



## **ACADEMIC PROGRAM**

### **COMPANY INTERNSHIPS**

### **B.F.A. IN COMPUTER SCIENCE**

***MODALITY: ON CAMPUS***

***ACADEMIC YEAR: 2023-2024***

|                            |   |
|----------------------------|---|
| <b>Name of the course:</b> | <b>Company internships</b>                                |
| Degree :                   | Computer Science  |
| Location:                  | Centro Universitario de Tecnología y Arte Digital         |
| Area:                      | Laboral Training  |
| Year:                      | 4º  |
| Teaching period:           | 1   |
| Type:                      | OP  |
| ECTS credits:              | 6   |
| Teaching modality:         | On campus   |
| Language:                  | English   |
| Lecturer / Email           | -   |
| Web page:                  | <a href="http://www.u-tad.com/">http://www.u-tad.com/</a> |

## SUBJECT DESCRIPTION

### Area description

This subject aims to bring students closer to the reality of the working environment they will be entering once they have completed their studies. Through this subject they will acquire the essential knowledge about the main agents of the industry or industries associated with the field of the degree, the techniques and instruments for finding employment, the legal environment of the labor market, the social skills necessary for teamwork, and awareness of conflict management mechanisms within a working group.

### Subject description

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## COMPETENCIES AND LEARNING OUTCOMES

### Competencies

#### BASIC AND GENERAL SKILLS

CG1 - Ability to understand, schedule and solve problems through software development

CG2 - To develop software that are environmental friendly, engaged with society and natural resources and law and ethics compliant

CG5 - Management of human and technological resources for the proper delivery of computer projects

CG6 - Develop collaborative projects showing teamwork skills, versatility, flexibility, creativity and respect for the work of the team members

CG7 - Knowledge of the creative foundations of ideation in software development projects.

CG8 - To know the resources of employability and the legal framework in this professional walk.

CG9 - Ability to learn, modify and develop new software solutions

CG10 - Use of creative techniques to carry out computer projects

CG11 - Ability to search, analyze and manage information for insights capture

CG12 - Ability of decision-making during development of a digital project, based on the analysis of its context and in accordance with its target audience and business model

CG13 - Development of the critical spirit in social and communication spheres to properly behave in the knowledge and information society

CB1 - Que los estudiantes hayan demostrado poseer y comprender conocimientos en un área de estudio que parte de la base de la

educación secundaria general, y se suele encontrar a un nivel que, si bien se apoya en libros de texto avanzados, incluye también

algunos aspectos que implican conocimientos procedentes de la vanguardia de su campo de estudio

CB2 - Que los estudiantes sepan aplicar sus conocimientos a su trabajo o vocación de una forma profesional y posean las

competencias que suelen demostrarse por medio de la elaboración y defensa de argumentos y la resolución de problemas dentro de

su área de estudio

CB3 - Que los estudiantes tengan la capacidad de reunir e interpretar datos relevantes (normalmente dentro de su área de estudio)

para emitir juicios que incluyan una reflexión sobre temas relevantes de índole social, científica o ética

CB4 - Que los estudiantes puedan transmitir información, ideas, problemas y soluciones a un público tanto especializado como no

especializado

CB5 - Que los estudiantes hayan desarrollado aquellas habilidades de aprendizaje necesarias para emprender estudios posteriores

con un alto grado de autonomía

BC1: Students should demonstrate knowledge in an area of study that builds upon the foundation of general secondary education and goes beyond at a level that, while supported by advanced textbooks, also encompasses certain aspects derived from the cutting edge of their field of study.

BC2: Students should be able to apply their knowledge to their work or vocation in a professional manner, and they should possess the competencies typically demonstrated through the development and defence of arguments as well as problem-solving within their field of study.

BC3: Students must possess the ability to gather and interpret relevant data (usually within their field of study) in order to make judgments that involve reflection on socially, scientifically, or ethically significant issues.

BC4: Students should be capable of conveying information, ideas, problems, and solutions to both specialized and non-specialized audiences.

BC5: Students should have developed the learning skills necessary to pursue further studies with a high degree of autonomy.

#### TRANVERSALES SKILLS

CT1 - Knowledge of the definition, scope and implementation of the fundamentals of project management methodologies for technology projects

CT2 - Knowledge of the main sectorial players and the life cycle of a digital content development and commercialization project

CT4 - Ability to update the knowledge acquired in the management of digital tools and technologies according to the current state of affairs of the sector and the technological solution

CT5 - Development of the basic skills for digital entrepreneurship.

#### SPECIFIC SKILLS

CE18 - Ability to design the architecture of an object-oriented computing application using the most appropriate design patterns and integrating them into the entire architecture.

CE19 - Ability to conceive, design through graphic languages and implement a computer application using different development methodologies, from the conception of the product to its final development to the definition of its phases and iterations

CE20 - Ability to test the operation and functionality of a computer application, develop test plans and use test-oriented design and programming techniques

CE21 - Ability to assess the quality of a computer application by applying software quality measurement metrics, procedures, and standards

CE22 - Knowledge of the techniques and implications of maintaining computer applications including those that use reverse engineering principles to understand and modify software of unknown structure

CE26 - Knowledge of human-machine interaction fundamentals and the role that this interaction plays in the development of digital projects.

CE27 - Knowledge of methods and techniques related to the conceptualization, design, analysis and evaluation of usable and accessible interactive products

CE28 - Knowledge of the basics of discrete mathematics, Logic, algorithmic and computational complexity and its application in solving computer engineering problems

### Learning outcomes

Upon completion of the degree, the graduate will be able to:

- Identify needs and situations that require the intervention of the professional
- Develop cooperation skills with other professionals
- To become aware of the ethical component and deontological principles of the exercise of the profession.
- To be aware of the fundamental rights and equality between men and women in the field of work.
- Appropriately use theories, procedures and tools in their professional development

### CONTENTS

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### SUBJECT SYLLABUS

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### TRAINING ACTIVITIES AND TEACHING METHODOLOGIES

#### TRAINING ACTIVITIES

| LEARNING ACTIVITIES   | Total hours | Hours of presence |
|---|-------------|-------------------|
| <i>Tutorials</i>  | 10          | 8                 |
| <i>Independent study and autonomous work of the student</i> | 0           | 0                 |
| <i>Elaboration of work (group or individual)</i>            | 30          | 0                 |
| <i>External internships</i>                                 | 110         | 110               |
| <b>TOTAL</b>  | 150         | 118               |

#### Teaching methodologies

Expository method or master lesson

Case learning

Learning based on problem solving

Cooperative or collaborative learning

inquiry learning

Flipped classroom methodology

Gamification

Just in time Teaching (JITT) or classroom on time

Expository method or master lesson

Case method

Learning based on problem solving

Cooperative or collaborative learning

inquiry learning

Flipped classroom methodology

Gamification

## TEMPORAL DEVELOPMENT

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## EVALUATION SYSTEM

| ASSESSMENT SYSTEM  | MINIMUM SCORE<br>RESPECT TO THE FINAL<br>ASSESSMENT (%) | MAXIMUM SCORE<br>RESPECT TO THE<br>FINAL ASSESSMENT<br>(%) |
|--|---|--|
| <i>Assessment of participation in class, exercises or projects of the course</i> | 0   | 0  |
| <i>Assessment of assignments, projects, reports, memos</i>                       | 0   | 0  |
| <i>Objective test</i>  | 0   | 0  |
| <i>Evaluation of the External Practices</i>                                      | 0   | 100  |

## GRADING CRITERIA

| ASSESSMENT SYSTEM                           | ORDINARY EVALUATION | EXTRAORDINARY EVALUATION |
|---|---------------------|--------------------------|
| <i>Evaluation of the External Practices</i> | 100                 | 100                      |

### General comments on the evaluations/assessments

In order to carry out and evaluate the external placement, the student will have a U-tad academic tutor and a company tutor. The company tutor will draw up and submit to the U-tad academic tutor a final report on the activities carried out, their duration and, where appropriate, their performance.

The student shall prepare and submit a final report to the U-tad academic tutor at the end of the external placement.

The final grade will be awarded by the U-tad academic tutor taking into account:

- The company tutor's final report: 60% weighting.
- The final internship report: 20% weighting.
- The assessment report of the tutorials of the U-tad Professional Development Service: 20% weighting

### LIST OF REFERENCES (BOOKS, PUBLICATIONS, WEBSITES):

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### REQUIRED MATERIALS, SOFTWARE AND TOOLS

#### Type of classroom

-

#### Materials:

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#### Software:

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