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

Course	**Topographic Engineering**					
Subject	**Geo-referenced Data Structures**					
Academic year	2023/2024	*Curricular year*	3rd	*Study period*	1st semester	
Type of subject	Compulsory	*Student workload (H)*	Total: 168	Contact: 67,5	*ECTS*	6
Professor(s)	Doctor António Figueiredo Monteiro					
☒ *Area/Group Coordinator* ☐ *Head of Department* *(select)*	Doctor Maria Elisabete Santos Soares					

PLANNED SUBJECT DESCRIPTION

1. LEARNING OBJECTIVES

Qualify the students about different database types and their application.

Qualify the students for relational database: organization, construction and analyses

2. PROGRAMME

- *Introduction of alphanumeric databases.*
- *The Management System Database (MSDB).*
- *Models of alphanumeric databases.*
- *Collection, processing and structuring of geographic data: alphanumeric data, graphical data; structure and verification of geographic data and topological structure.*
- *Practical Applications.*

3. COHERENCE BETWEEN PROGRAMME AND OBJECTIVES

Through its content, this curricular unit contributes to the overall training of the student as a person and as a future professional. For this reason, the contents train and prepare the students, making them aware of the existence of various models of databases and their structure, developing their competence in the area of technology and computer systems. In the end, the student should be able to organize and create a relational database with available technology.

4. MAIN BIBLIOGRAPHY

- *Pereira, José Luís "Tecnologia de Bases de Dados"*
- *Burrough, Peter A. and McDonnell, Rachael A. "Principles of Geographical Information Systems"*
- *Sousa, Sérgio, "Domine a 110% Access 2007", LIDEL FCA.*
- *Matos, João Luís, "Fundamentos de Informação Geográfica", LIDEL Geomática*
- *Sousa, João, "Sistemas de Informação Geográfica com Autodesk Map 3D", LIDEL FCA*

5. TEACHING METHODOLOGIES (INCLUDING EVALUATION)

Oral, computer and multimedia show exposition. Practical works. Availability of e-learning contents.

Test theoretic–practical; accomplishment of a practical work with a weight of at least 30% in the final evaluation.

6. COHERENCE BETWEEN TEACHING METHODOLOGIES AND OBJECTIVES

To reach the proposed objectives, the methodology of the curricular unit is based on principles of theoretical and practical training as well as practice and laboratory training. The pedagogical methods and techniques during the class sessions are theoretical and practical lectures using audiovisual and computer aids with exercises which are solved via specific software as well as assignments.

7. ATTENDANCE

Mandatory attendance in class performance and presentation of practical work

8. CONTACTS AND OFFICE HOURS

CONTACTS

Professor:

Name: António Figueiredo Monteiro

Email: amonteiro@ipg.pt

Telef: 271 220 111

OFFICE Nº*: 78*

Area Coordinator:

Nome: Eufémia da Glória Rodrigues Patrício

Email: gpatricio@ipg.pt

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OFFICE Nº: 78

OFFICE HOURS*:*

- Thursday: 11:00h to 12:30h

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9. OTHERS

DATE

22 de setembro de 2023

SIGNATURES

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

Professor

(signature)

Area/Group Coordinator

(signature)