



Syllabus & Schedule Spring 2012:

The first part of this class will briefly introduce basic concepts and terminology to discuss parasites, vectors, and the (human) host and their relationship to each other. We will then explore a number of important diseases and the diverse set of helminths and protozoa causing them. We will highlight critical aspects of the biology of parasitism and parasitic disease as we go along. The lectures aim to span the entire field ranging from the molecular biology of the parasite to the implementation of control programs in the field. We will upload lectures in pdf and ppt format **after** each session.

The class will be held on a Tuesday/Thursday schedule from 9:30-10:45 a.m. in room 175 of the Coverdell Center. Grading for this class is A-F. There will be two written exams and a cumulative final. All academic work must meet the standards contained in "A Culture of Honesty." Students are responsible for informing themselves about those standards before performing any academic work. More detailed information about academic honesty can be found at: <http://www.uga.edu/ovpi/honesty/acadhon.htm> Attendance will be taken each class, and students may not miss more than three classes. The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

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Check out the "Global Health: Voices from the Vanguard" lecture series.

Date	Lecture	Notes	Resources
Jan10 , Tu	Introduction to this class (Schedule, Grading etc). Basic concepts in Parasitology. (Striepen)	pdf & ppt	CDC Division of Parasitic Diseases (Images, disease info, diagnostics) WHO-TDR Media (Images, Video clips etc.)
Jan 12, Th	Vector Biology 101. General biology and diversity of arthropods. Introduction into key groups of medical interest. (Striepen)		Movie of tick feeding (courtesy of Dr. Glen Needham, OHSU) The diversity of spider and insect anatomy according to CB4500
Jan17, Tu	Immunity to infection -- a crash course (Tarleton)		
Jan 19, Th	Fundamental concepts in Public Health and		

	Tropical Medicine (Colley)	
Jan 24, Tu	Trematodes or flukes. Introduction into platyhelminth biology, life cycles , human lung and liver fluke disease. (Striepen)	Watch the Leucochloridium movie
Jan 26, Th	Schistosomiasis (Moreno)	Watch the schistosomiasis TV production Dr. Moreno showed in class Schistosoma life cycle animation at the Wellcome Trust web site.
Jan 31 , Tu	Biology of cestodes or tape worms. (Moreno)	
Feb 2, Th	Introduction into the biology of Nematodes (Striepen)	Find extensive information on the biology, epidemiology and history of trichinellosis at Trichinella.org
Feb 7, Tu	Important human diseases caused by nematodes II, GI nematodes, immunity & hygiene hypothesis. (Striepen)	Hookworm infection Immunomodulation by worms and hygiene hypothesis Don't try this at home but wait for science to settle the effectiveness and risks: Attempts of self cure by worm infection
Feb 9, Th	Filariasis, Pathogenesis of river blindness and lympahtic filariasis, control programs (Striepen)	Watch video productions on onchocerciasis & lymphatic filariasis and the community centered control programs at this WHO site
Feb 14, Tu	Exam 1	
Feb 16, Th	Introduction into Protozoa & Entamoeba histolytica and human ameobiasis (Striepen)	Entamoeba movies showing contact dependent killing from the Petri lab
Feb21 , Tu	Giardia & Trichomonas (Moreno)	
Feb 23, Th	American Trypanosomes, Chagas disease a chronic infection. (Moreno)	CDC Chagas fact sheet . Chagas Foundation with links to news and recent scientific publication on Chagas.
Feb 28, Tu	Leishmania and the identification of molecular factors governing host parasite interaction (Striepen)	Leishmania movie at the WHO/TDR site. One World Health program on paramomycin and visceral leishmaniasis. Learn more about the program and the not-for-profit drug company concept.

Mar 1 , Th	African Trypanosomes I, biology of parasite and tse-tse vector, sleeping sickness & Nagana (Moreno)	Eliminating Human African Trypanosomiasis: Where Do We Stand and What Comes Next? a PLoS Medicine review
Mar 6 , Tu	African Trypanosomes II, antigenic variation and control of gene expression (Striepen)	Short review paper summarizing the basic concepts of allelic exclusion (one and only one gene is expressed at a time) in trypanosomes.
Mar 8, Th	Trypanosomes III (Moreno)	
Spring Break		
Mar 20, Tu	Toxoplasma I, Biology of the parasite and development of disease. (Moreno)	Review article on toxoplasmosis in Lancet.
Mar 22, Th	Toxoplasma II, The cell biology of host cell invasion. (Striepen)	Good review article on apicomplexan invasion. To see movies again go to Dr. Ward's website . View animations of invasion and the gliding machine .
Mar 27, Tu	Malaria I, Parasite biology, disease & treatment (Moreno)	Recent news articles on malaria treatment and the discussion on bed nets
Ma 29, Th	Malaria II, Pathogenesis and drug treatment & resistance (Striepen)	Check out animations of the malaria life cycle from WEHI & HHMI (note there are two parts)
Apr 3, Tu	Exam II	Questions will include Thursday's lecture on malaria pathogenesis.
Apr 05, Th	Piroplasm, parasites and cancer (Striepen)	Check out the Border Cowboys . Animation of host cell invasion by the Theileria sporozoite.
Apr 10, Tu	Cryptosporidium & other opportunistic infections associated with AIDS(Moreno)	
Apr 12, Th	Chemotherapy of parasitic diseases (Docampo)	
Apr 17 , Tu	Vaccines (Moreno)	
Apr 19, Th	Developing Vaccines for Schistosomiasis (Harn)	
Apr 24, Tu	Vector control, new approaches (Moreno)	
Apr 26, Th	Review	Please also note that you can rate and comment on this class at the UGA - ELC site.

May 3,
Th **Final Exam**

Tentatively 9-11 am