

## 26781 - Tropical Parasitic Diseases

### Información del Plan Docente

|                  |                                     |
|------------------|-------------------------------------|
| Academic Year    | 2018/19                             |
| Subject          | 26781 - Tropical Parasitic Diseases |
| Faculty / School | 104 - Facultad de Medicina          |
| Degree           | 304 - Degree in Medicine            |
| ECTS             | 4.0                                 |
| Year             | 5                                   |
| Semester         | First semester                      |
| Subject Type     | Optional                            |
| Module           | ---                                 |

### 1.General information

#### 1.1.Aims of the course

#### 1.2.Context and importance of this course in the degree

#### 1.3.Recommendations to take this course

### 2.Learning goals

#### 2.1.Competences

#### 2.2.Learning goals

#### 2.3.Importance of learning goals

### 3.Assessment (1st and 2nd call)

#### 3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

### 4.Methodology, learning tasks, syllabus and resources

#### 4.1.Methodological overview

The subject consists of a **theoretical part**, a **practical part**, **tutorials** and **student work**. For each module, we will explain the theoretical concepts and then we will work the contents in the laboratory practices and seminars.

- The **lectures** will be given as participatory master classes.

- Attendance to **practice sessions** is compulsory. In each class a video about parasitic tropical diseases will watch and discuss and then laboratory practice will be made.

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- In the **seminars**, students will present and discuss clinical cases.

### 4.2. Learning tasks

- **Lectures: Participative lecture (25 hours of theory sessions)**, in which students will learn the basic concepts that will allow him relate the disease with clinical manifestations and watch real and original images of different parasite forms and the effects which they produce in the patients.

- **Practical classes (15 hours of practice sessions)**, in which we will watch a film about parasitic diseases in endemic areas. In these films patients with typical lesions, appropriate treatments and plans of disease prevention and control are shown. Then a debate on the subject of the film will take place. Laboratory practices will consist in microscopic identification of Microscope Slide Whole Mounts and adults of each type of parasite, as technique "gold standard" to establish the diagnosis and treatment.

All students will be informed about the risks that may have the realization of the practices of this subject, and if dangerous products are handled and what to do in case of accident. All students must sign a commitment to comply with working arrangements and safety to make them. For more information, see the information for students of the Unit Occupational [Health and Safety: http://uprl.unizar.es/estudiantes.html](http://uprl.unizar.es/estudiantes.html)

- **Seminars (1.5 onsite sessions)**: Clinical cases will be resolved by the students individually or in groups. Then each group will expose their cases which will be discussed, simulating a clinical session.

- **Tutorial activity**: For any queries students can contact teachers by e-mail, on-line (Moodle platform), phone or visiting their office during the teacher's tutorial times published on the students' gateway

- **ADD**: In ADD (Moodle Platform, ADDUnizar), the students have available didactic support materials.

### 4.3. Syllabus

**Lectures** with the following program:

**MODULE 1.** Introduction to Clinical Parasitology.

**LESSON 1.** Associate basic terms of parasitology with their definitions. Host and parasite types. Life cycles. Transmission routes of parasitic diseases. Nomenclature of parasitic diseases.

**MODULE 2. Intestinal nematode infections.**

**LESSON 2. Ascariasis. Trichuriasis. Hookworm disease. Strongyloidiasis. Enterobiasis.** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention.

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### MODULE 3. Blood and tissue nematode infections.

**LESSON 3. Trichinellosis.** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention.

**LESSON 4. Visceral larva migrans. Cutaneous larva migrans. Anisakiasis.** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention.

**LESSON 5. Dracunculiasis. Lymphatic Filariasis. Cutaneous Filariasis. Serous cavities Filariasis.** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention.

**LESSON 6. Abdominal Angyostrongilosis. Eosinophilic Meningitis.** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention.

### MODULE 4. Cestode infections.

**LESSON 7. Infections caused by adult intestinal tapeworm: Diphyllbothriosis. Diplogonoporiasis. Tapeworm infections cause by Taenia saginata and Taenia solium. Hymenolepiasis. Dipylidiosis.** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention.

**LESSON 8. Larval cestode infections: Hydatidosis. Cysticercosis. Cenurosis. Sparganosis.** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention.

### MODULE 5. Trematoda infections.

**LESSON 9. Lung trematodiasis (Paragonimiasis), biliary trematodiasis (Fascioliasis, Chlonorchiasis, Opisthorchiasis, Dicroceliasis), intestinal trematodiasis (Fasciolopsiasis, Heterofiasis, Metagonimiasis).** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention.

**LESSON 10. Intestinal and urogenital Schistosomiasis.** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention.

### MODULE 6. Intestinal protozoa infections.

**LESSON 11. Amebiasis.** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations of intestinal and extraintestinal forms. Complications. Diagnosis. Treatment. Epidemiology, control and prevention. Other intestinal amoebae: differential diagnosis. **Blastocystiasis.**

**LESSON 12. Balantidiasis.** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention.

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**LESSON 13. Giardiasis. Dientamoebiasis.** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention. Diagnosis of other intestinal flagellates.

**LESSON 14. Cryptosporidiasis. Isosporiasis. Cyclosporiasis. Sarcocystiosis.** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention.

### MODULE 7. Urogenital Protozoa Infections.

**LESSON 15. Trichomoniasis.** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention.

### MODULE 8. Blood and tissue protozoa infections.

**LESSON 16. Malaria.** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations. Malaria in pregnant women. Malaria in children. Diagnosis. Treatment. Epidemiology, Prevention of mosquito bites and chemoprophylaxis. Vaccines: lines of research

**LESSON 17. African Trypanosomiasis (sleeping sickness). American Trypanosomiasis (Chagas Disease).** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention.

**LESSON 18. Visceral Leishmaniasis. Cutaneous Leishmaniasis. Mucocutaneous Leishmaniasis.** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention.

**LESSON 19. Toxoplasmosis.** Geographical distribution. Etiological agents: morphology and cycle. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention.

**LESSON 20. Meningoencephalitis and keratitis caused by free living amoebae.** Etiological agents: morphology and cycle. Geographical distribution. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention.

### MODULE 9. Arthropoda infections.

**LESSON 21. Pediculosis. Tungiasis. Myiasis. Scabies.** Etiological agents: morphology and cycle. Geographical distribution. Pathogenesis. Clinical manifestations. Complications. Diagnosis. Treatment. Epidemiology, control and prevention.

**Practice sessions:** laboratory sessions and visualization and discussion of films about parasitic diseases.

**Seminars:** Based on solving clinical cases in order to relate theoretical and practical concepts.

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**Tutorial activity:** Individuals or in group.

Didactical support material will be available in the web of the subject in the ADD Moodle Platform

### 4.4.Course planning and calendar

Dates classroom sessions: See notice board of the center or ADD

Delivery date of works: See section "Key Dates subject" of this Guide

Theoretical and practical classes: 5th year - 1st semester

Schedules and dates:

- Theoretical classes: Monday, Wednesday and Friday from September 24 (Monday) to November 26 (Monday). From 10:00 to 11:00 hours.

- Seminars: Dates to be agreed between November 20 and 25. 10 to 12 hours

- Practices: Dates to be agreed between October 16-November 20. From 4:00 p.m. to 8:00 p.m.

Date for submission of work Practices:

The deadline for the delivery of the work practices and the exhibition in the seminars, will be communicated at the end of the laboratory practices.

Publication of the score obtained by activities programmed during the course: In the week prior to the exam.

Global Evaluation Exam:

First Call: January 18, 2019; 11:00 hours

Second call: September 4, 2019; 11:00 hours

### 4.5.Bibliography and recommended resources

<http://psfunizar7.unizar.es/br13/egAsignaturas.php?codigo=26781>