COURSE OUTLINE

1. GENERAL

SCHOOL	SCHOOL OF NATURAL SCIENCES		
DEPARTMENT	BIOLOGY		
LEVEL OF COURSE	UNDERGRADUATE		
COURSE CODE	**BIO_ANB**	**SEMESTER OF STUDIES**	**7**
COURSE TITLE	**IMMUNOBIOLOGY**		

INDEPENDENT TEACHING ACTIVITIES	**TEACHING HOURS PER WEEK**	**ECTS CREDITS**
Lectures	**2**	
Practical exercises	**3**	
TOTAL ECTS		**6**

COURSE TYPE	Scientific specialized background
PREREQUISITE COURSES:	Formally, there are no prerequisite courses. However, previous knowledge of fundamental principles of Cell and Molecular Biology and Biochemistry are recommended.
TEACHING AND ASSESSMENT LANGUAGE:	Greek
THE COURSE IS OFFERED TO ERASMUS STUDENTS	YES
COURSE WEBPAGE (URL)	https://eclass.upatras.gr/courses/BIO478/

2. LEARNING OUTCOMES

Learning outcomes

The desired learning outcomes are the familiarization of students with the basic concepts of Immunobiology and the understanding of the organization and function of the immune system, at the molecular and cellular level. The students should use the knowledge acquired from previous courses in order to gain a complete understanding of the mechanisms of innate and specific immune responses and their role in the occurrence of diseases. Upon successful completion of the course, the students will have acquired skills in understanding the role of the immune system in health and disease.

General Abilities

- *Search for, analysis and synthesis of data and information, with the use of the necessary technology*
- *Working independently*
- *Team work*
- *Production of new research ideas*

3. COURSE CONTENT

- Introduction to the immune system
- Innate immunity
- Antigen capture and presentation to lymphocytes
- Antigen recognition in the adaptive immune system
- T-cell mediated immunity
- Effector mechanisms of T cell-mediated immunity
- Humoral immune responses
- Effector mechanisms of humoral immune responses
- Immunological tolerance and autoimmunity
- Immune responses against tumors and transplants

- Hypersensitivity
- Congenital and acquired immunodeficiencies

4. TEACHING AND LEARNING METHODS - ASSESSMENT

TEACHING METHOD	Face-to-face
USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	Yes
TEACHING ORGANIZATION	

Activity	***Semester workload***
Lectures	**26**
Laboratory practice	**12**
• Study & analysis of bibliography • Writing essays • Tutorials	**112**
Total number of hours for the course (25 hours of work-load per ECTS credit)	***150***

STUDENT ASSESSEMENT	Written exams at the end of the semester. Grading scale: 1-10. Passing grade: 5

5. RECOMMENDED LITERATURE

Recommended bibliography:

- AK Abbas *et al*. Basic Immunology: functions and disorders of the immune system [2019]
- Janeway's Immunobiology [2022]

Recommended scientific journals:

Immunity, Nature Immunology, Science Immunology, Journal of Experimental Medicine, Journal of Immunology, European Journal of Immunology, Journal of Leukocyte Biology, Frontiers in Immunology, Nature Reviews Immunology, Trends in Immunology, Current Opinion in Immunology.