

Course Unit	Computer System Architecture		Field of study	Network and Computer Systems	
Bachelor in	Informatics and Communications		School	School of Public Management, Communication and Tourism	
Academic Year	2020/2021	Year of study	1	Level	1-1
Type	Semestral	Semester	2	ECTS credits	6.0
			Code	9188-320-1102-00-20	
Workload (hours)	162	Contact hours	T 15	TP -	PL 45
			TC -	S -	E -
			OT 20	O -	

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s) Cosmin Constantinescu

#### Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

1. Identify and describe the various hardware components of a common computer system.
2. Install and configure hardware to a common computer system.
3. Identify the importance of configuration, maintenance and optimization of a basic operating system in a user's perspective.
4. Install, configure and optimize the operation of operating systems (Windows, Linux) on a user's perspective.
5. Demonstrate the ability to work in various operating systems.

#### Prerequisites

Before the course unit the learner is expected to be able to:  
Without prerequisites.

#### Course contents

Computer hardware, assembling a PC, BIOS setup, diagnosis of errors and software.

#### Course contents (extended version)

1. Computer
2. The Microprocessor
3. Bus and Ports
4. Memories
5. Storage Units
6. Computer Assembling and Maintenance
7. BIOS Setup
8. Error Diagnosis and Resolution
9. Monitors
10. Display Adapters
11. Software

#### Recommended reading

1. Magalhães, J. , Gouveia, A. , (2019). Hardware - tecnologias e soluções. FCA. ISBN: 9789727228928.
2. Branco, A. , (2015). Manual de Instalação e Reparação de Computadores. 3ª Edição. FCA. ISBN: 9789727228089.
3. Delgado, J. , Ribeiro, C. (2014). Arquitectura de computadores. (5ª ed. ). Lisboa: FCA. ISBN: 978-972-722-789-1
4. Hennessy, J. L. , Patterson, D. A. , (2011) Computer Architecture: A Quantitative Approach. Morgan Kaufmann. Fifth Edition. ISBN: 978-0123838728
5. Harris, D. , Harris, D. , (2012) Digital Design and Computer Architecture, Second Edition. (2 edition), Morgan Kaufmann. ISBN: 0123944244

#### Teaching and learning methods

For each topic of the program will be an introduction to the theory that using the expository method using a video projector. Will also apply the method interrogative, questioning systematically pupils themselves to develop the capacity of reasoning.

#### Assessment methods

1. Continuous evaluation - (Regular, Student Worker) (Final, Supplementary, Special)
  - Final Written Exam - 50% (Minimum grade: 8. 0 values.)
  - Practical Work - 50% (Minimum grade: 8. 0 values.)
2. Final Exam - (Regular, Student Worker) (Final, Supplementary, Special)
  - Final Written Exam - 100%

#### Language of instruction

Portuguese, with additional English support for foreign students.

#### Electronic validation

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03-11-2020	13-11-2020	13-11-2020	13-11-2020