FIGHT AGAINST PARASITOSIS

CU characterization:

CU name:
Fight against parasitosis

Scientific area acronym:
PA

Duration:
Semiannual

Working hours:
58

Contact hours:
24.8

ECTS:
2

Observations:
Mandatory UC
1 hour of evaluation is added to the total number of hours.

Teacher in charge and respective teaching load in the CU:
Carla Sousa - 15 hours
João Pinto - 12 hours

Other teachers and respective teaching load in the CU:
Carla Maia - 8 hours
Henrique Silveira - 13 hours
Jorge Seixas - 12 hours
Manuela Calado - 12 hours
Rosa Teodosio - 12 hours
Teresa Novo - 4 hours
Convidado - 10 hours

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Intended learning outcomes (knowledge, skills and competences to be developed by the students):

After this unit, students should be able to:

1. Introduce concepts of eradication, control and elimination of parasitic diseases.
2. Characterize the basic components of parasite control programs, namely: i) treatment and prophylaxis, ii) anti-vector and anti-intermediate host control; iii) health education and community engagement.
3. Describe the tools available for control and address new strategies under experimental development, namely: i) antiparasitic vaccines; ii) genetically modified vectors.
4. Identify the main obstacles to the success of control programs, namely aspects related to their implementation and sustainability.

Syllabus:

- **I.** The global burden of parasitic diseases
- **II.** Fundamental concepts and organizational aspects of control programs
- **III.** Parasite control: prophylaxis and treatment
- **IV.** Control of intermediate hosts
- **V.** Vector control
- **VI.** Demonstration of vector control tools: larval control with Bti
- **VII.** Monitoring of the residual effect of insecticides: cone assays on insecticide treated nets
- **VIII.** Community education programs
- **IX.** New control tools: vaccines and transgenic vectors

Teaching methodologies (including assessment):

Teaching of this course will be based on the lecturing method, translated into 7 theoretical lessons; the demonstrative method, with two laboratory practical classes; and a Seminar given by the students where the active and interrogative methods will be applied. There will also be tutorial sessions to support student's autonomous study and seminar preparation.

Student evaluation will be based on two elements: student performance in the seminar class (weighting factor: 0.6), and a theoretical written exam consisting of 20 multiple choice questions and a development question (weighting factor: 0.4). Approval to the course implies: i) a minimum class attendance of 75%; obtaining a final mark of 10 points (out of a maximum of 20 points).

The 2nd season assessment, for students who fail or who require an improvement in their grade, will be carried out through a written exam consisting of 40 quick-answer questions.

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References for consultation / mandatory existence:

- Molyneux, D.H. (Ed.) (2006). Control of human parasitic diseases. London, UK. Elsevier Molyneux, D.H. (Ed.) (2006). Control of human parasitic diseases. London, UK. Elsevier Academic Press.
- Cook, G.C., and Zumla, A. (Eds.) (2013). Manson¿s Tropical Diseases. 23rd Edition. London, UK: Saunders Elsevier Science, Health Division.
- World Health Organization (2005). Guidelines for laboratory and field testing of mosquito larvicides. WHO/CDS/WHOPES/GCDPP/2005.13
- World Health Organization (2013). Guidelines for laboratory and field testing of long-lasting insecticidal mosquito nets. WHO/HTM/NTD/WHOPES/2013.1