#### **Study Programme : MSc in Biology**

Degree level: Master

Course Title: Parasitology Professor: Ester Popović

Elective Course

Number of ECTS: 8

### Prerequisites:

**Course Objective:** Protozoa and Animalia parasites in humans and animals. Ecology, morpho-anatomy, life cycles and classification of most common parasitic species, their pathology, immunology and epidemiology.

**Course Outcome:** Students are introduced to definitions and concepts of parasitism, and representatives of most common species, giving them solid basics to parasitological laboratories' training.

#### **Course Content:**

Theoretical part

Parasitism as a way of life, evolution of parasites. Parasite-host relationship, parasite species-specifity, life cycle strategies. Host categories, parasitofauna of specific vertebrate classes, seasonal dependency, hosts age and sex. Abiotic and biotic factors of invasion. Helminthes interspecies relationships. Morphology, life cycles, systematic and dispersion of parasitic Protozoa, Trematodes, Cestodes, Acanthocephala and Arthropoda. Diagnosing methods, control and eradication of parasites. Infection and transmission in populations. Mathematical models in parasitology.

# Practical part

Introduction to selected representative species' morphology using microscope mounts. Helminthological searches of vertebrates, fixation, staining and production of in-toto mounts. Extensity and intensity of infestation, differential morphological characteristics and helminthes determination.

## **Reading List:**

- 1. Wikerhauser T., Brglez J., Atlas parazita uzročnika zoonoza u Hrvatskoj i Sloveniji, Croatian Academy of Arts and Sciences, Školska knjiga, Zagreb, 1996
- 2. Wilford Olsen O. Animal parasites (The life cycles and Ecology), University park press, Baltimor 1974
- 3. Zamaguti S. Synopsis of Cigenetic Trematodes of Vertebrata, V-I, Keigaku, Tokio, 1971
- 4. Mehlhorn, H. (Ed.) Encyclopedic Reference of Parasitology: Biology, Structure, Function, 2nd ed., Springer 2001
- 5. Mehlhorn, H. (Ed.) Encyclopedic Reference of Parasitology: Diseases, Treatment, Therapy, 2nd ed., Springer 2001

Total hours:						
Lectures:	Practicals:	Other:	Student	research work:		
3		3	5			
Methods of instruction:						

Audio-visual lectures, theoretical and mathematical exercises

Assessment (maximum number of points 100)						
Requirements	points	Final exam	points			
Active participation in lectures		Practical exam				
Active participation in practicals		Oral exam	50			
Test(s) or	30					
Pre-exam testing	20					
Remark:						