VNIVERSITAT DE VALÈNCIA

Course Guide
34086 Immunology

COURSE DATA

Data Subject	
Code	34086
Name	Immunology
Cycle	Grade
ECTS Credits	4.5
Academic year	2022 - 2023

Study (s)

Degree	Center	Acad. year	Period
1201 - Degree in Pharmacy	Faculty of Pharmacy	2	Second term
1211 - D.D. Pharmacy and Human Nutrition and Dietetics	Faculty of Pharmacy	2	Second term

Subject-matter

Degree	Subject-matter	Character
1201 - Degree in Pharmacy	20 - Immunology	Obligatory
1211 - D.D. Pharmacy and Human Nutrition and Dietetics	1 - Asignaturas obligatorias del PDG Farmacia-Nutrición Humana y Dietética	Obligatory

Coordination

Name	Department
TOLEDO NAVARRO, RAFAEL	21 - Cellular Biology and Parasitology

SUMMARY

Currently, immunology is one of the areas of greatest interest in the field of biology in general and more specifically in the Health Sciences. In this context, the study of immunology is necessary for the student of pharmacy today. This need is determined by several factors: (i) the immune response is a physiological process central to understanding the functioning of organisms, (ii) the immune response is a process is a key issue in the context of diseases of infectious nature for understanding aspects such as pathology, treatment, etc., (III) immunodiagnostic methods are essential in the current diagnostic laboratory (IV) the immune system abnormalities are a group of diseases of great importance, and (V) the use of pharmacological agents related to the immune system to the treatment and / or prevention of human disease is increasingly prevalent in our environment. Therefore the course aims Immunology give students the necessary knowledge for understanding the immune response as a physiological process and its implication in various diseases, their importance in the relations of the organism to pathogens and their application in the diagnosis, therapy and prophylaxis of diseases.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

Other requirements

Basic knowledge of physiology, anatomy, biochemistry and molecular biology and genetics.

OUTCOMES

1201 - Degree in Pharmacy

- To possess and to understand the knowledge in the different areas of study included in the formation of the pharmacist.
- To apply this knowledge to the professional world, contributing to the development of Human Rights, democratic principles, principles of equality between women and men, solidarity, protection of the environment and promotion of a culture of peace with Gender perspective.
- To know how interpret, value and communicate relevant data in the different aspects of pharmaceutical activity, making use of information and communication technologies.
- Skill to communicate ideas, analyze problems and solve them with a critical mind, achieving team-working abilities and assuming leadership whenever required.
- Development of skills to update their knowledge and undertake further studies, including pharmaceutical specialization, scientific research and technological development, and teaching.
- Skills for oral and written presentations.
- Acquire ability to obtain adequate, diverse and up-to-date information.
- The student must acquire basic knowledge on basic and applied immunology.
- The student must acquire basic knowledge on the immune system.
- The student must acquire knowledge of the application of immunological reactions to the laboratory.
- The student must acquire knowledge of immunopathology and pharmacology of the immune system.
- The student must acquire comprehension of the nature of the biological associations.

The course of Immunologyaims to provide the student with the knowledge necessary for understanding the immune response as a physiological process and its implication in various diseases, their importance in the relations of the organism with pathogens, as well as its application in the diagnosis, therapy and prophylaxis of diseases.

DESCRIPTION OF CONTENTS

1. Module 1: Introduction to Immunology

2.

3. Module 3: Mechanisms of the immune response effectors

4. Module 4: Regulation of the immune response

5. Module 5: Applications of the immune response

6. Module 6: The immune system and disease

WORKLOAD

ACTIVITY	Hours	% To be attended
Theory classes	43,00	100
Tutorials	1,00	100
Seminars	1,00	100
Development of group work	20,00	0
Study and independent work	30,00	0
Preparing lectures	17,50	0
TOTAL	**112,50**	

TEACHING METHODOLOGY

1 .- Group learning with the teacher:

Lectures in theoretical classes, enabling the teacher to organize how to cover and raise the subject, study and influence the most important aspects of each lesson. Each lecture is accompanied by the appropriate graphic material to help consolidate knowledge. The delivery will be theoretical, although it has active student participation through problem solving and practical assumptions raised throughout the course. In this sense, the teacher will explain the points of greatest interest or importance of each topic, while the student should seek information and / or deduced from what is explained of the most accessories. The student will have a script for each of the issues. For all that the course be raised in two stages. Initially, we address basic aspects of immunology that students can reach a proper understanding of the molecular basis of immune response. Subsequently analyzed in a particular immune response as a physiological process to then study different aspects of experimental and diagnostic immunology. Finally, addressing other aspects of interest the various pathologies associated with the immune system. This will be addressed so that students can engage in teaching and to acquire capacity for analysis and resolution of problems and issues of an experimental nature.

2 .- Tutorial:

This encounter or meeting between a teacher and small groups of students in order to exchange information, analyze, guide or assess a problem or project, discuss a topic, discuss an issue, and so on., Useful for academic and personal student. The appropriate mentoring, the student will receive the proposed theme of the seminar to be prepared in groups and present the day set.

3 .- Group work with colleagues (seminar):

In order to foster personal relationships, enhance speaking, share problems and solutions by working with other people during the seminar should be submitted necessarily assigned work in a team (group of 4 persons), which will be evaluated and exposed orally to the other classmates.

EVALUATION

1.- Evaluation of theory: drawing up a compulsory written examination which includes issues like small issues, concepts, reasoning problems or questions, tests, drawings and diagrams etc issues. The content of the theoretical examination of the lessons that include theoretical and practical lessons that. The written exam grade will be a 80% of the final grade, but will be required to obtain a 5 on the exam in order to pass the course.

2.- Evaluation of team work: 10% of the grade will be the final grade in the development, composition and presentation of compulsory work (seminar).

3.- Continuous Assessment: 10% of what will constitute the final grade for attendance, class participation, motivation and concerns about the course, and so on.

REFERENCES

Basic

- ABBAS (A.K.), LICHTMAN (A.H.) & POBER (J.S.), 2004.- Inmunología Celular y Molecular (5ª Ed.). Elsevier Science, Barcelona. 560 pp.
- JANEWAY (C.A), TRAVERS (P.), WALPORT (M.) & CAPRA (J.J.), 2000.- Inmunobiología: El sistema inmunitario en condiciones de salud y enfermedad (1ª Ed.). Masson, Barcelona. 656 pp.
- MARGNI (R.A.), 1996.- Inmunología e Inmunoquímica. Fundamentos (5ª Ed.). Editorial Médica Panamericana, Madrid. 976 pp.
- PARHAM (P.), 2006.- Inmunología (2ª Ed.). Editorial Médica Panamericana, Madrid. 469 pp.
- REEVES (G.) & TODD (I.). 2000.- Lecture Notes on Immunology (4th Ed.). Blackwell Science, Oxford. 267 pp.
- REGUEIRO (J.R.) & LOPEZ-LARREA (C.), 2004.- Inmunología. Biología y patología del sistema inmune (3ª Ed.). Editorial Médica Panamericana, Madrid. 218 pp.
- ROITT (I.) & DELVES (P.J.), 2003.- Inmunología: Fundamentos (10ª Ed.). Editorial Médica Panamericana, Madrid. 559 pp.
- ROITT (I.), BROSTOFF (J.) & MALE (D.), 2000.- Inmunología (5ª Ed.). Ediciones Harcourt S.A., Madrid. 423 pp.
- SANCHEZ-PEREZ (M.) (Edit.), 1997.- Introducción a la inmunología humana. Editorial Síntesis, Madrid. 383 pp.