

# HUMAN PARASITOLOGY LABORATORY

## Biology 546

T 08:30-10:20

Ackert Hall, Room 228

Spring 2012

**Instructor:** Dr. Kristin Michel  
Office: 267 Chalmers Hall  
Email: [kmichel@ksu.edu](mailto:kmichel@ksu.edu)  
Phone: (785) 532 0161  
Office Hours: Mon. & Wed. 12:30-13:30 PM. Other times by appointment.

**TA:** Melissa Gulley  
Email: [mmg@ksu.edu](mailto:mmg@ksu.edu)

**Laboratory Manual:** The pdf of the lab manual is available on K-State online. Please print out a copy and bring it to every class period.

### Objective:

This laboratory is designed to teach students the basics of identification of common eukaryotic parasites of humans.

### Pre- and Co-requisites:

This course is targeted for sophomore/junior students. At least one course in General Biology is required as a prerequisite. In addition, Biology 545 (Human Parasitology lecture) is **required** either as a prerequisite or co-requisite.

### Outline:

Just as the lecture, the laboratory class is divided into four main groups: Platyhelminthes [Digenes (flukes/trematodes) and Cestodes (tapeworms)], Nematodes, Protozoa, and Arthropods. The labs have been designed to keep fairly close pace with the lectures, at least whenever possible. During each class period students will examine specimens by microscopy using dissecting and compound microscopes. Students will be required to work in groups of 2-3 and share an assigned slide box containing just under 100 permanently preserved specimens. We do not have enough slide boxes or microscopes for students to work alone. So, early during the first class meeting, please pair up with one of your colleagues.

During some laboratories, demonstrations may be set up to supplement the slide collections. These demonstrations generally consist of specimens either too large, too valuable, or too rare to be included in the slide boxes.

Additional to the material provided during class, all students are expected to have reviewed the on-line image tutorial, which can be found in the content section on K-State online via a link on the "Human Parasitology website". Additional images that should also be useful can be found at the Animal/Human Parasitology image library, available through the same website.

**Course schedule** (also listed in the calendar section on K-State online):

DATE	Day	Class #	Topic
17-Jan	Tuesday	1	Introduction and slide box assignment
24-Jan	Tuesday	2	Digenes
31-Jan	Tuesday	3	Cestodes
7-Feb	Tuesday	4	Digenes & Cestodes (Review)
14-Feb	Tuesday	5	***LAB EXAM 1*** (9:30AM-10:20AM) 60 points, Digenes and Cestodes
21-Feb	Tuesday	6	Nematodes
28-Feb	Tuesday	7	Nematodes
6-Mar	Tuesday	8	***LAB EXAM 2*** (9:30AM-10:20AM), 60 points, Nematodes
13-Mar	Tuesday	9	Protozoa (flagellates)
20-Mar	Tuesday	10	Spring Break
27-Mar	Tuesday	11	Protozoa (Amoebae)
3-Apr	Tuesday	12	Protozoa (Apicomplexa, ciliates, misc. groups)
10-Apr	Tuesday	13	Protozoa (Review all phyla)
17-Apr	Tuesday	14	***LAB EXAM 3*** (9:30AM-10:20AM), 60 points, Protozoa
24-Apr	Tuesday	15	Arthropoda - TEVALs
1-May	Tuesday	16	***LAB EXAM 4*** (9:30AM-10:20AM), 60 points, Arthropoda

**Other dates to keep in mind:**

21-Feb – Last day to drop a regular session course without a W being recorded.  
26-Mar – Last day to drop a regular session course.

**Exams and grading policy:**

Four exams are scheduled for this laboratory. Each exam will be at 9:30 - 10:20 am. These will be practical exams, where students cycle through 15 stations and view a specimen at each station (most often through a microscope). There will be two, 2 point questions pertaining to a specimen at each station. The first question will generally ask "what is the species?" The second question will ask about some aspect of parasite biology (i.e. "what is the intermediate host," "where in the host are the adult stages located," etc.). The third exam, over protozoa, will be a powerpoint practical. Separate practicals will NOT be set up for students who miss exams.

Grading will be 90% (A), 80% (B), 70% (C), and 60% (D). The grades are likely not to be curved.

Per University policy, rescheduling of the exam can be achieved if you have two or more other exams in courses with a catalog number LOWER than 545 within 24 hr of the Parasitology final (graduating seniors may take the exam early, however). Please contact me PRIOR to the exam if you need to reschedule.

Should you miss an exam due to a valid excuse such as illness, you will be permitted a make-up exam within 1 week of returning to class.

If you have scheduled events that take you out of town on the day of an exam, for instance athletics, military exercises, etc., please make arrangements **ahead of time** and exams can be taken early.

**Academic honesty:**

Kansas State University has an Honor System based on personal integrity, which is presumed to be sufficient assurance that, in academic matters, one's work is performed honestly and without unauthorized assistance. Undergraduate and graduate students, by registration, acknowledge the jurisdiction of the Honor System. The policies and procedures of the Honor System apply to all full and part-time students enrolled in undergraduate and graduate courses on-campus, off-campus, and via distance learning.

The honor system website can be reached via the following URL:

<http://www.ksu.edu/honor>. A component vital to the Honor System is the inclusion of the Honor Pledge which applies to all assignments, examinations, or other course work undertaken by students. The Honor Pledge is implied, whether or not it is stated: "On my honor, as a student, I have neither given nor received unauthorized aid on this academic work." A grade of XF can result from a breach of academic honesty. The F indicates failure in the course; the X indicates the reason is an Honor Pledge violation.

**Disabilities:**

Any student with a disability who needs a classroom accommodation, access to technology or other academic assistance in this course should contact Disability Support Services ([dss@k-state.edu](mailto:dss@k-state.edu)) and/or the instructor. DSS serves students with a wide range of disabilities including, but not limited to, physical disabilities, sensory impairments, learning disabilities, attention deficit disorder, depression, and anxiety.

**Classroom conduct:**

All student activities in the University, including this course, are governed by the Student Judicial Conduct Code as outlined in the Student Governing Association By Laws, Article VI, Section 3, number 2. Students who engage in behavior that disrupts the learning environment may be asked to leave the class.

**Copyright:**

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**Campus Safety:**

Kansas State University is committed to providing a safe teaching and learning environment for student and faculty members. In order to enhance your safety in the unlikely case of a campus emergency make sure that you know where and how to quickly exit your classroom and how to follow any emergency directives. To view additional campus emergency information go to the University's main page, [www.k-state.edu](http://www.k-state.edu), and click on the Emergency Information button.