

An Introduction to Parasitology (523067, 2 credits)

"According to one estimate, parasites may outnumber free-living species four to one. In other words, the study of life is, for the most part, parasitology" –Carl Zimmer

This course is intended to give an introduction to parasite biology and ecology. This is a lecture series that will cover, broadly, all topics of parasitology. Students will be introduced to arthropods, roundworms, flatworms and protozoa of major significance as infectious agents of humans and wild and domestic animals. Basic terminology, anatomy, lifecycles, field methodology, and pathology pertinent to each group of parasites will be covered, as well as medically relevant (and sometimes disgusting) parasites, such as malaria, tapeworms, bot flies, etc.

This will be an interactive course separated into two parts each day: lectures during the first half, and group discussions of the latest relevant literature during the second half. Students will be graded on a final examination and individual presentations on relevant research articles. No points are awarded for attendance alone. However, the inherently participatory nature of this class will make it difficult to succeed with any absences.

We hope to introduce students to the fascinating and magnificent world of Parasitology, and provide the knowledge necessary to begin to conduct parasitological research independently.

Upon completion of this course, a successful participant will be able to:

- Define key terms associated with parasitology
- Summarize the purpose of and procedures associated with general laboratory diagnosis techniques
- Understand the transmission patterns of some of the most infectious parasitic diseases
- Identify & describe key parasitic morphologic terms
- Match conditions and disease states with corresponding causative parasites
- Identify & describe key parasite life cycle concepts
- Arrange parasite life cycle stages in order of occurrence

Day 1: Introduction to Parasitology: Why are parasites important? Parasitic protozoa

Day 2: Biology of Cestodes, Digeneans

Day 3: Monogeneans & Acanthocephalans, and Nematodes

Day 4: Parasitic Arthropods

Day 5: Parasites and behavior, and Life cycle strategies

Day 6: Short exam and student presentations

Course specification: Lectures, group discussions, mini-presentations

Level: Basic

Time: 10.10.-14.10. daily 13-16 and final seminar Thursday 20.10. 13-16

Teacher: Sarah Zohdy

Place: Biocenter 2 and 3, exact room will be announced later

Prerequisites: Basic knowledge of biology

Quota of students: 16 (minimum 8)

Credits: 2 ECTS

Enrolment email sarah.zohdy@helsinki.fi by 3.10.