

<b>POLI</b> ESCOLA SUPERIOR SAÚDE <b>TÉCNICO</b> <b>GUARDA</b>	<b>SUBJECT DESCRIPTION</b>	<b>MODELO</b> PED.015.03
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<i>Course</i>	<b>Pharmacy</b>					
<i>Subject</i>	<b>Immunology and Pathophysiology</b>					
<i>Academic year</i>	2023/2024	<i>Curricular year</i>	2nd	<i>Study period</i>	1st semester	
<i>Type of subject</i>	Compulsory	<i>Student workload (H)</i>	Total: 162	Contact: 30T 30TP 7.5S 7.50T	<i>ECTS</i>	6
<i>Professor(s)</i>	Elsa Maria Pereira de Oliveira Cardoso					
<input checked="" type="checkbox"/> <i>Area/Group Coordinator</i> <input type="checkbox"/> <i>Head of Department</i>		(select)	Elsa Maria Pereira de Oliveira Cardoso			

## PLANNED SUBJECT DESCRIPTION

### 1. LEARNING OBJECTIVES

- O1 – Understand the main pathophysiological mechanisms inherent to disease processes;
- O2 – Describe the human body's reactions to pathological processes;
- O3 – Understand the functioning of the immune system and its interaction with the different systems and organs of the human body;
- O4 – Know the bases of the pathophysiological process of the main diseases of the human system;
- O5 – Develop the ability to analyze scientific texts, self-learning, research, and choice of adequate information.

### 2. PROGRAMME

- 1) Fundamentals concepts of pathology. Cellular adaptation, injury, and death
- 2) Innate and Adaptive Immunity
- 3) Inflammation, tissue repair and wound healing
- 4) Disorders of immune response
- 5) Disorders of neuronal function
- 6) Disorders of the hematopoietic system
- 7) Disorders of cardiovascular function
- 8) Disorders of respiratory function
- 9) Disorders of renal and urinary function
- 10) Disorders of gastrointestinal function
- 11) Disorders of endocrine function
- 12) Disorders of reproductive function
- 13) Disorders of musculoskeletal and integumentary function

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### 3. COHERENCE BETWEEN PROGRAMME AND OBJECTIVES

With the study of the different programme contents, it is intended to attain the proposed objectives. With the point 1) it is intended to attain the objective O1; with the point 2) and 3) the objectives O2, O3, and its integration with objective O4. With points 4) to 13) the objectives O4 and O5.

In this CU it is promoted the interest in autonomous learning, through continuous research in technical books and scientific journals, namely during the preparation of a seminar subject to evaluation.

### 4. MAIN BIBLIOGRAPHY

- Arosa, F. A., Cardoso, E. M., Pacheco, F. C. (2012). Fundamentos de Imunologia (2ª edição). LIDEL. ISBN: 9789727578566.
- Cardoso, E. M. (2022). Sebenta para as Aulas Teórico-Práticas: Exercícios e Casos Clínicos. 2º Ano da Licenciatura em Farmácia. UC de Imunologia e Fisiopatologia. ESS/IPG.
- Kumar, V., Abbas, A. K., Aster, J. C. (2016). Robbins & Cotran Patologia - Bases Patológicas das doenças (9ª edição). Elsevier Editora Lda. ISBN: 9788535281637.
- Norris, T. L. (2021). PORTH - Fisiopatologia (10ª edição). Guanabara Koogan. ISBN: 9788527737432
- VanPutte, C. L., Regan, J. L., Russo, A. F. (2016). Anatomia e Fisiologia de Seeley (10ª edição). Mac GrawHill. ISBN: 9788580555882.

### 5. TEACHING METHODOLOGIES (INCLUDING EVALUATION)

The CU includes T, TP and S components. The T and TP evaluation have a weighting of 80% and the S evaluation had a weighting of 20% in the final average. The T and TP components include 2 written tests, with a weighting of 40% each in the final average.

Failure to be approved during continuous assessment implies taking an exam that includes all syllabus and is the final classification (100%). The approval of CU is achieved with a final grade of at least 9.5, on a scale 0-20.

### 6. COHERENCE BETWEEN TEACHING METHODOLOGIES AND OBJECTIVES

The teaching methodologies are consistent with the objectives of the CU. Theoretical lectures with a more expositive methodology, although always participative, are the first approach of the contents, where students were encouraged to ask questions, and make reasoning based on the knowledge they acquired during the semester, are essential to achieve the objectives related to knowledge and

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memorization of concepts. On the other hand, in the TP classes where exercises are solved, practical cases are discussed and documents and scientific papers are analyzed, related to knowledge acquired in lectures, enabling a continuous critical thinking in problem solving, are important to achieve the objectives related with programme content taught. The preparation and presentation of a seminar in classes S promotes the responsibility of students in search for information and allows them to develop autonomy and to consolidate the objectives related of the curricular unity.

## 7. ATTENDANCE

The approval of this curricular unit (continuous assessment or final exam) requires participation and attendance, with a mandatory minimum attendance of 75% in TP and S classes. Students with Special Statutes and Conditions (e.g., worker-student status) are governed by the benefits provided for in the legislation.

## 8. CONTACTS AND OFFICE HOURS

Elsa Maria Pereira de Oliveira Cardoso | elsa.cardoso@ipg.pt | Office 4 | Phone number 271205220, Extension 7204 | Office hours: Mondays 14:00-16:00h, Wednesdays 14:00-16:00h

## DATE

**21 de setembro de 2023**

## SIGNATURES

Area/Group Coordinator

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(signature)

Professor

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(signature)