

Course Unit: 9500605 - Microbiology and Parasitology

Year 1 Semester 1 ISCED Code: 512 ECTS: 2,5

Type of Course Unit: Compulsory Delivery Mode: Face-to-face Language of Instruction: Portuguese

COURSE COORDINATOR: Maria Teresa Pereira Gonçalves dos Santos

HOURS OF WORK

TOTAL HOURS	Contact Hours								Hours in autonomous work
	Theory	Theory and practice	Practical and laboratory work	Field work	Seminar	Internship	Tutorial guidance	Other	
70	20	8					4		38

Prerequisites (if applicable): not applicable

LEARNING OUTCOMES (knowledge, skills and competence)

It is expected that the student:

- acquires notions about the beneficial and harmful role of microorganisms in its interaction with the man
- know characterize and identify the leading causes of poisoning and infectious diseases in humans
- know the modes of transmission, symptoms, prevention and control of major human infections

CONTENTS

Introduction to Microbiology and Parasitology. History of Microbiology.
Bacteria, fungi, algae, protozoa and metazoa: Classification. Morphological, physiological and reproductive characteristics. Importance in the environment.
Subcellular infectious agents - Viruses, Viroids, satellite viruses and Prions: Classification. General characteristics and morphology. Importance in the environment.
Microorganisms growth and control.
Microorganisms, infection and disease.
Main Human Infections transmitted by air, food and water and by contact. Symptomatology, treatment, prevention and control.
Nosocomial infections. Acquisition, transmission, prevention and control.

DEMONSTRATION OF THE CONTENTS COHERENCE WITH THE COURSE UNIT'S LEARNING OUTCOMES

Infectious diseases are a real threat shared by all countries and its control and prevention should be considered a universal cause, where nurses have an important role to play.

So with the contents is intended to provide information to act in the treatment, control and prevention of diseases caused by different types of pathogens. Only with the acquisition of basic knowledge on morphological and physiological characterization of the different pathogens as well as on disease transmission, growth of microorganisms and parasites and major physical and chemical ways to control them, we can act in a conscious way in the prevention and control of these diseases.

TEACHING METHODOLOGIES

Lectures. Individual research work on the given topics, followed by group discussions. Analysis and discussion of articles directly related with the topics being studied.

DEMONSTRATION OF THE COHERENCE BETWEEN THE TEACHING METHODOLOGIES AND THE LEARNING OUTCOMES

The acquisition of knowledge by the student through the teaching methodologies proposed, is only perceptible if the student knows expose in an acceptable form, both writing and orally, the themes into question. It is therefore considered that the written tests, theoretical and practical, in which the student demonstrates knowledge of the subject inquired, as well an oral discussion of various issues, confirm that the student can develop and expose the matter under study and constitute a coherent methodology for the objectives of the CU.

EVALUATION METHODS

Realization of written tests and a search work, with its oral presentation. The attendance and participation of students in the proposed activities are also considered.

MAIN BIBLIOGRAPHY

- Barroso, H., Meliço-Silvestre, A., Taveira, N. 2014. Microbiologia Médica. Vol. I e II. Lisboa: Ed. Lidel
- Cruickshank, R. et al. Microbiologia Médica. Vol. I e II. Lisboa: Fundação Calouste Gulbenkian
- Ferreira, W. F. C., J. C. Sousa. 2010. Microbiologia. Lisboa: Ed. Lidel
- Ferreira, W. F. C., J. C. Sousa. 1998. Microbiologia. Vol. 1,2,3. Lisboa: Ed. Lidel
- Pelczar, M. J., E. C. S. Chan e N. R. Krieg. 1993. Microbiology. Concepts and Applications. Nova Iorque: Mc Graw Hill.
- Tortora, G. J., B. R. Funke e C. L. Case. 1993. Introduccion a la Microbiologia. 3ª ed.. Saragoça: Ed. Acribia

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