POLI ESCOLA SUPERIOR TECNOLOGIA GESTÃO TÉCNICO GUARDA	**SUBJECT DESCRIPTION**	**MODELO** PED.013.03

Course	**Graduation in Energy and Environment**					
Subject	**Quality, Planning and Management**					
Academic year	2023/2024	*Curricular year*	3rd	*Study period*	2nd semester	
Type of subject	Compulsory	*Student workload (H)*	Total: 112	Contact: 52,5	*ECTS*	4
Professor(s)	Prof. Expert Manuel António Sobral Campos Jacinto					
☒ *Area/Group Coordinator* ☐ *Head of Department* *(select)*	Prof. Expert Nuno Melo					

PLANNED SUBJECT DESCRIPTION

1. LEARNING OBJECTIVES

The learning objectives are:

• Develop skills that allow, at a conceptual level, to understand the concepts related to project management and the development of its phases;
• Complement specific training in the area of energy and environment with a more transversal set of knowledge;
• Development of analysis and interpretation capabilities of aspects associated with the planning and succinct analysis of investments, which allow them to use project management methods and techniques and operationalize these concepts appropriately;
• Analyze and explore individual and collective work efficiency methodologies;
• Develop the ability to adapt the scientific and technological knowledge acquired to resolve concrete situations.

2. PROGRAMME

Organizations and markets. Type of organizations. Functional organizations. Project organizations. Matrix organizations. Concept of marketing. Target audience concept. Customer needs and requirements.
Investment projects. Project concept. The main phases of a project and the forecast balance.
Planning. Main aspects to consider. Steps to follow in planning. Planning methods. CPM method and cost CPM. Methodology for defining activities. Relationships between activities. Activity levels. Creation of networks with activities on the arrows. Critical path and activity slack. The notion of cost in planning. Resource leveling.
Introduction to MS Office Project. Activity planning. Resource planning. Customization of MSProject documents. Monitoring the execution of activities. Control and closure of the project.
Investment analysis. Basic notions of financial mathematics. Capitalization and updating. Identification and pre-analysis in investment decision processes. Basic concepts for investment analysis. Methodologies. Introduction to investment analysis in multiple objective situations. Investment decisions and cost of capital. Financing source. Investment decisions and cost of capital. Amortization of financing.
Quality management systems in companies. Law Suit. Identification of activities. Process documentation. Definition of performance indicators. Tools and instruments for continuous improvement of organizations' performance.

3. COHERENCE BETWEEN PROGRAMME AND OBJECTIVES

This curricular unit, through the syllabus developed, aims to contribute to the comprehensive training of the student as a person and future professional in an area with great specificity such as the area of energy and environment. It is intended that students obtain knowledge to develop transversal skills within the scope of the course. At the end, the student should be able to independently carry out succinct analyzes of small investment projects and plan the activities involved.

4. MAIN BIBLIOGRAPHY

Miguel, António. 2009. Gestão Moderna de Projetos. Melhores Técnicas e Práticas, FCA Editora de Informática.
Silva, Márcio. 2011. Microsoft Project 2010. Depressa & Bem. Lidel – Edições Técnicas Lda
Barros, Carlos – Decisões de Investimento e Financiamento de Projetos, Editora Sílabo
Cabral, Nuno e Abecassis, Fernando – Análise Económica e Financeira de Projetos, Editora: Fundação Calouste Gulbenkian
Soares, I., Moreira, J., Pinho, C. e Couto, J. – Decisões de Investimento – Análise Financeira de Projetos, Edições Sílabo
Soares, J. O., Fernandes, A. V.; Março, A.A. e Marques, J.P.P. (1999) – Avaliação de Projetos de Investimento na Ótica Empresarial, Edições Sílabo.
B. A. Ranger, P e outros: Gestão, as funções da empresa. Edições Silabo, 1993
Cadilhe, Miguel: Matemática financeira aplicada. Edições Asa, 4ª Edição, 1995
François, A. R.: Organização da empresa, Rés. Editora. Porto
Chiavenato, Idalberto (1987). Administração de Empresas: Uma Abordagem Contingencial. Mc Graw-Hill, São Paulo.
Neves, João Carvalho (1995). Análise Financeira, Métodos e Técnicas. Texto Editora, 8ª Ed..
Santos, Adindo F. (1991). Análise Financeira: Conceitos, Técnicas e Aplicações. INTEF, Economia e Gestão, Lda, Lisboa.

5. TEACHING METHODOLOGIES (INCLUDING EVALUATION)

The teaching of the subject will be carried out through classroom teaching so that students can become familiar with the methodologies and analysis processes. The classes will basically be:
• Of a more theoretical nature with exposition of the subject using audiovisual means of support, analysis and discussion of the program contents.
• Of a more practical nature with the development of practical exercises and group work, specific analysis of questions complementary to the subjects covered, in relation to which the aim is for students to learn how to apply them to concrete situations.
The assessment of students will be carried out continuously based on frequency, through a theoretical-practical test, carrying out research work, solving practical exercises proposed in the tutorial guidance and evaluating the student's general performance in classes, or alternatively through Final exam.

6. COHERENCE BETWEEN TEACHING METHODOLOGIES AND OBJECTIVES

To achieve the proposed objectives, the methodology in the curricular unit is based on principles of theoretical – practical training and the study and analysis of real cases. The pedagogical methods and techniques to be applied during the sessions will be:
(a) Affirmative method with interconnection between expository and demonstrative techniques;

(b) Method of group interaction using the role play technique, with the teacher being responsible for reinforcing learning and coordinating the various actions and simulation tasks of the operational and professional technique.
The methodology aims to provide the opportunity for learning and developing technique and professional skills to carry out the activity of technician in energy and environment.

a) STUDENTS IN GENERAL:

Mandatory attendance in more than 50% of classes actually taught;
Written assessment through theoretical-practical test (TTP) valued at 60%;
Minimum score in the written assessment of 10 points for approval;
Practical work (TP) valued at 35%;
Tutorial guidance (OT) and performance in classes valued at 5%. Practical work: Preparation of an investment project in an area to be designated by the teacher.
The works may be subject to presentation and defense by all those responsible for their preparation, according to a date and rules to be defined in due course.
The works will be penalized if they are delivered after the defined deadline.
Possible defense of the practical work presented according to the schedule and methodology to be established with the students.
The final value of the evaluation will result from the application of the following formula
Assessment by frequency = 0.60 × TTP + 0.35 × TP + 0.05 × OT

b) OTHER CASES.

Working students or others with special status are exempt from attending classes, as long as they do not attend more than 50% of the classes actually taught.
Written assessment through theoretical-practical test valued at 60%.
Minimum score in the written assessment of 10 points for approval.
Practical work valued at 45%.
Delivery of practical work in digital format in a single phase.
The works will be penalized if they are delivered after the defined deadline.
Possible defense of practical work presented according to a schedule and methodology to be defined with the students.
The final value of the evaluation will result from the application of the following formula
Assessment by frequency = 0.60 × TTP + 0.40 × TP

c) MOBILITY STUDENTS:

Proficiency in Portuguese and/or English;
Attendance of introductory undergraduate courses on the scientific topic covered in this discipline;
Assessment through exam and/or work(s) specially defined based on the student's profile.

FINAL EVALUATION (Normal and Appeal Season)

The student can choose one of the following two modalities:
a) Only take the final exam (100%).
Minimum score of 10 for approval.
b) Combine the exam grade with the practical work carried out during the academic period.
Written assessment through theoretical-practical test valued at 80%.
Minimum score on the exam of 10 points for approval.
Practical work valued at 20%.
It assumes that the practical work(s) have been presented within the scheduled timetable.
The final value of the evaluation will result from the application of the following formula
Assessment per exam = 0.70 × TTP + 0.30 × TP

7. ATTENDANCE

Attendance superior or equal to 75% to access the frequency.

8. CONTACTS AND OFFICE HOURS

Manuel António Sobral Campos Jacinto

eng.jacinto@gmail.com*, Constructions Laboratory, Mondays from 15:00 to 16:00.*

9. OTHERS

Nothing to say.

DATE

11 de março de 2024

SIGNATURES

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

Professor

(signature)

Area/Group Coordinator

(signature)

(signature)

(signature)