

DISCIPLINE SHEET**ACADEMIC YEAR****2022- 2023****1. DATA ABOUT THE STUDY PROGRAM**

1.1 Institution of higher education	UNIVERSITY OF MEDICINE AND PHARMACY OF CRAIOVA
1.2 Faculty	MEDICINE
1.3 Department	2
1.4 Study Domain	HEALTH
1.5 Study cycle	LICENCE
1.6 Study program/ Qualification	MEDICINE

2. DATA ABOUT THE DISCIPLINE

2.1 DISCIPLINE NAME	PARASITOLOGY		
2.2. Discipline code	MED3109		
2.3 The holder of course activities	Bălășoiu Maria, Ungureanu Anca, Cristea Oana, Zlatian Ovidiu Mircea, Ghenea Alice		
2.4 The holder of seminar activities	Bălășoiu Maria, Ungureanu Anca Marilena, Cristea Oana, Zlatian Ovidiu Mircea Ghenea Alice, Boldeanu Lidia, Mititelu Răzvan		
2.5. Academic degree	Course: Profesor/Conferentiary/Lecturrer/Lecturer/Lecturer Seminar activities: Profesor/Conferentiary/Lecturer/Lecturer/Lecturer/Assistent/Assistent		
2.6. Employment (base norm/associate)	Base norm		
2.7. Year of study	III	2.8. Semester	I
2.9. Course type (content)			CFD
2.10. Regime of discipline (compulsoriness)			

3. THE ESTIMATED TOTAL TIME (teaching hours per semester)

3.1 Number of hours per week:	2	3.2 from which: course	1	3.3 seminary/laboratory	1
3.4 Total hours in curriculum:	28	3.5 from which: course	14	3.6 seminary/laboratory	14
Time found distribution (hours)					
Study from manual, course support, bibliography, and notes					9
Additional documentation in the library, specialized electronic platforms and, on the field					3
Training seminars / labs, homework, reports, portfolios, and essays					4
Tutoring					1
Examinations					4
Other activities... counselling, student scientific programs					1
3.7 Total hours of individual study	22				
3.9 Total hours per semester	50				
3.10 Number of credits ¹	2				

4. PREREQUISITES (where appropriate)

4.1 curriculum	Students must have solid knowledge of anatomy, biochemistry, cell and molecular biology.
4.2 competency	

5. CONDITIONS (where appropriate)

5.1. of course deployment	Lecturer room/online environment
5.2. of seminary/ lab deployment	Laboratory room / online environment

6. SPECIFIC COMPETENCES ACCRUED

PROFESSIONAL COMPETENCES	C1. Identify parasitic agents involved in infectious diseases and establish parasitological diagnosis based on laboratory investigations.
	C2. Correct assessment of the risk of transmission of parasites and the occurrence of an individual / collective disease, followed by the choice and application of appropriate prophylaxis measures.
	C3. The correct choice of antiparasitic chemotherapeutics used in the treatment of infectious diseases with parasitic etiology. Approaching the health / disease problems from the perspective of the particularities of the community, in direct relation with the social, economic and / or cultural conditions proper to that community.
	C4. Initiation and development of a scientific and / or formative research activity in the field of parasitology.

TRANSVERSAL COMPETENCE	<p>CT1. Autonomy and responsibility</p> <ul style="list-style-type: none"> the acquisition of moral reference points, the formation of professional and civic attitudes, that will allow to the students to be fair, honest, helpful, understanding, unconflictuals, to cooperate and to be comprehensive in the face of suffering, to be available to help people, and to be interested in community development; to know, to respect and to contribute to the development of moral values and professional ethics; to learn how to recognize the problems when they arise, and provide solutions for solving them. <p>CT2. Social interaction</p> <ul style="list-style-type: none"> to recognize and to have respect for diversity and multiculturalism; to have or to learn how to develop teamwork skills; to communicate orally and in writing the manner of work requirements, the obtained results, to consult with the team; to engage themselves in voluntary activities, to know the essential problems of the community. <p>CT3. Personal and professional development</p> <ul style="list-style-type: none"> to have opening to lifelong learning, to be aware for self-study as a basis of personal autonomy and professional development; to derive the optimum and creative potential in their own collective activities; to know how to use information and communication technologies.
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7. DISCIPLINE OBJECTIVES (based on the grid of specific competences acquired)

7.1 The general objective of the discipline	<ul style="list-style-type: none"> - Training students in the knowledge of the etiology and pathogenetic mechanisms of human diseases with infectious etiology, which will be studied in the disciplines of infectious diseases, internal medicine, surgery, obstetrics-gynecology, pediatrics, dermato-venereology. - Forming a medical thinking of students to create the premises for understanding other preclinical and clinical disciplines - Study of the main pathogenic genera and parasitic species, involved in human medical and surgical pathology. - Knowledge of the normal and pathological microbiota of man. - Knowledge of methods for preventing, treating and combating human parasitic infections
7.2 The specific objectives of the discipline	<p>At the end of the study program, based on the curriculum adapted to European quality standards, through the teaching and assessment methods used, students must have the following cognitive skills and practical skills:</p> <p>COGNITIVE SKILLS</p> <ul style="list-style-type: none"> - to describe the morphology and biological cycle of parasites; - to know the mechanisms of the infectious process related to the pathogenicity of the parasites and to the defense mechanisms of the organism; - to be able to distinguish pathogenic parasitic agents from conditionally pathogenic and non-pathogenic ones from all bacteria / fungi; - to know the structure and the mode of action of the antiparasitic chemotherapies on the parasites; - to know the non-specific and specific means of defense of the human body against parasitic agents; - to have notions about active and passive immunoprophylaxis of parasitic infections. <p>PRACTICAL SKILLS</p> <ul style="list-style-type: none"> - to know the methods used in the laboratory diagnosis of infectious diseases (parasitological diagnosis). Learning the principles of sampling, transport and processing of samples for laboratory examination. - to know the principles of cultivation and identification of microorganisms. - to be able to read and interpret the microbiological analysis bulletin with the clinical significance of a possible pathogen.

8. CONTENTS

8.1 COURSES (CONTENT UNITS)	14 hours
1. Define the notions of parasitology, parasite and host. Reciprocal relationships between the parasite (the influence of the parasite life on the parasite, the parasite action on the host, the factors that cause the parasite to enter the host, the spatial and temporal relationships) and the host (cell reactions, tissue reactions, hypereosinophilia, immunonspecific and specific reactions). Classification of parasites	2
2. Morphology, biological cycle, pathogenic clinical manifestations, laboratory and differential diagnosis, treatment, epidemiology and prophylaxis in diseases with: Amoeba: Entamoeba histolytica, Entamoeba coli, Naegleria fowleri, Acanthamoeba sp., Blastocystis hominis. Cavitary flagellates: Giardia intestinalis, Trichomonas vaginalis, Trichomonas hominis	2

3. Blood and tissues flagelates: Leishmania donovani. Sporozoa: Plasmodium sp., Toxoplasma gondii, Isospora sp., Cryptosporidium sp. Ciliates: Balantidium coli	2
4. Trematoda: Fasciola hepatica, Dicrocoelium dendriticum, Opistorchis felinus. Cestoda (I): Taenia solium, Taenia saginata	2
5. Cestoda (II): Echinococcus granulosus, Echinococcus multilocularis, Diphyllbotrium latum, Hymenolepis nana, Hymenolepis diminuta, Dipylidium caninum	2
6. Nematoda (I): Ascaris lumbricoides, Enterobius vermicularis, Trichuris trichiura, Ancylostoma duodenale, Necator americanus, Strongyloides stercoralis	2
7. Nematoda (II): Larva migrans visceralis, Larva migrans cutanata, Trichinella spiralis. Ectoparasites, intermediate hosts and vectors	2
REFERENCES 1. Maria Bălășoiu, Ovidiu Zlatian, Oana Cristea, Andrei Theodor Bălășoiu – „Medical Parasitology”, Editura Medicală. Universitară, Craiova, 2020	
8.2 Practical laboratory (topics / themes)	14 hours
1. Laboratory diagnosis of parasitosis produced by cavitary protozoa: Entamoeba histolytica, Entamoeba coli, Giardia intestinalis, Trichomonas urogenitalis	2
2. Laboratory diagnosis of parasitosis produced by blood and tissue protozoa: Leishmania donovani, Toxoplasma gondii, Cryptosporidium sp.	2
3. Laboratory diagnosis of parasitosis produced by Sporozoa: Plasmodium sp. și Trematode: Fasciola hepatica, Dicrocoelium dendriticum.	2
4. Laboratory diagnosis of parasitosis produced by Cestoda (Taenia solium, Taenia saginata, Echinococcus granulosus, Echinococcus multilocularis, Diphyllbotrium latum, Hymenolepis nana, Hymenolepis diminuta, Dipylidium caninum).	2
5. Laboratory diagnosis of parasitosis produced by Nematoda (Ascaris lumbricoides, Enterobius vermicularis, Trichuris trichiura, Ancylostoma duodenale, Strongyloides stercoralis, Trichinella spiralis).	2
6. Parasitological exam of uro-genital secretions; importance in medical practice.	2
7. Stool exam for parasites. Review. Recovery.	2
REFERENCES 1. Maria Bălășoiu, Ovidiu Zlatian, Oana Cristea, Andrei Theodor Bălășoiu – „Medical Parasitology”, Editura Medicală. Universitară, Craiova, 2020	

9. CORROBORATING THE DISCIPLINE CONTENT WITH THE EXPECTATIONS OF EPISTEMIC COMMUNITY REPRESENTATIVES, PROFESSIONAL ASSOCIATIONS AND EMPLOYEE REPRESENTATIVES RELATING TO THIS PROGRAM

Microbiology is a fundamental discipline required for a student to become a doctor. Knowledge, practical skills and attitudes learned in this discipline provide the basis for performing the medical act of etiologic diagnosis of infectious diseases based on objective clinical examination and laboratory investigations.

Theory and practical knowledge enables understanding of disease pathogenesis caused by bacterial, viral, parasitic and fungal agents. The results of laboratory investigations specific to etiology help in monitoring the disease progression and therapeutic option with beneficial effect on patient health.

10. METHODOLOGICAL LANDMARKS

Types of activity	Techniques of teaching / learning materials and resources: lecture, interactive group work, brainstorming, learning problems / projects etc.
Course	Teaching based on imaging support (video projector), lecture, heuristic conversation, debate, clinical problems
Practical work	Practical demonstrations, dialogue, presentation of macroscopic and microscopic preparations, control of acquired knowledge, practical applications, problem solving, heuristic conversation
Individual study	The students are given guidelines about organizing the study time, learning techniques, working memory training and avoiding procrastination.
In special situations (alert state, emergency state and other types of situations which limit the physical presence of people) the activity can be done also online by using computer platforms agreed by the university. The online educational process will be adapted to ensure the accomplishment of all objectives from the discipline sheet.	

11. RECOVERY PROGRAM

Absences recoveries	No. absences that can recover	Location of deployment	Period	In charge	Scheduling of topics
	3	Discipline Headquarters	End of Semester	Teaching staff of the discipline	Depending on the absences

		/ Online environment			
Schedule consultations Students' circle	2 hours/week	Discipline Headquarters/ Online environment	Weekly	Teaching staff of the discipline	According to the internal schedule
Program for students poorly trained	2 hours/semester	Discipline Headquarters/ Online environment	Last two weeks	Teaching staff of the discipline	According to the internal schedule /Achievement of specific objectives
12. ASSESSMENT					
Activity	Types of assesment		Method of evaluation		Percentage from final grade
Curs	Formative assesment during the semester Summative assesment during the exam		Exam (oral)/ sistem „face to face” with online video platform		75%
Lucrări practice	Formative assesment during the semester Periodic assesment during the semester Summative assesment in the last week of the semester		Exam (oral)/ sistem „face to face” with online video platform		15%
Periodic assesment					5%
Assesment of individual activities					5%
Minimum performance standard					at least 50% for each component of the evaluation
13. GUIDANCE AND COUNSELLING PROGRAMS					
Professional guidance and counselling programs (2 hours/monthly)					
Scheduling the hours			Location		In charge
Last Friday of every month			Discipline headquarters/online		Teaching staff of discipline

Endorsement date in the department: 27.09.2022

Department Director,
Prof. Eugen OSIAC

Coordinator of study program,
Prof. Marius Eugen CIUREA

Discipline holder,
Prof. Maria BĂLĂȘOIU