SYLLABUS

Academic year 2024 - 2025

1. Details about the program

1.1. Higher Education Institution	**„Lucian Blaga" University of Sibiu**
1.2. Faculty	Faculty of Sciences
1.3. Department	Environmental Sciences, Physics, Physical Education and Sports
1.4. Field of study	Biology
1.5. Study cycle[1]	Bachelor
1.6. Specialization	Biology

2. Details about the course

2.1. Course name	**PARASITOLOGY**			Code	FSTI.MFE.BIOEN.L.SO.6.2020.E-4.3
2.2. Course coordinator	Priporeanu – Gritu Miruna Elena, PhD				
2.3. Practical activity coordinator	Priporeanu – Gritu Miruna Elena, PhD				
2.4. Year of study[2]	III	2.5. Semester[3]	5	2.6. Type of assessment[4]	E
2.7. Type of discipline[5]	O	2.8. Formative category of the discipline[6]			S

3. Estimated total time

3.1. Proportion of the discipline within the curriculum – *number of hours / week*					
3.1.a.Lecture	3.1.b. Seminar	3.1.c. Laboratory	3.1.d. Project	3.1.e Other	Total
2		2			**4**
3.2. Proportion of the discipline within the curriculum – *number of hours / week*					
3.2.a.Lecture	3.2.b. Seminar	3.2.c. Laboratory	3.2.d. Project	3.2.e Other	Total[7]
24		24			**48**

Allocation of time budget for individual study [8]	**No. hours**
Study based on textbook, lecture notes, bibliography and course notes	20
Additional research: library, specialized electronic platforms and field or on-site investigation and documentation	10
Preparing for the seminar / laboratorires, home assignments, reports, portfolios and essays	12
Tutoring[9]	4
Examinations[10]	6
3.3. Total number of hours for individual study [11] ***(NOSI$_{sem}$)***	**52**
3.4. Total number of hours in the curriculum (*NOAD$_{sem}$*)	**48**
3.5. Total number of hours per semester[12] **(*NOAD$_{sem}$* + *NOSI$_{sem}$*)**	**100**
3.6. No of hours / ECTS	**25**
3.7. Number of credits[13]	**4**

4. Prerequisites (if applicable)

4.1. Prerequisite courses for enrollment to this subject (from the curriculum) [14]	Invertebrate Biology
4.2. Competencies	

5. Requirements (wherever applicable)

5.1. Lecture organization and structure[15]	Classroom with video projector
5.2. Organization and structure of practical activities (lab/sem/pr/other) [16]	Laboratory with microscopes; microscopic and macroscopic specimens

6. Specific competencies[17]

Number of credits assigned to the discipline[18]		4	Distribution of credits according to competencies[19]
6.1. Professional competencies	CP1	The ability to understand and reproduce the terms, concepts, and principles of parasitology. Acquisition of knowledge related to the co-evolution of parasite-host as a balanced system.	1
	CP2	The ability to communicate using the specific language of parasitology, to explain and interpret the life cycles specific to various classes of parasites. Development of analytical and synthesis skills.	1
	CP3	The ability to identify different classes of parasites and the changes they induce in parasitized hosts.	0,5
6.2. Transversal competencies	CT1	The ability to collaborate with specialists from other fields.	0,5
	CT2	Demonstration of positive and responsible attitudes towards the scientific field.	0,5
	CT3	Active engagement in continuous professional development; participation in scientific research activities related to the discipline.	0,5

7. Course objectives (reflected by the framework of specific competencies)

7.1. General objective	Knowledge of the main groups of parasites, their hosts, and the host-parasite relationships, as well as the interactions between the two categories of organisms, with implications regarding life cycle strategies, immunity, and specific adaptations. Presentation of the general issues of parasitism, including the origin and distribution of parasitic organisms within the animal and plant kingdoms.
7.2. Specific objectives	Identification of various groups of parasites, knowledge of the methods for their identification, as well as the means of prevention and control.

8. Course description

8.1. Lecture[20]	**Teaching methods[21]**	**No. of hours**
Lecture 1 Parasites and parasitism, general concepts.	Explanation, demonstration, interactive dialogue	2
Lecture 2 Parasites and the behavior of parasitized organisms.	Explanation, demonstration, interactive dialogue	2

Lecture 3 Life cycle strategies – developmental cycles.	Explanation, demonstration, interactive dialogue	2
Lecture 4 Adaptations to parasitism – morphological and physiological adaptations of different classes of parasites to parasitic life.	Explanation, demonstration, interactive dialogue	2
Lecture 5 Parasitic protozoa – species, developmental cycles.	Explanation, demonstration, interactive dialogue	2
Lecture 6 Parasitic cestodes – species of parasitic cestodes, developmental cycles.	Explanation, demonstration, interactive dialogue	2
Lecture 7 Parasitic trematodes – Biology of trematodes, parasitic species, and their developmental cycles.	Explanation, demonstration, interactive dialogue	2
Lecture 8 Parasitic nematodes: biology, developmental cycles.	Explanation, demonstration, interactive dialogue	2
Lecture 9 Parasitic arthropods: biology, developmental cycles, their role as vectors of other parasites.	Explanation, demonstration, interactive dialogue	2
Lecture 10 Diagnosis in parasitic diseases. Parasite control – classical control methods; integrated control.	Explanation, demonstration, interactive dialogue	2
Lecture 11 Conventional methods used in the treatment of parasitic infections. Traditional approaches in ethnomedicine. Phyto parasites; biological control methods.	Explanation, demonstration, interactive dialogue	2
Lecture 12 Parasites and immunity; parasites used in treatments	Explanation, demonstration, interactive dialogue	2
	Total number of lecture hours:	**24**

8.2. Practical activities (8.2.a. Seminar[22]/ 8.2.b. Laboratory[23]/ 8.2.c. Project[24] / 8.2.d. Other practical activities[25])	**Teaching methods**	**No. of hours**
Lab 1-2: Collection, packaging, and transportation of parasitological samples.	Explanation, demonstration, interactive dialogue, use of diagrams, brainstorming, debate	4
Lab 3-4: Techniques used in the identification of parasites and the changes they induce.	Explanation, demonstration, interactive dialogue, use of diagrams, brainstorming, debate	4
Lab 5-6: Main diagnostic methods in parasitology.	Explanation, demonstration, interactive dialogue, use of diagrams, brainstorming, debate	4
Lab 7-8: Blood collection, preparation of smears.	Explanation, demonstration, interactive dialogue, use of diagrams, brainstorming, debate	4
Lab 9-10: Microscopy – observation of parasites and their eggs under the microscope.	Explanation, demonstration, interactive dialogue, use of diagrams, brainstorming, debate	4
Lab 11: Visits to specialized laboratories.	Explanation, demonstration, interactive dialogue, use of diagrams,	2

	brainstorming, debate	
Lab 12 Practical exam		2
Total number of hours: seminar/laboratory		**24**

9. Bibliography

9.1. Recommended references	Dresner, L. M., 2016, Textbook of Medical Parasitology.
	Fink, U., 2016, A Textbook Of Parasitology.
9.2. Additional references	

10. Correlating the course description with the expectations and requirements of representatives of the epistemic community, professional associations and significant employers and stakeholders related to the study program and the specific area[26]

The content of the course allows students to acquire theoretical and practical skills related to the main categories of parasites, which are necessary in specialized laboratories (medical parasitology laboratories, plant protection, etc.).

11. Evaluare

Type of activity	11.1 Assessment criteria	11.2 Assessment methods		11.3 Percentage of the final grade	Notes.[27]
11.4a Exam / Coloquium	• Theoretical and practical knowledge (quantity, correctness,accuracy)	Midterm / ongoing assignments[28]:	%	67% (minimum 5)	
		Home assignments:	%		
		Other activities[29]:	%		
		Final assessment:	% (min. 5)		
11.4b Seminar	• Frequency/relevance of contributions or answers	Proof of contributions, portfolio (scientific papers, syntheses)		% (minimum 5)	
11.4c Laboratory	• Knowledge of equipment, methods of using specific instruments and tools; assessment of tools or achievements, processing and interpretation of results	• Written questionnaire • Oral examination • Laboratory notebook, experimental work, scientific papers, etc. • Practical demonstrations		33% (minimum 5)	
11.4d Project	• Quality of achieved project, accuracy of project documentation, rationale and evidence of selected solutions	• Self-assessment, project submission and/or defense • Critical assessment of a project		% (minimum 5)	
11.5 Minimum performance standard[30]					

The course description includes components adapted to SEN (Special Educational Needs) persons, according to their type and degree, at all curricular elements and dimensions (competencies, objectives, course description, teaching methods, alternative assessment), in view of providing and ensuring equitable and fair opportunities to academic education for all students, with special attention to special educational needs.

Date of submission: 09 / 09 / 2024

Date of approval in the Department: 17 / 09 / 2024

	Degree, titlle, first name, surname	**Signature**
Course coordinator	Priporeanu – Gritu Miruna Elena, PhD	
Study program coordinator	Assoc. prof. Ana-Maria Benedek-Sîrbu, PhD	
Director Department	Lecturer Ioan Tăușan, PhD	

[1] *Licență / Master*
[2] *1-4 pentru licență, 1-2 pentru master*
[3] *1-8 pentru licență, 1-3 pentru master*
[4] *Examen, colocviu sau VP A/R – din planul de învățământ*
[5] *Regim disciplină: O=Disciplină obligatorie; A=Disciplină opțională; U=Facultativă*
[6] *Categoria formativă: S=Specialitate; F=Fundamentală; C=Complementară; I=Asistată integral; P=Asistată parțial; N=Neasistată*
[7] *Este egal cu 14 săptămâni x numărul de ore de la punctul 3.1 (similar pentru 3.2.a.b.c.d.e.)*
[8] *Liniile de mai jos se referă la studiul individual; totalul se completează la punctul 3.37.*
[9] *Între 7 și 14 ore*
[10] *Între 2 și 6 ore*
[11] *Suma valorilor de pe liniile anterioare, care se referă la studiul individual.*
[12] *Suma (3.5.) dintre numărul de ore de activitate didactică directă (NOAD) și numărul de ore de studiu individual (NOSI) trebuie să fie egală cu numărul de credite alocat disciplinei (punctul 3.7)* x *nr. ore pe credit (3.6.)*
[13] *Numărul de credit se calculează după formula următoare și se rotunjește la valori vecine întregi (fie prin micșorare fie prin majorare*

$$Nr.credite = \frac{NOCpSpD \times C_C + NOApSpD \times C_A}{TOCpSdP \times C_C + TOApSdP \times C_A} \times 30\ credite$$

Unde:

- NOCpSpD = Număr ore curs/săptămână/disciplina pentru care se calculează creditele
- NOApSpD = Număr ore aplicații (sem./lab./pro.)/săptămână/disciplina pentru care se calculează creditele
- TOCpSdP = Număr total ore curs/săptămână din plan
- TOApSdP = Număr total ore aplicații (sem./lab./pro.)/săptămână din plan
- C_C/C_A = Coeficienți curs/aplicații calculate conform tabelului

Coeficienți	Curs	Aplicații (S/L/P)
Licență	2	1
Master	2,5	1,5
Licență lb. străină	2,5	1,25

[14] *Se menționează disciplinele obligatoriu a fi promovate anterior sau echivalente*
[15] *Tablă, videoproiector, flipchart, materiale didactice specifice, platforme on-line etc.*
[16] *Tehnică de calcul, pachete software, standuri experimentale, platforme on-line etc.*
[17] *Competențele din Grilele aferente descrierii programului de studii, adaptate la specificul disciplinei*
[18] *Din planul de învățământ*
[19] *Creditele alocate disciplinei se distribuie pe competențe profesionale și transversale în funcție de specificul disciplinei*
[20] *Titluri de capitole și paragrafe*
[21] *Expunere, prelegere, prezentare la tablă a problematicii studiate, utilizare videoproiector, discuții cu studenții (pentru fiecare capitol, dacă este cazul)*
[22] *Discuții, dezbateri, prezentare și/sau analiză de lucrări, rezolvare de exerciții și probleme etc.*
[23] *Demonstrație practică, exercițiu, experiment etc.*
[24] *Studiu de caz, demonstrație, exercițiu, analiza erorilor etc*.
[25] *Alte tipuri de activități practice specifice*
[26] *Legătura cu alte discipline, utilitatea disciplinei pe piața muncii*
[27] *CPE – condiționează participarea la examen; nCPE – nu condiționează participarea la examen; CEF - condiționează evaluarea finală; N/A – nu se aplică*
[28] *Se va preciza numărul de teste și săptămânile în care vor fi susținute.*
[29] *Cercuri științifice, concursuri profesionale etc.*
[30] *Se particularizează la specificul disciplinei standardul minim de performanță din grila de competențe a programului de studii, dacă este cazul.*