ZOO 4232 HUMAN PARASITOLOGY
FALL SEMESTER, 2025
Hybrid
In-person lectures (Room TBA) on MWF 8:30 – 9:20 am
Distance (recorded lectures and other course information available on the course website in Canvas)

INSTRUCTOR: Dr. PETER KIMA, Micro. Cell Science Building, Room 1005, 392-0384. Email: pkima@ufl.edu

Credits: 3

Textbook: **Human Parasitology. Burton J. Bogitsh and Thomas C. Cheng. Academic Press. San Diego CA., 4th Edition. ISBN. 978-0-12-415915-0 (Recommended).** Other recommended texts: Cell and Molecular Biology by Gerald Karp. John Wiley & Sons, Inc.; Immunobiology, The Immune System in Health and Disease. Charles Janeway and Paul Travers. Garland Publishing Inc, New York NY.

Students are required to have access to a computer. All class materials will be displayed on the course website on Canvas. Exams and quizzes will be accessed through the course website.

- **Office hours – Tuesdays 2:30pm – 4:30pm**

Peter Kima is inviting you to a scheduled Zoom meeting.

Topic: ZOO4232 office hours

https://ufl.zoom.us/j/98504765177?pwd=rWGVpSy8AnY9c3obbGHThU1DKUUSGe.1

Passcode - 206501

Course Website : The course website on Canvas contains pertinent information on the course. The website is subdivided into 3 modules:

Lectures module: Most lectures will be delivered in in-person class sessions. The lectures will be recorded and made accessible to all students. Some lectures will be pre-recorded. Lecture can also be accessed synchronously. Here is the Zoom link to access lectures synchronously.

You are invited to a Zoom meeting.

https://ufl.zoom.us/meeting/register/uXk2u36rR0W1P3E-4SCsSw

Meeting ID 978 5618 5060

Passcode - 266847

All recorded lectures will be stored in a library accessible via links in the Lectures module. Powerpoint presentations for each lecture (saved as pdf) will be posted in the 'Lectures' module. **Exam questions will be derived from the lecture material.**

Lecture-associated readings module: The Lecture-associated module will contain insightful case reports of infections as well as short discussions of valuable topics. The material in the Lecture-associated module is intended to reinforce the course objectives and to enhance your overall understanding of parasitism and host-pathogen interactions (you will not be tested on the material in this section)

Assigned readings module. The assigned readings module will contain recent review articles or primary source articles. You will be assigned primary papers and review articles to complement the concepts discussed in the lecture. You will be expected to gain a detailed understanding of the assigned readings. The assigned readings will include annotations to help enhance your knowledge of the articles. Teaching Assistant(s) will be available to discuss the readings with you**. A quiz with at least 10 questions will be extracted from the assigned readings. You will have up to 10 days to complete the assigned readings and quiz.**

Scope: This course will present information concerning parasite life cycles, **biology of host-parasite relationships**, vectors of parasites, epidemiology, methods of diagnosis, prevention, and control of parasitic infections of public health importance.

Objectives: The student is expected to

- obtain a detailed understanding of the life cycle patterns of parasites of humans.
- Appreciate the cell biological aspects of the biology of these parasites and host/parasite interactions.
- Obtain some understanding of the host immune response to these infections as presented in lectures, the recommended textbook, and suggested reviews.
- Learn the epidemiology of the diseases associated with these parasites.
- Become familiar with Vectors of parasites; vector-parasite relationships.

- Understand strategies to control or limit the effects of parasites on humans.
- Gain a basic appreciation of significant unresolved questions relating to some of these parasites and their relationships with humans.

Class Attendance: Class attendance is discretionary. Gainesville students are encouraged to attend in-person lectures. However, all material will be recorded and made available to everyone.

Exams and quizzes:

There will be four proctored class exams.

Gainesville students are encouraged to take the exam in person at the scheduled class time. Alternatively, Gainesville students can take the exam proctored through ProctorU.

Distance students will take exams through ProctorU

ProctorU will proctor the exams.

Each student will **schedule a time to take the exam on the exam dates in the syllabus**. Please schedule your preferred exam time at least 2 days before the exam. Each exam will be available for 2 days. Each student is expected to have sufficient **battery life** to last for the entire 50 min exam. **Please note the exam make-up policy below**.

Quizzes:

There will be 2 types of quizzes.

Type 1 quizzes will be extracted from lectures. Following lecture blocks, quizzes will be made available. Questions are extracted from lectures. You will have 7 days to complete each quiz. Students are expected to work independently (there will 6 Type 1 quizzes)

Type 2 quizzes will be extracted from the assigned readings. The availability of the assigned readings will be communicated to all students via email. Type 2 quizzes will be 'open book'. You will have 2 tries for each quiz. Only your higher score will be recorded. Although the quizzes are 'open book', students are expected to take them independently. **You have 10 days to complete each quiz.**

Please make every effort to complete your quizzes and exams at scheduled times.

Grading: Students in this class will be graded based on Exams and Quizzes.

There will be 4 exams, each worth 15% of the final Grade (All Exams will be worth 60% of your grade).

Quizzes will add up to 40% of your grade (Type 1 quizzes will be worth 20%; Type 2 quizzes will be worth 20%) of your final grade.

Letter grades, including minus grades, will be determined solely from scores on exams and quizzes. The point cut-offs for the letter grade assignment will be posted after the second exam.

No exam make-ups: Exams are available over 2 days and can be taken from anywhere with accessible Wi-Fi. Make note of the exam dates in the syllabus and make the necessary arrangements.

ZOO 4232 Human Parasitology Lecture Schedule
Fall Semester, 2025

Date	Topic	Instructor
August 22 (Fri)	Introduction to Course	P. Kima
25 (Mon)	Primer/Review- The Eukaryotic Cell	P. Kima
27 (Wed)	The Host Immune Response Primer	P. Kima
29 (Fri)	The Host Immune Response Primer	P. Kima
	Quiz 1 is made available.	
September 1 **(Mon)**	**No Class - Labor day**	
3 (Wed)	Protozoa: General Features/Visceral Protozoa	P. Kima
5 (Fri)	Visceral Protozoa (Amoeba and Ciliates)	P. Kima
08 (Mon)	Visceral Protozoa (Amoeba and Ciliates)	P. Kima
10 (Wed)	Visceral Protozoa (Flagellates)	P. Kima
	Quiz 2 is made available	
12 (Fri)	Visceral Protozoa (Flagellates)	P. Kima
15 (Mon)	Visceral Protozoa (Flagellates)	P. Kima
17-18 (Wed/Thu)	**Exam 1 (Eukaryotic cell/Immune Response/Visceral Protozoa)**	
19 (Fri)	Blood and Tissue Protozoa (Hemoflagellates)	P. Kima
22 (Mon)	Blood and Tissue Protozoa (Hemoflagellates)	P. Kima
24 (Wed)	Blood and Tissue Protozoa (Hemoflagellates)	P. Kima
	Quiz 3 is made available	
26 (Fri)	Blood and Tissue Protozoa (Hemoflagellates)	P. Kima

29 (Mon)	Blood and Tissue Protozoa (Apicomplexa)	P. Kima
October 1 (Wed)	Blood and Tissue Protozoa (Apicomplexa)	P. Kima
3 (Fri)	Blood and Tissue Protozoa (Apicomplexa)	P. Kima
	Quiz 4 is made available	
06 (Mon)	Blood and Tissue Protozoa	P. Kima
08 (Wed)	Trematodes: General Features	P. Kima
10 (Fri)	Visceral flukes	P. Kima
13 (Mon)	Visceral Flukes	P. Kima
14-15 (Tues- Wed)	**Exam II (Vectors / Hemoflagellates / Apicomplexa**	
17 (/Fri)	**UF Homecoming – no class**	
20 (Mon)	Visceral flukes	P. Kima
22 (Wed)	Blood Flukes	P. Kima
24 (Fri)	Blood Flukes	P. Kima
	Quiz 5 is made available	
27 (Mon)	Cestodes: General Characteristics	P. Kima
29 (Wed)	Intestinal Tapeworms	P. Kima
31 (Fri)	Intestinal Tapeworms	P. Kima
November 03(Mon)	Extraintestinal Worms	P. Kima
05 (Wed)	Extraintestinal Worms	P. Kima
	Quiz 6 is made available	
07 (Fri)	Extraintestinal Larval worms	P. Kima
10 (Mon)	Veterans Day	
12/13 (Wed/Thurs)	**Exam III (Lectures on Flukes/Cestodes)**	**P. Kima**

	14 (Fri)	Nematodes – General features	P. Kima
	17 (Mon)	Intestinal Nematodes	P. Kima
	19 (Wed)	Intestinal Nematodes	P. Kima
		Quiz 7 is made available	
	21 (Fri)	Intestinal Nematodes	P. Kima
	24 (Mon)	Blood and Tissue Nematodes	P. Kima
	26 (Wed)	Thanksgiving break	
	28 (Fri)	Thanksgiving break	
		Quiz 8 is made available	
Dec	01 (Mon)	Blood and Tissue Nematodes	P. Kima
	03 (Wed)	Blood and Tissue Nematodes	P. Kima

Final Exam

Date and time determined by Registrar
Gainesville students are encouraged to take the exam in class on the scheduled date and time.

The exam will be accessible via ProctorU all day on the scheduled exam date for all students.

Exam 4 will be the final exam – Questions will be derived from lectures on Nematodes.

IMPORTANT NOTES

Academic Honesty: As a result of completing the registration form at the University of Florida, every student has signed the following statement: ***I understand that the University of Florida expects its students to be honest in all academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University.***

University of Florida Counseling Services: On-campus resources are available for students experiencing personal difficulties or struggling with unclear career and academic goals that impact their academic performance. These resources include:

1 University Counseling Center: 301 Peabody Hall, 392-1575, personal and career counseling.

2 Student Mental health: Student Health care Center, 392-1171

3 Sexual Assault Recovery Services (SARS): Students Health Care Center, 392-1161, sexual counseling.

4. Career Resource Center: Reitz Union, 392-1601, career development assistance and counseling.

5. Consult resources for students on your campus (Distance)

Study guide
You are expected to understand and recall the details about the organisms discussed in the course. Below is a study guide to assist with your studies.

Learning objectives/study guide
Know the pertinent taxonomic classification of the parasite of interest and for related parasites.
Know the outstanding morphological characteristics of the parasite of interest. How can it be distinguished from other particles in a stool sample, for example? How can it be distinguished from closely related members?
Know the life cycle stages of the parasite. If a vector transmits it, what morphological stages are in the vector? What is the name of the vector? If it lives in the environment (soil, water…), which morphological stages are found there? If it lives in mammalian tissues or blood, which morphological stages are found there?
What is the parasite's geographical distribution? Which countries are endemic?
Know the tissues in the mammalian host that are most affected by the parasite. What are the symptoms that occur as a result?
Know the immune responses to organisms as presented in lectures and assigned readings.
Know the pathogen-derived molecules that have been implicated in pathogenesis.
How is the infection diagnosed?
What are some strategies to control transmission? What are methods to prevent infection?
Know the medications available to treat infections. Know which ones are effective.