

Bachelor's Degree in Techniques for Software Application Development

Official programme



Universitat
Oberta
de Catalunya

Faculty of
Computer Science,
Multimedia and
Telecommunications





Bachelor's Degree in Techniques for Software Application Development

Daniel Riera i Terrén
Dean of the Faculty of Computer Science,
Multimedia and Telecommunications

Robert Clarisó
Programme Director of the Bachelor's Degree in
Techniques for Software Application Development

Presentation

Today, many processes have become automated, and new devices (smart and connected) open the door to new ways of interacting with our environment. It is through software that we can control these tasks and devices and take advantage of their full potential.

This has brought about a great demand for developers, which have become one of the most sought-after career profiles by companies worldwide.

In this context, the Bachelor's Degree in Techniques for Software Application Development produces expert **developers** in software, applications and services in any field. It also trains them in the **administration** of computers, networks, and systems where these applications will run.

The student learns **software engineering techniques** to build software, as well as **programming languages**, tools and the technologies most commonly used to develop software for different platforms. In addition, the student gains knowledge about **web apps**, **databases**, **human-computer interaction**, **networks**, and **operating systems** they will need to create and manage usable, efficient, and scalable applications.

Follow us!

Twitter: @uoceimt

Facebook/uoceimt

Blog: <https://informatica.blogs.uoc.edu>

Competencies

- Ability to identify the characteristics of the different types of organizations and the role that ICTs play in them.
- Ability to evaluate software solutions and make proposals for development projects, taking into account the resources, the available alternatives and the market conditions.
- Ability to understand and use the scientific bases of software development to analyse each problem at a level of abstraction that is suited to each specific situation and apply the skills and knowledge acquired to address and solve them.
- Ability to identify the structural elements of a computer and the principles of how a computer operates.
- Know the fundamentals of operating systems and computer networks to design and develop solutions that take into the specific features of each platform, available and shared resources, and the system's security.
- Ability to design and build computer applications using development, integration and reuse techniques.

Career opportunities

Graduates in Techniques for Software Application Development can pursue the following specialized careers:

Programmer / Developer

Analyst programmer

Software engineer

Web, mobile or cross-platform app developer

ICT consultant

Systems and Network administrator



Bachelor's Degree in Techniques for Software Application Development

Credits
180 ECTS



Start
September and February



Instructional language
English



Flexibility in deciding which courses to take

You can find information on the web relative to the courses to be taken on a semester-by-semester basis for each specific degree. However, we recommend that you consult your tutor as they can offer advice on when it makes more sense for you to start the course based on your study time available and your commitments.

Study plan

This Bachelor's Degree consists of 180 ECTS credits, which are organized into three types: basic, compulsory and optional.

48 basic ECTS credits.

96 compulsory ECTS credits.

24 optional ECTS credits.

12 credits attributed to the Final Project (FP).

In EHEA Bachelor's degree courses, **one ECTS credit** corresponds to **25 study hours**.

Admission requirements met in Spain

Proof of competency in English equivalent to B2 and either:

University entrance examinations (PAU / EBAU / Students over 25 / Students over 45).

Bachillerato (upper secondary school education) without PAU: Spanish *bachillerato* LOE 2016 and repeat students 2017.

Work experience in the field of the degree for students over 40.

Vocational training (CFGs* / FP2 / MP3).

University qualification or equivalent.

*If you have completed an advanced-level vocational training programme (CFGs), check credit recognition for the Bachelor's Degree in Techniques for Software Application Development

Consult admission requirements for international students

To learn more, visit the UOC's website

Regarding the first enrolment

If this is your first enrolment in this Bachelor's Degree, we recommend choosing one (or a part of one) of these two course packages:

Credits

Package 1

Fundamentals of Programming	6
Software Engineering	6
Web Standards and Languages	6

Package 2

Logic	6
Algebra	6
Web-Based Teamwork	6

These packages offer several advantages:

- Submission deadlines for assessment activities do not overlap on the same day.
- There is some degree of flexibility in the assessment process.

If you are requesting credit recognition or have any questions regarding the enrolment process, your tutor will offer you personal advice.

Courses

Credits

Basic courses	48 ECTS
Algebra	6
Logic	6
Web-Based Teamwork	6
Fundamentals of Programming	6
Programming in Practice	6
Web Programming	6
Software Engineering	6
Computer Structure	6
Compulsory courses	96 ECTS
Entrepreneurial Initiative	6
Object-Oriented Programming	6
Data Structures	6
Web Standards and Languages	6
Advanced Web Programming	6
Software Design Patterns	6
Software Architecture	6
Human-Computer Interaction	6
Introduction to Databases	6
Database Design	6
Operating Systems	6
Networks and Internet Applications	6
Network and System Administration	6
Cloud computing	6
Mobile Application Development	6
Business and IT Management	6
Optional courses	24 ECTS
Communication Skills for ICT Professionals	6
Distributed Systems	6
Security in Computer Networks	6
E-commerce	6
Fundamentals of Computers	6
Embedded Systems	6
Fundamentals of Information Systems	6
Internship	12
Bachelor's degree final project	12 ECTS

Credit recognition of prior studies



The UOC offers the possibility of recognizing courses in the following cases:

- **Prior studies assessment** is the process that must be requested by students who wish to validate the studies they have taken at the UOC or any other university. It also includes the recognition of RECAAU credits for participation in cultural, sport-related, representation or voluntary university activities.
- **Academic recognition** of courses or internships based on the student's **professional experience**.
- **Credit recognition for students who have completed an advanced-level vocational training programme**. Check whether the programme you studied is one that offers this possibility and which courses are recognized for your bachelor's degree.



Enrolment process



You can apply for admission on the UOC's website, which is a **free procedure that entails no commitments**. You will receive a username and password allowing you to enter the UOC's Virtual Campus, where you will be able to:

1. **Talk to a tutor**, who will offer expertise in the subject area to guide your choice of courses.
2. Consult the Virtual Campus' **Procedures** space for information about recognition of prior studies, the breakdown of enrolment costs, applications for grants, etc.
3. **Make an enrolment proposal**. Your tutor will check your proposal and offer guidance to help you complete your online enrolment.

Visit the UOC's website to learn more about discounts and grants.

Other related programmes

- Bachelor's Degree in Computer Engineering.

Official qualifications



The UOC's bachelor's degrees are **official university qualifications** that have been **approved** by the Spanish Universities Council and **authorized** by the Government of Catalonia. The official status of these qualifications is **laid out** in the **Agreement of the Council of Ministers**, published in the Official State Bulletin (BOE), in accordance with the provisions of Royal Decree 1393/2007, of October 29, which establishes the planning of official university education.

The UOC's official university programmes are valid **throughout Spain**. They are **fully recognized academically** and allow holders, where appropriate, to exercise regulated professions, in accordance with the regulations in place in each case.

The certificates are issued with a **European Diploma Supplement (DS)**, which provides information on the courses studied by the student, the results obtained, the professional skills acquired and the qualification's level in terms of the Spanish higher education system. The DS **helps students have their qualifications recognized and aids mobility throughout the European Higher Education Area (EHEA)**.

In other countries, the validity of the official university qualifications awarded by the UOC will be determined in each case by each country's education laws.

More than 25 years' experience in e-learning

In 1995, the UOC was designed to exist fully on the internet: the first university ever to run online.

89.300
graduates

77.500
students

478
faculty members and research staff

5.300
course instructors and tutors

A Barcelona-based university with a global presence and worldwide alliances

142
countries with UOC students

35
international educational networks

152
international alliances

LEARNING TRANS- FORMING

Headquarters

BARCELONA

Av. del Tibidabo 39-43,
08035 Barcelona
(+34) 934 817 272

SEVILLA

Calle Torneo, 32
41002 Sevilla
(+34) 954 99 16 25

MEXICO CITY

Paseo de la Reforma, 265, piso 1
Col. Cuauhtémoc
06500 Ciudad de México
Tel.: (+52) 55 55114206

MADRID

Plaza de las Cortes, 4
28014 Madrid
(+34) 91 524 70 00

PALMA

Carrer Ausiàs MArch, 11
07003 Palma
(+34) 971 65 86 11

BOGOTÁ

Carrera 7 #73-47, oficina 802
110221 Bogotá
Colombia
(+57) 1 7945400

VALÈNCIA

Carrer de la Pau, 3
46003 València
(+34) 96 348 66 48

All UOC centres at
seus.uoc.edu

Times Higher Education World University Rankings

Among the top 150 young universities.
The best online university in Ibero-America.
The second best Spanish university under 50 years old.



uoc.edu

 @UOCuniversity

 UOC.universitat

 UOC.universitat

 UOC

