

## **COURSE INFORMATION**

### **PARASITOLOGY: Biology 4091.001 – Fall 2011**

**LOCATION:** Biology Building, Lecture Room 106, Laboratory Room 114

**TIME:** Tuesday and Thursday at 9:30 to 10:50

**TEXT:** Human Parasitology, Bogitsh et al.; Elsevier Academic Press, 3rd Edition or a previous edition

**INSTRUCTOR:** Art Goven  
Biology 210  
940-565-3590  
Email: [goven@unt.edu](mailto:goven@unt.edu)  
Office hours: By appointment

### **COURSE DESCRIPTION:**

This course is designed to introduce students to animal parasites. The course surveys parasitic protozoa (amoebae, ciliates, flagellates), nematodes (roundworms), cestodes (tapeworms), and trematodes (flat worms) concentrating on those organisms that are infective for the human host. A key focus of the course will be the study of parasite nomenclature, life cycles, epidemiology, pathology and clinical manifestations, diagnosis, treatment and prevention. Student will also learn about the host response to parasites via the immune system and the ways parasites have evolved to avoid or use the immune response to enhance their survival.

### **COURSE OBJECTIVES:**

By the end of the course, you will have an understanding of:

- The nature of parasitism
- The life cycle, epidemiology, pathology, treatment, and diagnosis, and prevention of common human parasites
- Host – parasite relationships
- Immunoparasitology or the role of the immune system in host protection

### **COURSE REQUIREMENTS:**

- **ATTENDANCE:** Attendance is mandatory. Lectures will contain information vital to doing well on exams and quizzes.
- **REQUIRED TEXT:** The text above is required. Students will be expected to supplement class lectures with readings from the text.

**EXAMS:** Four lecture exams will be given. Each exam will be worth 100 points. There are 400 possible exam points. Attendance will not be taken; however, quizzes will be given. Quiz points

will added to the 400 possible exam points. The last exam will be the final; there is no comprehensive final exam.

**MISSED EXAMS:** No make-up exams will be given without a valid written reason from the appropriate university personnel or program. The material to be tested on in the make-up will be decided upon by the instructor. It is your responsibility to contact the instructor before missing an exam or immediately after missing an exam.

**SUGGESTIONS:** Do not miss lecture. Review your lecture notes after every class. Ask questions in class for clarification. Most test questions will come from lecture notes. The class is run in an informal manner, relax.

**DISABILITY ACCOMODATION:** In accordance with Section 504 of the federal Rehabilitation Act of 1973 and the ADA of 1990, UNT endeavors to make reasonable adjustments in its policies, practices, services and facilities to ensure equal opportunity for qualified persons with disabilities to participate in all educational programs and activities. If you believe you

**BIOLOGY 4090.001  
PARASITOLOGY  
LECTURE OUTLINE**

**I. INTRODUCTION**

**II. SURVEY OF PARASITES**

**A. Helminths**

**1. Nematodes**

- a. Nematodes infective in the egg stage**
- b. Nematodes infective in the larval stage**
- c. Tissue nematodes**

**2. Cestodes**

- a. Intestinal cestodes**
- b. Tissue cestodes**

**3. Trematodes**

- a. Trematodes infective in the metacercarial stage**
- b. Trematodes infective in the cercarial stage**

**B. Protozoans**

**1. Intestinal and Atrial Protozoans**

- a. Class Sarcodina**
- b. Class Ciliata**
- c. Class Mastigophora**

**2. Blood and Tissue Protozoans**

- a. Class Mastogophora**
- b. Class Sporozoa**
- c. Unclassified**

**III. IMMUNOPARASITOLOGY**

**A. General Outline of the Host Immune System**

**1. Nonspecific Immune Response**

- a. Phagocytosis**
- b. Inflammation**

**2. Specific Immune Response**

- a. Humoral-Mediated Immunity**

**b. Cell-Mediated Immunity**

**B. Immunity to Helminth Parasites**

**1. Gastrointestinal Nematodes**

**2. Tissue Nematodes**

**3. Schistosomes**

**C. Immunity to Protozoan Parasites**

**1. Intracellular Protozoans**

**a. Plasmodium**

**b. Leishmania**

**c. American Trypanosomes**

**2. Blood and Tissue Protozoan**

**a. African Trypanosomes**

**D. Immunological Control of Parasitic Infection**

**IMPORTANT CLASS DATES to Know:**

**Last day to drop without instructor's consent**

**Last day to drop with permission of instructor**

**Exam Dates:**

**Exam 1: Tuesday, September 20, 2011**

**Exam 2: Tuesday, October 16, 2011**

**Exam 3: Tuesday, November 24, 2011**

**Final Exam: Tuesday, December 13, 2011@ 8:00 AM**