DIGITAL

EUROPEAN MASTER'S IT EXPERT - SMART APPLICATIONS AND BIG DATA - LEVEL 7 EQF

Level
7 EQF *(European Qualifications Framework)*

Duration
2 years

Credits
120 ECTS

Target group
Students - people seeking employment - employees and professionals in the sector

Admission requirements
Candidates holding a level 6 EQF qualification or a qualification equivalent to the attainment of 180 ECTS

Course Structure
Full-time or work-study

Pedagogical methods
Theoretical courses, tutorials and practical work
Case studies and professional scenarios
Individual and group projects

First Year Assessments
- Continuous assessment
- Practical examinations 1 (1h30)
- Practical examinations 2 (2h)
- Thesis defence (1h)

Modern language
- Reading (1h45)

Second Year Assessments
- Continuous assessment
- Practical examinations (2h)
- Practical examinations (2h)
- Thesis defence (1h)

Modern language
- Listening (45 min)

The FEDE, as a certifier, is in charge of the assessment processes
- Organisation and planning of exam sessions
- Development of topics and model answers
- Ensuring compliance with examination regulations and supervision (anonymity, integrity, confidentiality)
- Assessment and marking of papers
- Reporting results, issuing diplomas, diploma supplements and certificates

www.fede.education/en/fede-quality-charter

The number of projects to develop smart applications, whether Big Data-based or not, is increasing with digitisation in sectors such as telecoms, e-commerce, industry, services, leisure, education, training, agriculture and agri-food.
Companies are looking for professionals with solid technical skills, experts in smart and secure digitalisation. They must be able to lead teams, manage projects as a whole and respond to specific customer needs. This course prepares learners to design complex digital projects with skill and autonomy.

LEARNING OUTCOMES

- Carry out an audit/specification to develop a software solution tailored to the customer's requirements
- Manage a software development project as part of a team
- Deliver the product to the customer and ensure maintenance.
- Manage the software lifecycle
- Understand how an application interacts with databases
- Learn about the various techniques for testing and securing code
- Understand and master the economic challenges of Big Data and smart applications

PROGRAMME

PROFESSIONAL SKILLS (675-780 HOURS)

Master's Year 1
IT Project Management - Fundamentals
Project management tools/methods - IT project management - Corporate IT culture
Development and Database - Fundamentals
Development languages - Relational databases - Big Data and NoSQL
Smart App Development and Big Data - Fundamentals
JEE and Oracle - Advanced PHP and MongoDB - Python and Cassandra - Java/Kotlin Android

Professional assignment (≥12 weeks)
Internship - Apprenticeship - Salaried employment

Master's Year 2
Information Technology Project Management - Advanced
Project management tools/methods - IT project management - Corporate IT culture
Development and Database - Fundamentals
Hadoop and JAVA - Relational databases-Objects and Objects - Data Mining and AI - DevOps architectures
Development of Smart Applications and Big Data - Advanced
Java and Big Data (Hadoop) - Python and Data Mining (AI) - Node.js and Big Data (MongoDB) - Cross Platforms and Hybrids - Open Source Programming Project

Professional assignment (≥12 weeks)
Internship - Apprenticeship - Salaried employment

MODERN LANGUAGE (60-80 HOURS)
Modern language 1 - CEFR level B2
German, English, Spanish, French, Italian, Portuguese
Modern language 2 and 3 (optional)
German, English, Arabic, Chinese, Spanish, French, Italian, Portuguese

CAREER DESTINATIONS

IT Project Manager / Big Data Manager / IT Application Coordinator / Technical Architect / Functional Consultant / Technical Consultant / Smart Applications/Big Data Development Project Manager / Mobile application development project manager / Web services / Smart, Big Data, mobile software development project manager / Scrum Master

FEDE'S ASSET - EUROPEAN DEGREE

EUROPEAN CULTURE AND CITIZENSHIP (40H)

Businesses and the challenges of the ecological transition
- The climate crisis and the destruction of biodiversity: causes and consequences
- The regulatory framework governing the green transition
- The green transition: a response to crises
- Key actors in the green transition and sustainable development
- Citizens as agents of change
- The role of businesses in the green transition
- Cross-cutting skills and interdisciplinarity

CCE (Company Skills Certificate) Assessments
Quiz (1h)

EUROPEAN MASTER'S IN IT EXPERTISE- SMART APPLICATIONS AND BIG DATA