Ano letivo / Academic year 2023/24 Curso / Course

Código/ Code	Área Científica/ Scientific Area	ECTS	Obrigatória / Optativa Mandatory / Optional	Semestre/ Semester	Ano Curricular/ Curricular year
		1.5	Optional	2	

Designação da unidade curricular / Curricular Unit

ANDROID AVANÇADO / ADVANCED ANDROID

Distribuição de Horas de Contacto por tipo de Ensino / Distribution of Contact Hours by typology of education

Total	Teórico / Theoretical	Teórico/Prático Theoretical / practical	Prático e Laboratorial / Practical and Laboratory	Trabalho de campo / Field work	Seminário / Seminar	Orientação Tutorial / Tutorial	Estágio / Traineeship
15	0	15	0	0	0	0	0

Docente responsável e respetiva carga letiva na Unidade Curricular (preencher o nome completo) /Responsible teaching staff member and lecturing load in the curricular unit (fill in the full name)	**Correio eletrónico / Email**
Jorge Guerra Teixeira Constantino	jorge.constantino@esg.ipsantarem.pt
Outros docentes e respetivas cargas lectivas na unidade curricular / Other Teaching staff and lecturing load in the curricular unit	**Correio eletrónico / Email**
Mário Alexandre Martins Duarte	mario.duarte@esg.ipsantarem.pt

Objetivos de Aprendizagem (conhecimento, aptidões e competências a desenvolver pelos estudantes)

The approved student is expected to:

1. Understand and apply some advanced features of Android system,

2. Have the skills to develop integrated solutions, using the studied technologies.

3. Be able to fully develop and publish a project to market(s);

Conteúdos programáticos

A. Patterns-based Development

- Models (e.g. data in SQLite, via OOP in Java)

- Views (e.g. XML layouts in Android Activities)

- Controllers

B. Specifics and Publishing

- Platform specific development process

- The app's robustness

- The "user experience"

- Publishing

Demonstração da Coerência dos Conteúdos Programáticos com os Objetivos de Aprendizagem da Unidade Curricular

In the curricular unit Introduction to Android, the bases of the Android system were presented in a guided and demonstrative way. In this curricular unit, some advanced concepts are presented with the aim of stimulating discovery and autonomous work.

The hands-on development is expected to confer skills which empower the student to propose and fully develop his/her own solutions.

Metodologia de Ensino (Avaliação incluída)

Presentations, examples and case studies.

Hands-on development with the selected solutions.

Assessment:

1. Project proposed by the student and agreed with the teacher (P)
2. Written test (T)

    Final grade = $0.7 * P + 0.3 * T$

Demonstração da Coerência das Metodologias de Ensino com os Objetivos de Aprendizagem da Unidade Curricular

The pesentations, examples and the case studies introduce, illustrate and then render the concepts concrete, respectively, helping in their understanding.

The hands-on development using the adopted solutions should translate to "mobile apps" software creation skills.

Bibliografia de consulta /existência obrigatória / Bibliography (Mandatory resources):

–   Murphy, M. (2019). The Busy Coder's Guide to Android Development: https://commonsware.com/Android/.

–   Android Developers - Training. (2022). from https://developer.android.com/training/index.html

–   Bill Phillips, C. S., Brian Hardy. (2017). Android Programming: The Big Nerd Ranch Guide (3rd edition (30 January 2017) ed.): Big Nerd Ranch Guides.

–   Joseph Annuzzi Jr., L. D., Shane Conder. (2015). Introduction to Android Application Development: Addison Wesley.