This syllabus is a general representation of the course as previously offered and is subject to change.

BIOL 328 – Introductory Parasitology

General Course Syllabus *(Last updated: March 2020)*

About the Course:

Course Description: Classification, morphology and life histories of animal parasites affecting humans and other animals. Parasitology is by its nature an integrative discipline. Situations involving parasites should provide students an opportunity to use knowledge they have previously acquired in areas such as evolution, ecology, pathophysiology, anatomy, cell/molecular and immunology. In the labs, students will be given an opportunity to look at living and fixed preparations of parasites, to learn and understand the sense of their life histories.

Course Format: Lecture
Credits: 3
Pre-requisites: BIOL 121

Course Learning Objectives:

By the end of this course, students will be able to:

- Gain an appreciation of the parasitic lifestyle and variety, and have a framework to explain the different solutions parasites have to infect new hosts.
- Understand the ways parasites affect humans and what sorts of human activities contribute to parasite transmission.
- Describe the relationship the parasite has with its host at the organismal and cellular level, including parasite feeding, impact on the host, and how long-standing parasitic infections can occur in spite of a host defense system designed to control unwanted intruders.
- Explain the factors that limit the ability to control a parasite.

Textbooks and Additional Resources:

No textbook. Handouts and materials will be provided on the course website (https://www.zoology.ubc.ca/~adamson/Biol328/).

Evaluation:

Assessment	Weight
Lab (45%)	
• Class Participation	5%
• Lab Journal	15%
• Lab quizzes	5%
• Lab Final	20%
Lecture (55%)	
• Final exam	55%*

*1 or more optional papers can be completed to offset the final lecture exam mark (see more details below).

DETAILS ON ASSESSMENTS:

Class participation. This will be based on attendance and general participation with the class. Students don't need to be asking/answering all the questions, but attendance and completing the lab work is necessary. It is difficult to impossible to schedule extra time outside of the assigned lab periods so students should attend their laboratory session they are scheduled in to not risk missing the lab altogether.

Lab journal. Students will develop a Lab journal in which they draw material presented in the lab and make notes on relevant information relating to the material. This is not a neatness exercise; the goal of the notebook is to be functional. The journal should help students prepare for the final lab exam, and students may make a copy to study for the lecture exam since the original will be handed in during the last week of classes.

The lab exams and quizzes. The final lab exam will be largely a musical microscope format in which students will demonstrate their ability to identify parasites and pertinent aspects of their anatomy, life history and biological or economic importance. The quizzes are mainly to show students the nature of the questions asked on the final exam, and they will allow students to assess whether they are learning effectively in the lab period.

The final exam will be a number (1 or 2) of open-ended questions that invite students to revisit and discuss lecture material. The question(s) will be provided during the last week of classes and students will submit answer(s) to the instructor during the exam period (time to be announced later).
Students may offset the worth of the exam by doing one or 2 **optional assignments**. The first assignment would be a critique of a recent scientific paper in parasitology to count as 50% of the lecture mark (if students score higher on the final than on the paper, the paper mark won't be counted). In addition to the critique, students may arrange a second research paper. Students will be required to work out an acceptable topic and heading structure with the instructor, and if acceptable, the paper and critique together can replace the final exam score altogether.

Schedule of Topics:

LECTURE SCHEDULE (subject to change):

Lecture	Topic
1	Introduction
2	Intestinal Protista Transmission
3	Host defense
4 - 5	Kinetoplastid 1
6 - 7	Apicomplexa
8	Platyhelminthes 1 Transmission
9	Platyhelminthes 2 Review on immunobiology of Schistosomes
10 - 11	Platyhelminthes 2 (continued)
12	Monogenea
13 - 15	Cestodes
16 - 19	Nematodes
20	Arthropoda, Copepoda
21	Arthropods, Ticks, mites
22	Arthropods, Insects

LAB SCHEDULE (subject to change):

Week	Topic
1	Intestinal parasites and transmission
2	Blood & deep tissue parasites & transmission part 1
3	Blood & deep tissue parasites & transmission part 2
4	Digenea
5	Monogenea
6	Cestoda
7	Nematoda
8	Nematoda
9	Arthropoda

For each parasite studied in the lab, students will learn the following:
1. How does the parasite fit into the tree of life taxonomically?
2. Mode of infection/life cycle of parasite.
3. How can the infection be diagnosed?
4. Where does the parasite occur geographically?
5. Where in the host does the parasite occur and how does it get there?
6. What is the nature of the association with the host: disease, morbidity, mortality?

University Policies:

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence.

> *UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom.*
>
> *UBC provides appropriate accommodation for students with disabilities and for religious, spiritual and cultural observances.*
>
> *UBC values academic honesty and students ae expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions.*

Details of the policies and how to access support are available on the UBC Senate website.