

SUBJECT DESCRIPTION

Course	Education and Social Gerontology					
Subject	Biology of Aging					
Academic year	2023-24	Curricular year	1st	Study period	1st semester	
Type of subject	Compulsory	Student workload (H)	Total: 112,5	Contact: 45	ECTS	4,5
Professor(s)	Maria Eduarda Revés Roque da Cunha Ferreira					
Area/Group Coordinator Head of Department		Maria Eduarda Revés Roque da Cunha Ferreira				

PLANNED SUBJECT DESCRIPTION

1. LEARNING OBJECTIVES

Know Understand fundamental concepts: regulation, homeostasis, adaptation, quality of life and its implications;

Recognize the cell as the body's biological system;

Acquire fundamental concepts of human anatomophysiology;

Recognize the interdependence of the systems that make up the human organism;

Understand the biological process of aging;

Understand how aging on a physical level affects other dimensions of life;

Develop reflective critical attitude about scientific knowledge and its challenges.

2. PROGRAMME

Concepts: regulation, homeostasis, adaptation, quality of life and its implications.

Cell Biology

Life cycle: concept and steps

Organism in balance: neurohormonal system, immune system, skin and attachments, cardiorespiratory system, gastrointestinal system, excretory system.

The biology of aging

- Concept of biological aging
- Individual differences and aging
- Theories of biological aging

- Aging processes of the various biological systems of the body and related diseases

Healthy aging vs Quality of life of the elderly

3. COHERENCE BETWEEN PROGRAMME AND OBJECTIVES

This subject is structured in such a way that there is an articulated correspondence between the objectives and the curricular contents to promote the knowledge and understanding of concepts, cellular phenomena, physiological processes of the systems of the organism, biological process of aging, as well as analysis and reflection on the relationship of these biological phenomena with the lifestyle and promotion of the well-being of the old person.



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4. MAIN BIBLIOGRAPHY

Berger, L., Mailloux-Poirier (1995). *Pessoas Idosas – Uma abordagem global*. Lusodidacta, Lisboa.

Freitas, E.V. et al. (2006). *Tratado de Geriatria e Gerontologia*. Rio de Janeiro: Guanabara Koogan .

Junqueira, L.C., & Carneiro, J. (2008). *Histologia Básica.* Rio de Janeiro: Editora Guanabara. Netto, M.P. (2002). Gerontologia – *A velhice e o envelhecimento em visão globalizada.* Atheneu, *São Paulo*.

Ribeiro O., & Pául, C. (2011). *Manual de Envelhecimento Activo*. Lisboa: Lidel Ramos, L. R.& Neto, J.T. (2005) *Geriatria e Gerontologia*. São Paulo: Ed. Manole.

Seeley, R. R., Stephens, T. D., Tate, P. (2007). *Anatomia e fisiologia*. 6a edição, Lisboa: Lusociência.

Spirduso, W.W. (2004). *Dimensões Físicas do Envelhecimento*. São Paulo: Ed. Manole. São disponibilizados apontamentos do Professor.

5. TEACHING METHODOLOGIES (INCLUDING EVALUATION)

The teaching and learning process is based on cooperative and self-regulated /earning. It is centered on the student, respecting his individuality, potentialities, and difficulties. Several educational resources are used. Among the methodologies used we highlight exhibition/interactive lessons, laboratory classes, individual and group work, promoting research and individual and collective reading of documentation/papers. Several auxiliary means of learning will be used, such as: schemes in the framework, anatomical models, multimedia media, texts of different origin for reflection and discussion, among other strategies. Evaluation will take place according to a dynamic and continuous process. The evaluation of subject, agreed with the students, covers the following parameters: knowledge assessment sheet (65%), portfolio (30%) and attendance (5%).

6. COHERENCE BETWEEN TEACHING METHODOLOGIES AND OBJECTIVES

The purpose of this methodologies is to develop the student from an educational/training perspective, making them increasingly autonomous, reflective, self-regulating, and capable of making a critical assessment of information related to the curricular content. The aim is to provide a global and coherent vision of the anatomy and physiology of the body's systems in homeostatic balance and its ageing process, understanding the role of behaviour and lifestyle in the body's functional reserve. Interactive discussion is promoted with a view to questioning and interpreting anatomophysiology and phenomena intrinsic to ageing and applying this knowledge to problem situations.

7. ATTENDANCE

Agreement with the programme of the ESECD. Attendance at lessons is compulsory.

8. CONTACTS AND OFFICE HOURS

eroque@ipg.pt Wednesday: 14:30h-17:30h

DATE 19 de setembro de 2023



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MODELO

PED.012.03

SIGNATURES

Professor(s), Area/Group Coordinator or Head of Department signatures

Professor

uar? R. R. Ane C. Demigo

(signature)