

## Biol 328—Introductory Parasitology

Text: Roberts , Janovy and Schmidt 2008. Foundations of Parasitology. 2008. McGraw-Hill 720 pp

Scheduling: Term 1: Lectures: M, W, 8:00 to 9:00 AM  
Lab: M or T 2:00 to 5:00 PM

**Learning Goals.** Parasitism is the most common lifestyle among Eukaryotes. Because parasites are intimately dependent on other organisms (their hosts) for survival they provide a useful lens through which to view biological interactions.

Lectures will make use of parasites of human and other animals to illustrate aspects of the biology of parasites. At the end of the course students will be expected to be able to discuss parasites from several different perspectives:

1. The parasitic lifestyle and its variety. Parasites are not a monophyletic group but stem from many independent invasions by free living organisms. Each parasitic lineage displays a different pattern of radiation in life history: life cycle, transmission pattern, host spectrum and microhabitat within the host.
2. The most important human parasites are those that cause disease. Students should be able to discuss aspects of immunopathogenesis in different parasites, and should be aware of control and treatment strategies available.
3. What sorts of activities and behaviours contribute to parasitic disease. Why are many parasites more prevalent now that they were before European colonisation of the globe. What limits our ability to effectively control parasitic disease.

The Lab will introduce student to the major types of eukaryotic parasites of humans, with examples from those of domestic animals and wildlife. Student are expected to be able to recognize the parasites and discuss aspects of their biology (life cycle, transmission, hosts spectrum, pathogenesis, control)

**Assessment.** Lab (40%). There will be a final lab exam which will ask student to identify various parasites and to answer questions about their life histories, host associations and disease caused by them. IN addition marks will be awarded for the lab notebook, participation and two short lab quizzes.

Lecture (60%)—Three options:

- (1) There will be a final exam consisting of open ended questions asking for a discussion of various aspects of parasite biology.
- (2) Students may write an first optional assignment which will count for 30% and thereby discount the exam to 30%. The assignment is a critical review (750 words) of a recent paper from the primary literature focussed on some aspect of parasite biology.
- (3) In addition to the critical review (30%) and instead of the final exam student may elect to write a short paper (1000 to 1500 words) worth 30% of the mark on an area of focus in parasitology.