

**Course Unit: Codes: 956327 - Exercise, Nutrition and Health**

Year 2 Semester 3 ISCED Code: 1014 ECTS: 4,0

Type of Course Unit: Compulsory Delivery Mode: Face-to-face Language of Instruction: Portuguese

COURSE COORDINATOR: João Alberto Mendes Leal

**HOURS OF WORK**

| TOTAL HOURS | Contact Hours |                     |                               |            |         |            |                   |       | Hours in autonomous work |
|-------------|---------------|---------------------|-------------------------------|------------|---------|------------|-------------------|-------|--------------------------|
|             | Theory        | Theory and practice | Practical and laboratory work | Field work | Seminar | Internship | Tutorial guidance | Other |                          |
| 100         | 15            | 10                  | 20                            |            |         |            |                   |       | 55                       |

Prerequisites (if applicable): <<Max 500 characters with spaces>>

**LEARNING OUTCOMES (knowledge, skills and competence)**

- Recognize the importance of frequent physical activity and exercise in health;
- Know some of the theories that explain the joining processes in the practice of physical activity;
- Knowing the various food and nutrient groups and types, biological classification and analysis and its use by Man;
- Establish the most significant and current relations between food and health with particular emphasis on the disorders of the energetic metabolism and of body composition;
- Use, in an adequate way, the various body composition assessment techniques; Energy expenditure. Evaluation.
- Use methods for calculating energy expenditure. Evaluation

**CONTENTS**

- <Concepts of exercise, nutrition and health;
- The importance of physical activity for health. Adhesion factors; Practice indices;
- Integrated vision of human nutrition. Daily recommendations of nutrients; Food groups;
- Carbohydrates, Lipids and Proteins: Type, recommended intake. Relation to the exercise;
- Fiber, vitamins, minerals and water: Importance and functions;
- caloric intake and energy expenditure;
- Main methods of assessing body composition. Fat distribution;
- Overweight and obesity: Fat mass index, percentage of body mass, muscle mass and cell mass;
- Basal metabolism: Evaluation; and monitoring the weight loss; role of exercise in weight control;
- Expenditure of energy Physical Activity;
- Supplementation for different types of population and targets;
- Ergogenic effect of various supplements and possible side effects.

**DEMONSTRATION OF THE CONTENTS COHERENCE WITH THE COURSE UNIT'S LEARNING OUTCOMES**

After a brief approach to the concepts related to health, exercise and nutrition, in the first part we seek to demonstrate the importance of physical activity for health and poor adherence to a regular practice of it, referring to some theories that explain it.

Then it proceeds to an approach to various types of nutrients and other elements essential to the functional balance of the body, connecting your intake with physical activity.

Finally, we will develop intervention techniques leading to the assessment of body composition and basal metabolism.

## **TEACHING METHODOLOGIES**

Addressing issues interactively with participation of students after analyzing texts provided in advance;

Practical work in the classroom;

Seminars with external entities;

Search for documents using online libraries of international reference

## **DEMONSTRATION OF THE COHERENCE BETWEEN THE TEACHING METHODOLOGIES AND THE LEARNING OUTCOMES**

The methodologies described above allow not only the theoretical approach to the contents addressed, as well as the research, application of knowledge and acquisition of skills considered essential. For the approach of the various content is not presented almost exclusively through an expository method, we seek the participation of students through early research on the topics to be addressed and also count with the participation of top athletes in various sports, allowing greater perception about the nutritional guidelines used by each

## **EVALUATION METHODS**

The evaluation of this curricular unit comprises the following components: Group work, resulting from the theoretical and practical sessions - held at the course;

Individual work resulting from the analysis of referenced scientific documents in the bibliography recommended for the course;

Written test.

## **MAIN BIBLIOGRAPHY**

ACSM (2018). Diretrizes do ACSM para os testes de Esforço e Prescrição. Guanabara Koogan;

Biesek, S., Alves, L. & Guerra, I. (2005): Estratégias de Nutrição e Suplementação no esporte. Editora Manole Lda;

Instituto Dr. Ricardo Jorge (2006): Tabela da Composição de Alimentos. Editorial do Ministério de Educação;

NSCA (2015). Guia da NSCA para nutrição no exercício e no esporte. Phorte Editora;

Roig, J., Marques, R. (2006): Nutrição e Suplementação – Manz Produções;

Teixeira P, Sardinha L & Barata T. (2008): Nutrição, Exercício e Saúde. LIDEL – Edições Técnicas;

>

Year of implementation: 2018/2019 | Date of approval by the Technical-Scientific Board: 2015-09-01