

COURSE OUTLINE

1. GENERAL

SCHOOL	Animal Sciences		
DEPARTMENT	Animal Production		
TYPE	Undergraduate – Elective		
CORSE CODE NUMBER	310	Semester	4°
COURSE TITLE	Immunology		
ACTIVITIES INCLUDED IN THE COURSE		HOURS OF WEEKLY CLASSES	CREDIT UNITS (ECTS)
Theory		2	2
Practical Exercises		1	1
Total		3	3
LANGUAGE	Greek		
OFFERED TO ERASMUS STUDENTS	Yes (in English)		
WEB PAGE)	https://zp.aua.gr/wp-content/uploads/lessons-catalog/gr/optional/4/%ce%95-4%ce%bf_%ce%91%ce%bd%ce%bf%cf%83%ce%bf%ce%bb%ce%bf%ce%b3%ce%af%ce%b1.pdf		
TEACHING PERSONNEL	John Ikonomopoulos (Responsible for the Course) Ariadne Hager		

2. EDUCATIONAL OUTCOMES

<p>The course aims to acquaint students with basic concepts of immunology, the main mechanisms of immune response to microbial and parasitic pathogens and the prevention of the corresponding diseases by the use of vaccines.</p> <p>The expected learning outcome is the acquisition of a satisfactory level of knowledge regarding:</p> <p>The basic immune response mechanisms and understand the differences between them</p> <p>The cellular elements and organs of the immune system.</p> <p>The mechanism of immune response to microbial pathogens.</p> <p>Strengthening an organism's immunity by vaccination and understanding the conditions that affect its effectiveness.</p> <p>The implementation of immune protection and strengthening measures at breeding level.</p>
General Skills

3. SYLLABUS (COURSE CONTENTS)

<p>Lectures (Ariadne Hager)</p> <p>i. Concepts of innate - acquired immunity: introduction ii. Organs of the immune system iii. Mechanisms of innate immunity, cell types involved. Role of complement iv. Mechanisms of</p>

acquired immunity: (a) Humoral immunity and antibodies (b) Cellular immunity. Function and role of T cells. v. Role of cytokines. Inflammation vi. Pathogen neutralization mechanisms vii. Hypersensitivity reactions and tolerance viii. Immunoprophylaxis ix. Resistance to the immune system. Fish immune system differences x. Immunity in the fetus-newborn xi. Immunosuppression

Exercises (John Ikononopoulos)

i. Activation of the body's defenses ii. Lymphocyte activation and differentiation iii. Lymphocyte receptors iv. Immunity and vaccines

4. EDUCATIONAL METHODS – EVALUATION

METHOD.	<p>Lectures: In class teaching.</p> <p>Exercises: Interactive learning through the Eclass training platform.</p>	
TEACHING STRUCTURE	Activity	Semester Workload
	Lectures	26
	Exercises	14
	Essay	5
	Study and analyse the literature	10
	Independent study	20
	Total	75 h
EVALUATION OF STUDENTS	<p>Assessment language Greek or, for Erasmus students, English.</p> <p>The material is examined separately for theory and laboratory exercises. The exam in both cases is done through Eclass (randomized selection of questions from a database).</p> <p>A grade premium system is applied for laboratory exercises and theory based on the grade of the work that the student voluntarily undertakes. The criteria of the student award and evaluation system are posted and continuously available to students via E-class.</p> <p>Erasmus students are examined through assignments and a written exam.</p>	

5. Recommended literature

- Veterinary Immunology Ian R. Tizard
- MSD Veterinary Manual. <https://www.msddvetmanual.com/>
- Journal of veterinary immunology and immunopathology.