 *(APPLM)*
Sep. 11	Schistosomiasis control, other digeneans, trematode community ecology	Chaps. 17 & 18 *(FOP)*
Sep. 12	**Lab 2:** Digenea Intro., Digenea II & *Schistosoma* (Adult worms)	Pp. 12-26 *(APPLM)*
Sep. 13	Mesozoa, life in gut, Cestoda: *Hymenolepis* physiology & growth	Chaps. 12 & 20 *(FOP)*
Sep. 17	**Lab 3:** Digenea III (Adult worms); Intro. to processing parasites	Pp. 27-36 *(APPLM)*
Sep. 18	Cestoda energetics, *Hymenolepis* competition, gut parasite communities	Chap. 20 *(FOP)*
Sep. 19	**Lab 4:** Digenea IV (Adult worms)	Pp. 37-52 *(APPLM)*
Sep. 20	Cestodaria, Pseudophyllidea & major eucestode orders	Chap. 21 *(FOP)*
Sep. 24	**Lab 5:** Larval Digenea & Life Cycles	Pp. 53-78 *(APPLM)*
Sep. 25	Cyclophyllideans I: *Taenia* spp., *Hymenolepis* spp., *Dipylidium caninum*	Chap. 21 *(FOP)*
Sep. 26	**Lab 6:** Cestodaria, major eucestode orders	Pp. 79-105 *(APPLM)*
Sep. 27	Cyclophyllideans II: Hydatid disease	Chap. 21 *(FOP)*
Oct. 1	**Lab 7:** Cyclophyllideans I	Pp. 106-116 *(APPLM)*
Oct. 2	Nematodes: General features, Trichostrongyles, host hybrids, sex selection	Chap. 22 *(FOP)*
Oct. 3	**Lab 8:** Cyclophyllideans II & Caryophyllidea	Pp. 117-124 *(APPLM)*
Oct. 4	Nematodes: Geohelminths I	Chaps. 23-28 *(FOP)*
Oct. 8	**Lab 9:** Nematodes I	Pp. 125-153 *(APPLM)*
Oct. 9	Nematodes: Geohelminths II	Chaps. 23-28 *(FOP)*
Oct. 10	**Lab Practical 1 followed by open lab for parasite collection work**	
Oct. 11	**Lecture Exam 1**	
Oct. 15	**Lab 10:** Nematodes II	Pp. 154-159 *(APPLM)*
Oct. 16	Nematodes: Guinea worm, filarial worms	Chaps. 29 & 30 *(FOP)*
Oct. 17	**Lab 11:** Nematodes III	Pp. 160-174 *(APPLM)*
Oct. 18	Insect nematodes, Nematomorpha & Acanthocephala	Chaps. 24, 31-32 *(FOP)*

DATE	TOPIC	PAGES
Oct. 22	**Lab 12:** Fecal survey or "We're #1 when it comes to #2" ☺	Pp.175, 309-328 *(APPLM)*
Oct. 23	Parasitic Crustacea & parasitic castration	Chaps. 33-34 *(FOP)*
Oct. 24	**Lab 13:** Acanthocephala, Mollusca, Annelida & Pentastomida	Pp. 176-182 *(APPLM)*
Oct. 25	Parasitic crustacea & chelicerates (mites & ticks)	Chaps. 34-35, 41 *(FOP)*
Oct. 29	**Lab 14:** Parasitic Crustacea	Pp. 183-189 *(APPLM)*
Oct. 30	Insecta: Siphonaptera, Anoplura, Mallophaga, Diptera I	Chaps. 36-39 *(FOP)*
Oct. 31	**Lab 15:** Mites, Ticks & Siphonaptera	Pp. 190-206 *(APPLM)*
Nov. 1	Insecta: Diptera II, biological control and Hymenoptera	Chaps. 39 & 40 *(FOP)*
Nov. 5	**Lab 16:** Insecta: Mallophaga and Anoplura	Pp. 207-213 *(APPLM)*
Nov. 6	Cnidaria (Myxozoa), Protista: Microspora & Amebae	Chaps. 11, 4 & 7 *(FOP)*
Nov. 7	**Lab Practical 2 followed by open lab for parasite collection work**	
Nov. 8	**Lecture Exam II**	
Nov. 12	**Lab 17:** Insecta: Diptera I: sand flies, mosquitoes, black flies, etc…	Pp. 214-238 *(APPLM)*
Nov. 13	Termite flagellates, gut flagellates, Opalinata, & Hemoflagellates I	Chaps. 6 & 5 *(FOP)*
Nov. 14	**Lab 18:** Insecta: Diptera II, Hemiptera, Hymenoptera, & Coleoptera	Pp. 239-250 *(APPLM)*
Nov. 15	Hemoflagellates II: New World Sleeping Sickness, Leishmaniasis	Chap. 5 *(FOP)*
Nov. 19	**Lab 19:** Myxozoa, Microsporidia & Amoebae	Pp. 251-260 *(APPLM)*
Nov. 20	Ciliates & Apicomplexa I: Gregarines	Chaps. 10 & 8 *(FOP)*
Nov. 21	**Lab 20:** Gut Flagellates & Opalinata	Pp. 261-266 *(APPLM)*
Nov. 26	**Lab 21:** Hemoflagellates	Pp. 267-274 *(APPLM)*
Nov. 27	Apicomplexa II*:* Coccidians, *Toxoplasma* life cycle & epidemiology	Chap. 8 *(FOP)*
Nov. 28	**Lab 22:** Ciliates & Apicomplexa I (Gregarines)	Pp. 275-282 *(APPLM)*
Nov. 29	Malaria: History & life cycle	Chap. 9 *(FOP)*
Dec. 3	**Lab 23:** Apicomplexa II (Coccidians)	Pp. 283-287 *(APPLM)*
Dec. 4	Malaria life cycle & pathology I	Chap. 9 *(FOP)*
Dec. 5	**Labs 24 & 25:** Malaria I & II	Pp. 288-298 *(APPLM)*
Dec. 6	Malaria pathology II	Chap. 9 *(FOP)*
Dec. 10	**Lab:** Open lab for work on parasite collection	
Dec. 11	Malaria diagnosis, treatment, history, & genetic adaptations to malaria	Chap. 9 *(FOP)*
Dec. 12	**Lab Practical III** & open lab for work on parasite collection	
Dec. 13	Overview Lecture (or "You are *how* you eat" ☺)	