

**DIVISION OF BIOLOGY AND MEDICAL PARASITOLOGY
COURSE IN PARASITOLOGY
FOR STUDENTS OF THE FACULTY OF MEDICINE**

Unit responsible for teaching this course:

Division of Biology and Medical Parasitology
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HEAD:

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Person responsible for teaching the course:

dr hab. Wojciech Piasecki

Total hours: 25 hours including:

10 h of seminars

15 h of classes

ECTS points: 2

GENERAL INFORMATIONS AND COURSE RULES:

“Parasitology” is taught on the Fifth Semester, covering a total of 25 hours of seminars and classes:

1. Seminars and classes of 15 and 10 hours, respectively are intended to cover the issues pertaining to biology of selected parasite species, their pathogenicity, as well as epidemiology of the related parasitic disease, elements of immunology within the host–parasite system, prophylaxis of parasitic diseases, as well as the diagnostic methods involved. The course is divided into three sections covering the following groups of parasites: protozoans, helminths, and arthropods.
2. Students are evaluated based on three partial tests and the final test. Each section of the material (protozoans, helminths, or arthropods) will conclude with a partial test involving a single choice written test and a practical test (microscopic slide identification). The final test will be a multiple-choice test. The final grade will be based on the results of the final test (50%) and on all grades received at the end of each section (50%) but including also grades of failed tests).
3. Students’ attendance is obligatory. Only one absence will be tolerated. In justified cases a student, who skipped a class, can join another group to catch up with the material. We acknowledge that the prescribed 25 class (and seminar) hours may be not enough for some students, so if necessary an appointment may be set up for consultations.
4. A positive grade requires at least 60% of correct answers.

Curriculum of Parasitology

A/ Seminars

1. Protozoans - flagellates: *Trichomonas vaginalis*, *Trichomonas tenax*, *Giardia lamblia*, *Trypanosoma brucei gambiense*, *T. brucei rhodesiense*, *T. cruzi*
2. Protozoans - flagellates: *Leishmania donovani*, *L. tropic*
Amoebae: *Entamoeba histolytica*, *Entamoeba gingivalis*, *E. coli*, *Acanthamoeba castellanii*, *Naegleria fowleri*, Ciliates: *Balantidium coli*, *Pneumocystis jiroveci* (fungus)
3. Protozoans - apicomplexans: *Plasmodium vivax*, *P. malariae*, *P. ovale*, *P. falciparum*, *Toxoplasma gondii*, *Cryptosporidium parvum*, *Babesia microti*
4. Power-Point presentations of students (presented in 3-4 person teams) on a parasite related topic (e.g., Contemporary issues of malaria)
5. Digenean flukes (Trematoda): *Fasciola hepatica*, *Fasciolopsis buski*, *Dicrocoelium dendriticum*, *Opisthorchis felinus*, *Clonorchis sinensis*, *Paragonimus westermani*

B/ Classes

1. Digenean flukes cont.: *Schistosoma haematobium*, *S. mansoni*, *S. japonicum*; Tapeworms (Cestoda): *Diphyllobothrium latum*, *Taenia saginata*, *Taenia solium*, *Echinococcus granulosus*, *E. multilocularis*
2. Tapeworms cont.: *Hymenolepis nana*, *H. diminuta*, *Dipylidium caninum*
Nematodes (Nematoda): *Ascaris lumbricoides*, *Enterobius vermicularis*, *Strongyloides stercoralis*, *Ancylostoma duodenale*
Nematodes (Nematoda): *Trichinella spiralis*, *Toxocara canis*, *T. cati*, *Dracunculus medinensis*, *Anisakis simplex* (syn. *A. marina*), *Trichuris trichiura*
Filarial worms: (Filarioidea): *Wuchereria bancrofti*, *Loa loa*, *Onchocerca volvulus*
3. Acarines (Acarina): *Ixodes ricinus*, *Argas reflexus*, *Demodex folliculorum*, *Sarcoptes scabiei*, *Ornithonyssus bacoti*
4. Insects (Insecta): *Pediculus humanus*, *Pthirus pubis*, *Cimex lectularius*, *Triatoma infestans*, *Phlebotomus papatasi*, *Anopheles maculipennis*, *Aedes* sp., *Musca domestica*, *Glossina palpalis*, *Lucilia sericata*, *Pulex irritans*, *Ctenocephalides canis*, *Blattella germanica*
5. Parasitological diagnostics
6. Final test

Suggested textbooks :

- Buczek A. (editor) 2007 "Parasitology for Medical Students" Koliber Publ., Lublin 330 pp. ISBN 83-60497-30-3.
- Despommier D.D., Gwadz R.W., Hotez P.J., Knirsch C.A. 2005 "Parasitic diseases" fifth edition. Apple Trees Productions, New York.

Expected skills and knowledge acquired during the course

- Identification of parasites on smears, squashed preparations, wet mounts and histological preparations
- Knowledge of parasite biology, pathogenicity, epidemiology and infection pathways
- Knowledge of diagnostic techniques in parasitology and prophylaxis of parasitic diseases
- Knowledge of environmental and behavioural conditions influencing occurrence of parasitic diseases (including diversity of parasite life cycles)
- Ability of linking the details included in the patient's interview with the morphology of individual developmental stages of different parasite species and their location in human organism