



## 1º Ciclo | Licenciatura Engenharia Informática

### Direction

José Joaquim Magalhães Moreira

### Access Conditions

### Number of Semesters

6

### ECTS

180

Vila Nova de Gaia  
Rua Diogo de Macedo, nº192  
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## About

The Bachelor's Degree in Computer Engineering is a 1st cycle course, in line with the Bologna principles, which aims to provide graduates with a solid education in Computer Engineering, in order to respond to the rapid evolution of the scientific area, including and providing the necessary tools for graduates to have, at market level, the appropriate qualifications and skills to perform the different functions of the Computer Engineer profile. In this sense, the syllabus seeks to provide an adequate response to the need for multidisciplinary training of staff capable of leading the continuous transformations that are necessary and urgent in an increasingly demanding, competitive sector that is eager for new technologies, requiring increasingly rigorous and professional approaches.

## Course Plan

### Course Structure

#### 1º Ano / Common Core

[Computer Architecture](#) 3 ECTS | [Fundamentals of Databases](#) 6 ECTS | [Fundamentals of Physics](#) 4 ECTS | [Linear Algebra](#) 5 ECTS | [Mathematics I](#) 6 ECTS | [Programming Fundamentals](#) 6 ECTS | [Algorithms and Data Structures](#) 6 ECTS | [Database Programming](#) 6 ECTS | [Digital Systems](#) 3 ECTS | [Mathematics II](#) 6 ECTS | [Multimedia Technologies](#) 5 ECTS | [Operating Systems](#) 4 ECTS |

#### 2º Ano / Common Core

[Information Systems Architecture](#) 3 ECTS | [Networks and Data Communication I](#) 6 ECTS | [Object Oriented Programming](#) 6 ECTS | [Statistics](#) 6 ECTS | [Systems Analysis and Modeling](#) 3 ECTS | [Web-Client Programming](#) 6 ECTS | [Advanced Programming](#) 6 ECTS | [Interfaces and Usability](#) 3 ECTS | [Mobile Device Programming](#) 6 ECTS | [Networks and Data Communication II](#) 6 ECTS | [Software Engineering](#) 3 ECTS | [Web-Server Programming](#) 6 ECTS |

#### 3º Ano / Common Core

[Advanced Web Technologies](#) 3 ECTS | [Artificial Intelligence](#) 6 ECTS | [Computer Engineering Project \(Computer Engineering Project / Internship\)](#) 5 ECTS | [Traineeship \(Computer Engineering Project / Internship\)](#) 5 ECTS | [Organizational Management](#) 5 ECTS | [Programming Laboratory](#) 6 ECTS | [Project Management](#) 5 ECTS | [Applied Computer Engineering Project \(Applied Computer Engineering Project / Internship\)](#) 20 ECTS | [Traineeship \(Applied Computer Engineering Project / Internship\)](#) 20 ECTS | [Computer Security](#) 3 ECTS | [Distributed Systems](#) 3 ECTS | [E-Commerce and Digital Marketing](#) 4 ECTS |