

Syllabus

Subject

Subject / Group	20135 - Parasitology and Fauna with an Incidence in Health / 1
Degree	Degree in Biology - Fourth year
Credits	6
Period	2nd semester
Language of instruction	English

Professors

Lecturers	Office hours for students					
	Starting time	Finishing time	Day	Start date	End date	Office / Building
Claudia Caterina Paredes						
Esquivel						You need to book a date with the professor in order to attend a tutoring session.
<i>Responsible</i>						
claudia.paredes@uib.es						

Context

This course has been designed considering the One Health perspective, which establishes that the health of humans is connected to the health of animals and the environment (WHO 2018). Although we will study parasites from different animal hosts, human parasites are used as models to understand their biology, pathogenicity and the process of parasitism.

Requirements

Recommended

A basic knowledge of Zoology is recommended, although it is not compulsory

Skills

Specific

- * To understand basic concepts of the epidemiology of parasitic diseases
- * To recognize in a laboratory the most important parasites from tissue and faecal samples
- * To elaborate control strategies for parasitic diseases

Generic

- * To give an oral presentation in English, using the correct terminology of this field of research

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- * To understand scientific literature related to the field of parasitology
- * To write a scientific text in English following internationally-accepted academic criteria

Basic

- * You may consult the basic competencies students will have to achieve by the end of the degree at the following address: <http://www.uib.eu/study/grau/Basic-Competences-In-Bachelors-Degree-Studies/>

Content

Range of topics

Part I. Basic Concepts

- UD1.-Basic concepts in parasitology. Importance. Host-parasite interactions. Interspecific relationships
- UD2.- Epidemiology of parasitic diseases. Prevalence, incidence, morbidity, mortality and other related concepts.

Part II. Diversity of Parasites

- UD3. Intestinal protozoa. Amoebiasis, Giardiasis, Balantidiasis, Coccidiosis, Balantidiasis and Coccidiosis,
- UD4. Tisular protozoa: Malaria and Babesiosis, Toxoplasmosis and Leishmaniasis, American Trypanosomiasis and African Trypanosomiasis, Trichomoniasis
- UD5. Trematodiasis. Fascioliasis, S
- UD6. Parasitic cestodes: Taeniasis, Echinococcosis
- UD7. Parasitic nematodes. Anisakiosis, Filariasis, Soil-transmitted helminths, Trichinelosis, Toxocariasis, heartworms
- UD8. Acanthocephalosis
- UD9. Parasitic arthropods
- UD10. Insects as vectors of human diseases. Vector surveillance and control
- UD11. Host-parasite interactions
- UD12. Neglected Tropical Diseases and international policies related to their control
- UD13. Animal venoms and their effect on human health
- UD14. Unexpected consequences of parasitism: the hygiene hypothesis
- UD15. Parasitology as a scientific career. International centers, funding perspectives

Teaching methodology

During lectures students will have the chance to review some key concepts of the course and prepare themselves for the practicals. Students are strongly recommended to attend the theoretical lectures

In-class work activities (2.4 credits, 60 hours)

Modality	Name	Typ. Grp.	Description	Hours
Theory classes	Oral presentations	Large group (G)	Students are required to prepare and give an oral presentation during the course.	3

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Modality	Name	Typ. Grp.	Description	Hours
Theory classes	Theoretical lectures	Large group (G)	We combine the use of power point presentations with a whiteboard. Students are encourage to participate asking questions and giving their opinions on specific topics.	37
Practical classes	Diagnostic laboratory	Medium group (M)	Practical lectures are focussed on diagnostics, guided during class by the lecturer. A microscope connected to the projector will be used to help diagnosis.	20

At the beginning of the semester a schedule of the subject will be made available to students through the UIBdigital platform. The schedule shall at least include the dates when the continuing assessment tests will be conducted and the hand-in dates for the assignments. In addition, the lecturer shall inform students as to whether the subject work plan will be carried out through the schedule or through another way included in the Aula Digital platform.

Distance education tasks (3.6 credits, 90 hours)

Modality	Name	Description	Hours
Group or individual self-study	Written assignment	Students have to write a scientific abstract following instruction provided by the lecturer	90

Specific risks and protective measures

Even when all pathogens used in practicals are not infective (in formalin), all risks associated with handling parasitic organisms will be explained before starting practical sessions and students will be required to follow all health safety instructions.

Student learning assessment

The evaluation criteria is summarized below:

1. Final exam: 40%
2. Seminar (oral presentation): 30%
3. Practicas and VISU: 20%
4. Written work (10%)

Please notice that the students will have to present a written work (scientific abstract) according to the guidelines in C.E. provided during the course. The mistakes in the use of English will not be evaluated in written assignments, oral presentations or exams; as this is a course that values the student's knowledge on parasitology only.

Punctual translations to Spanish can be done during lectures or exams if students require clarification.

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Frau en elements d'avaluació

In accordance with article 33 of Regulation of academic studies, "regardless of the disciplinary procedure that may be followed against the offending student, the demonstrably fraudulent performance of any of the evaluation elements included in the teaching guides of the subjects will lead, at the discretion of the teacher, a undervaluation in the qualification that may involve the qualification of "suspense 0" in the annual evaluation of the subject".

Oral presentations

Modality	Theory classes
Technique	Papers and projects (retrievable)
Description	Students are required to prepare and give an oral presentation during the course.
Assessment criteria	We will evaluate the scientific content, the quality of the oral and power point presentation and how the students reply to questions asked by their peers and the lecturer

Final grade percentage: 30%with a minimum grade of 5

Theoretical lectures

Modality	Theory classes
Technique	Other methods (retrievable)
Description	We combine the use of power point presentations with a whiteboard. Students are encourage to participate asking questions and giving their opinions on specific topics.
Assessment criteria	The students have to pass a written exam, which will include an objective test (this type of test have clear right or wrong answers. All multiple-choice test fall into this group. The students get a pre-defined set of answers to choose the correct answer from) and a subjective test (which involves writing answers to specified questions).

Final grade percentage: 40%with a minimum grade of 5

Diagnostic laboratory

Modality	Practical classes
Technique	Other methods (retrievable)
Description	Practical lectures are focussed on diagnostics, guided during class by the lecturer. A microscope connected to the projector will be used to help diagnosis.
Assessment criteria	This section will be evaluated with a VISU projected during the exam and/or practical sessions

Final grade percentage: 20%with a minimum grade of 5

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Written assignment

Modality	Group or individual self-study
Technique	Papers and projects (retrievable)
Description	Students have to write a scientific abstract following instruction provided by the lecturer
Assessment criteria	The content and structure of the written assignment will be evaluated.

Final grade percentage: 10%with a minimum grade of 5

Resources, bibliography and additional documentation

Basic bibliography

MOLINEUX, DAVID. 2007. Control of Human Parasitic Diseases. Academic Press. London
ROBERTS,L. and JANOVY, J. 2008. Foundations of Parasitology.

Complementary bibliography

ASH L.R. & ORIHTEL T.C., 1997.- Atlas of Human Parasitology. 4^a. Edition. American Society of Clinical Pathologist (ASCP) Press, Chicago, 424 pp.
KETTLE D.S., 1995.- Medical and Veterinary Entomology. 2^a edition. CAB International, Wallingford.
SCHMID-HEMPEL, PAUL (Review by: Andrea L. Graham). 2012 Evolutionary Parasitology: The Integrated Study of Infections, Immunology, Ecology, and Genetics. The University of Chicago Press

Other resources

WALLACE, PETER.2007. Atlas of Tropical Medicine and Parasitology(Text with CD-ROM). 6th Edition.
www.who.int/
<https://www.cdc.gov/>
<https://ecdc.europa.eu/en/home>

