

DEGREE IN COMPUTER ENGINEERING (2021-22)

Código: C203	Fecha de aprobación: 22/03/2012	Precio: 19,27 1st-registration credits
Créditos: 240	Título: Undergraduate 3-5 years (ECTS)	

RAMA

Engineering and Architecture

PLAN

DEGREE IN COMPUTER ENGINEERING

TIPO DE ENSEÑANZA

Face-to-face

CENTROS DONDE SE IMPARTE

Polytechnic School

ESTUDIO IMPARTIDO CONJUNTAMENTE CON

Solo se imparte en esta universidad

FECHAS DE EXAMEN

[Acceda al listado de fechas de examen para esta titulación.](#)

PLAN DE ESTUDIOS OFERTADO EN EL CURSO 2021-22

Nodo inicial:

Leyenda: No ofertada Sin docencia

FIRST YEAR

CORE SUBJECTS 54 créditos

Curso	Título	Créditos	Subject
1	CORE	6	34001 - PROGRAMMING 1
1	CORE	6	34002 - MATHEMATICS 1
1	CORE	6	34003 - PHYSICS PRINCIPLES OF I.T.
1	CORE	6	34004 - PRINCIPLES OF COMPUTERS
1	CORE	6	34005 - IT SYSTEMS AND TECHNOLOGIES
1	CORE	6	34006 - DISCRETE MATHEMATICS
1	CORE	6	34007 - MATHEMATICS 2
1	CORE	6	34008 - PROGRAMMING 2
1	CORE	6	34009 - PRINCIPLES OF DATABASES

COMPULSORY SUBJECTS 6 créditos

Curso	Título	Créditos	Subject
1	COMPULSORY	6	34010 - COMPUTER STRUCTURE

FIRST YEAR (ARA)

CORE SUBJECTS 54 créditos

Curso	Título	Créditos	Subject
1	CORE	6	34001 - PROGRAMMING 1
1	CORE	6	34002 - MATHEMATICS 1
1	CORE	6	34003 - PHYSICS PRINCIPLES OF I.T.
1	CORE	6	34004 - PRINCIPLES OF COMPUTERS
1	CORE	6	34005 - IT SYSTEMS AND TECHNOLOGIES
1	CORE	6	34006 - DISCRETE MATHEMATICS
1	CORE	6	34007 - MATHEMATICS 2
1	CORE	6	34008 - PROGRAMMING 2
1	CORE	6	34009 - PRINCIPLES OF DATABASES

COMPULSORY SUBJECTS 6 créditos

Curso	Título	Créditos	Subject
1	COMPULSORY	6	34010 - COMPUTER STRUCTURE

SECOND YEAR

CORE SUBJECTS 6 créditos

Curso	Título	Créditos	Subject
2	CORE	6	34011 - STATISTICS

COMPULSORY SUBJECTS 54 créditos

Curso	Título	Créditos	Subject
2	COMPULSORY	6	34012 - PROGRAMMING 3
2	COMPULSORY	6	34013 - OPERATING SYSTEMS
2	COMPULSORY	6	34014 - DATA BASE DESIGN
2	COMPULSORY	6	34015 - COMPUTER NETWORKS
2	COMPULSORY	6	34016 - PROGRAMMING AND DATA STRUCTURE
2	COMPULSORY	6	34017 - PROGRAMMING LANGUAGES AND PARADIGMS
2	COMPULSORY	6	34018 - ALGORITHM ANALYSIS AND DESIGN
2	COMPULSORY	6	34019 - ADVANCED SOFTWARE DEVELOPMENT
2	COMPULSORY	6	34020 - COMPUTER ARCHITECTURE

THIRD YEAR

COMPULSORY SUBJECTS 48 créditos

Curso	Título	Créditos	Subject
3	COMPULSORY	6	34021 - ADMINISTRATION OF OPERATING SYSTEMS AND COMPUTER NETWORKS
3	COMPULSORY	6	34022 - DISTRIBUTED SYSTEMS
3	COMPULSORY	6	34023 - SOFTWARE SYSTEMS ANALYSIS AND SPECIFICATIONS
3	COMPULSORY	6	34024 - INTELLIGENT SYSTEMS

3	COMPULSORY	6	34025 - COMPUTER ENGINEERING
3	COMPULSORY	6	34026 - SOFTWARE SYSTEM DESIGN
3	COMPULSORY	6	34027 - SOFTWARE SYSTEMS PLANNING AND TESTING
3	COMPULSORY	6	34028 - IT PROJECT MANAGEMENT

OPTIONAL SUBJECTS

12 créditos

Curso	Título	Créditos	Subject
3	OPTIONAL	6	34541 - ENGLISH I
4	OPTIONAL	6	34029 - THEORY OF COMPUTING
4	OPTIONAL	6	34030 - COMPUTER VISION AND ROBOTICS
4	OPTIONAL	6	34031 - AUTOMATED REASONING
4	OPTIONAL	6	34032 - CHALLENGES OF PROGRAMMING
4	OPTIONAL	6	34033 - INTERACTIVE GRAPHIC SYSTEMS
4	OPTIONAL	6	34034 - LANGUAGE PROCESSING
4	OPTIONAL	6	34036 - ROBOTICS TECHNOLOGY AND ARCHITECTURE
4	OPTIONAL	6	34037 - AGILE SOFTWARE DEVELOPMENT METHODS
4	OPTIONAL	6	34038 - SECURITY IN SOFTWARE DESIGN
4	OPTIONAL	6	34039 - INTERNET-BASED DISTRIBUTED APPLICATIONS
4	OPTIONAL	6	34041 - SOFTWARE QUALITY MANAGEMENT
4	OPTIONAL	6	34042 - COLLABORATIVE APPLICATION DEVELOPMENT
4	OPTIONAL	6	34043 - WEB ENGINEERING
4	OPTIONAL	6	34044 - METHODOLOGIES AND TECHNOLOGIES OF SYSTEM INTEGRATION
4	OPTIONAL	6	34045 - REAL TIME SYSTEMS
4	OPTIONAL	6	34046 - CONCURRENT PROGRAMMING
4	OPTIONAL	6	34048 - AUTOMATION AND INTELLIGENT ENVIRONMENTS
4	OPTIONAL	6	34049 - EMBEDDED SYSTEMS
4	OPTIONAL	6	34050 - INDUSTRIAL SYSTEMS
4	OPTIONAL	6	34051 - SOFTWARE DEVELOPMENT IN PARALLEL ARCHITECTURES
4	OPTIONAL	6	34052 - AUTOMATION AND ROBOTICS
4	OPTIONAL	6	34053 - DATA PROCESSING FOR INFORMATION SYSTEMS
4	OPTIONAL	6	34054 - TECHNOLOGICAL SCENARIOS IN ORGANIZATIONS
4	OPTIONAL	6	34055 - INFORMATION MANAGEMENT
4	OPTIONAL	6	34056 - REQUIREMENTS ENGINEERING
4	OPTIONAL	6	34057 - BUSINESS INTELLIGENCE AND PROCESS MANAGEMENT
4	OPTIONAL	6	34058 - ENTERPRISE APPLICATION INTEGRATION
4	OPTIONAL	6	34060 - BUSINESS ADMINISTRATION
4	OPTIONAL	6	34061 - SECURITY STRATEGIES
4	OPTIONAL	6	34062 - INFORMATION TECHNOLOGY MANAGEMENT AND GOVERNANCE
4	OPTIONAL	6	34063 - WEB-BASED APPLICATION DEVELOPMENT
4	OPTIONAL	6	34064 - MANAGEMENT SYSTEMS OF CONTENTS AND USERS ON THE WEB
4	OPTIONAL	6	34066 - INTERNET SERVICES IMPLEMENTATION AND ADMINISTRATION
4	OPTIONAL	6	34067 - ADMINISTRATION AND MANAGEMENT OF DATA BASES
4	OPTIONAL	6	34068 - NETWORK INTERCONNECTION
4	OPTIONAL	6	34069 - INTERNSHIPS 1

SPECIALTY OPTIONAL SUBJECTS

6 créditos

Curso	Título	Créditos	Subject
3	OPTIONAL	6	34035 - INFORMATION EXPLOITATION
3	OPTIONAL	6	34040 - ADVANCED SOFTWARE SPECIFICATION TECHNIQUES
3	OPTIONAL	6	34047 - COMPUTER AND NETWORK MAINTENANCE ENGINEERING
3	OPTIONAL	6	34059 - E-BUSINESS ADMINISTRATION
3	OPTIONAL	6	34065 - WEB USER AND CONTENT MANAGEMENT SYSTEMS

FOURTH YEAR

COMPULSORY SUBJECTS

12 créditos

Curso	Título	Créditos	Subject
4	END OF DEGREE WORK	12	34071 - FINAL YEAR PROJECT

OPTIONAL SUBJECTS

48 créditos

Curso	Título	Créditos	Subject
3	OPTIONAL	6	34035 - INFORMATION EXPLOITATION
3	OPTIONAL	6	34040 - ADVANCED SOFTWARE SPECIFICATION TECHNIQUES
3	OPTIONAL	6	34047 - COMPUTER AND NETWORK MAINTENANCE ENGINEERING
3	OPTIONAL	6	34059 - E-BUSINESS ADMINISTRATION
3	OPTIONAL	6	34065 - WEB USER AND CONTENT MANAGEMENT SYSTEMS
3	OPTIONAL	6	34541 - ENGLISH I
4	OPTIONAL	6	34069 - INTERNSHIPS 1
4	OPTIONAL	6	34070 - INTERNSHIPS 2

4 OPTIONAL 6 [34542 - ENGLISH II](#)

ROUTE 1. SOFTWARE ENGINEERING OPTIONAL SUBJECTS

Curso	Título	Créditos	Subject
4	OPTIONAL	6	34037 - AGILE SOFTWARE DEVELOPMENT METHODS
4	OPTIONAL	6	34038 - SECURITY IN SOFTWARE DESIGN
4	OPTIONAL	6	34039 - INTERNET-BASED DISTRIBUTED APPLICATIONS
4	OPTIONAL	6	34041 - SOFTWARE QUALITY MANAGEMENT
4	OPTIONAL	6	34042 - COLLABORATIVE APPLICATION DEVELOPMENT
4	OPTIONAL	6	34043 - WEB ENGINEERING
4	OPTIONAL	6	34044 - METHODOLOGIES AND TECHNOLOGIES OF SYSTEM INTEGRATION

ROUTE 2. COMPUTER ENGINEERING OPTIONAL SUBJECTS

Curso	Título	Créditos	Subject
4	OPTIONAL	6	34045 - REAL TIME SYSTEMS
4	OPTIONAL	6	34046 - CONCURRENT PROGRAMMING
4	OPTIONAL	6	34048 - AUTOMATION AND INTELLIGENT ENVIRONMENTS
4	OPTIONAL	6	34049 - EMBEDDED SYSTEMS
4	OPTIONAL	6	34050 - INDUSTRIAL SYSTEMS
4	OPTIONAL	6	34051 - SOFTWARE DEVELOPMENT IN PARALLEL ARCHITECTURES
4	OPTIONAL	6	34052 - AUTOMATION AND ROBOTICS

ROUTE 3. INFORMATICS OPTIONAL SUBJECTS

Curso	Título	Créditos	Subject
4	OPTIONAL	6	34029 - THEORY OF COMPUTING
4	OPTIONAL	6	34030 - COMPUTER VISION AND ROBOTICS
4	OPTIONAL	6	34031 - AUTOMATED REASONING
4	OPTIONAL	6	34032 - CHALLENGES OF PROGRAMMING
4	OPTIONAL	6	34033 - INTERACTIVE GRAPHIC SYSTEMS
4	OPTIONAL	6	34034 - LANGUAGE PROCESSING
4	OPTIONAL	6	34036 - ROBOTICS TECHNOLOGY AND ARCHITECTURE

ROUTE 4. INFORMATION SYSTEMS OPTIONAL SUBJECTS

Curso	Título	Créditos	Subject
4	OPTIONAL	6	34053 - DATA PROCESSING FOR INFORMATION SYSTEMS
4	OPTIONAL	6	34054 - TECHNOLOGICAL SCENARIOS IN ORGANIZATIONS
4	OPTIONAL	6	34055 - INFORMATION MANAGEMENT
4	OPTIONAL	6	34056 - REQUIREMENTS ENGINEERING
4	OPTIONAL	6	34057 - BUSINESS INTELLIGENCE AND PROCESS MANAGEMENT
4	OPTIONAL	6	34058 - ENTERPRISE APPLICATION INTEGRATION
4	OPTIONAL	6	34060 - BUSINESS ADMINISTRATION

ROUTE 5. INFORMATION TECHNOLOGIES OPTIONAL SUBJECTS

Curso	Título	Créditos	Subject
4	OPTIONAL	6	34061 - SECURITY STRATEGIES
4	OPTIONAL	6	34062 - INFORMATION TECHNOLOGY MANAGEMENT AND GOVERNANCE
4	OPTIONAL	6	34063 - WEB-BASED APPLICATION DEVELOPMENT
4	OPTIONAL	6	34064 - MANAGEMENT SYSTEMS OF CONTENTS AND USERS ON THE WEB
4	OPTIONAL	6	34066 - INTERNET SERVICES IMPLEMENTATION AND ADMINISTRATION
4	OPTIONAL	6	34067 - ADMINISTRATION AND MANAGEMENT OF DATA BASES
4	OPTIONAL	6	34068 - NETWORK INTERCONNECTION

LANGUAGE

ROUTE 1. SOFTWARE ENGINEERING

OPTIONAL SUBJECTS

48 créditos

Curso	Título	Créditos	Subject
3	OPTIONAL	6	34040 - ADVANCED SOFTWARE SPECIFICATION TECHNIQUES
4	OPTIONAL	6	34037 - AGILE SOFTWARE DEVELOPMENT METHODS
4	OPTIONAL	6	34038 - SECURITY IN SOFTWARE DESIGN
4	OPTIONAL	6	34039 - INTERNET-BASED DISTRIBUTED APPLICATIONS
4	OPTIONAL	6	34041 - SOFTWARE QUALITY MANAGEMENT
4	OPTIONAL	6	34042 - COLLABORATIVE APPLICATION DEVELOPMENT
4	OPTIONAL	6	34043 - WEB ENGINEERING
4	OPTIONAL	6	34044 - METHODOLOGIES AND TECHNOLOGIES OF SYSTEM INTEGRATION

Superado este bloque se obtiene

DEGREE IN COMPUTER ENGINEERING. ROUTE 1: SOFTWARE ENGINEERING

ROUTE 2. COMPUTER ENGINEERING

OPTIONAL SUBJECTS

48 créditos

Curso	Título	Créditos	Subject
3	OPTIONAL	6	34047 - COMPUTER AND NETWORK MAINTENANCE ENGINEERING
4	OPTIONAL	6	34045 - REAL TIME SYSTEMS
4	OPTIONAL	6	34046 - CONCURRENT PROGRAMMING
4	OPTIONAL	6	34048 - AUTOMATION AND INTELLIGENT ENVIRONMENTS
4	OPTIONAL	6	34049 - EMBEDDED SYSTEMS
4	OPTIONAL	6	34050 - INDUSTRIAL SYSTEMS
4	OPTIONAL	6	34051 - SOFTWARE DEVELOPMENT IN PARALLEL ARCHITECTURES
4	OPTIONAL	6	34052 - AUTOMATION AND ROBOTICS

Superado este bloque se obtiene

DEGREE IN COMPUTER ENGINEERING. ROUTE 2: COMPUTER ENGINEERING

ROUTE 3. INFORMATICS

OPTIONAL SUBJECTS

48 créditos

Curso	Título	Créditos	Subject
3	OPTIONAL	6	34035 - INFORMATION EXPLOITATION
4	OPTIONAL	6	34029 - THEORY OF COMPUTING
4	OPTIONAL	6	34030 - COMPUTER VISION AND ROBOTICS
4	OPTIONAL	6	34031 - AUTOMATED REASONING
4	OPTIONAL	6	34032 - CHALLENGES OF PROGRAMMING
4	OPTIONAL	6	34033 - INTERACTIVE GRAPHIC SYSTEMS
4	OPTIONAL	6	34034 - LANGUAGE PROCESSING
4	OPTIONAL	6	34036 - ROBOTICS TECHNOLOGY AND ARCHITECTURE

Superado este bloque se obtiene

DEGREE IN COMPUTER ENGINEERING. ROUTE 3: INFORMATICS

ROUTE 4. INFORMATION SYSTEMS

OPTIONAL SUBJECTS

48 créditos

Curso	Título	Créditos	Subject
3	OPTIONAL	6	34059 - E-BUSINESS ADMINISTRATION
4	OPTIONAL	6	34053 - DATA PROCESSING FOR INFORMATION SYSTEMS
4	OPTIONAL	6	34054 - TECHNOLOGICAL SCENARIOS IN ORGANIZATIONS
4	OPTIONAL	6	34055 - INFORMATION MANAGEMENT
4	OPTIONAL	6	34056 - REQUIREMENTS ENGINEERING
4	OPTIONAL	6	34057 - BUSINESS INTELLIGENCE AND PROCESS MANAGEMENT
4	OPTIONAL	6	34058 - ENTERPRISE APPLICATION INTEGRATION
4	OPTIONAL	6	34060 - BUSINESS ADMINISTRATION

Superado este bloque se obtiene

DEGREE IN COMPUTER ENGINEERING. ROUTE 4: INFORMATION SYSTEMS

ROUTE 5. INFORMATION TECHNOLOGIES

OPTIONAL SUBJECTS

48 créditos

Curso	Título	Créditos	Subject
3	OPTIONAL	6	34065 - WEB USER AND CONTENT MANAGEMENT SYSTEMS
4	OPTIONAL	6	34061 - SECURITY STRATEGIES
4	OPTIONAL	6	34062 - INFORMATION TECHNOLOGY MANAGEMENT AND GOVERNANCE
4	OPTIONAL	6	34063 - WEB-BASED APPLICATION DEVELOPMENT
4	OPTIONAL	6	34064 - MANAGEMENT SYSTEMS OF CONTENTS AND USERS ON THE WEB
4	OPTIONAL	6	34066 - INTERNET SERVICES IMPLEMENTATION AND ADMINISTRATION
4	OPTIONAL	6	34067 - ADMINISTRATION AND MANAGEMENT OF DATA BASES
4	OPTIONAL	6	34068 - NETWORK INTERCONNECTION

Superado este bloque se obtiene

DEGREE IN COMPUTER ENGINEERING. ROUTE 5: INFORMATION TECHNOLOGIES

GENERAL AIMS

The general aim of the new Degree in Computer Engineering is to produce professionals who have the sound and extensive training background necessary to manage and perform tasks in all stages of the life cycles of systems, applications and products, solving problems in all areas of Information and Communications Technology through the application of their scientific knowledge and the methods and techniques of computer engineering.

More specifically, and in accordance with Annexe II of the Spanish State Gazette (BOE) of 4 August 2009, students are required to acquire the following skills:

1. The ability to design, draft, organise, schedule, develop and sign off on projects in the field of computer engineering, aimed at designing, developing and operating computer systems, services and applications, in accordance with the acquisition of skills established in the following section.
2. The ability to oversee IT projects, applying the knowledge and the skills acquired as established in the Course Programme.
3. The ability to design, develop, evaluate and ensure the accessibility, ergonomics, usability and security of IT systems, services and applications, together with the information processed thereby.
4. The ability to define, evaluate and select hardware and software platforms for the development and operation of IT systems, services and applications, in accordance with the acquisition of skills established in the Course Programme.
5. The ability to design, develop and maintain IT systems, services and applications, using software engineering methods to ensure quality, in accordance with the acquisition of skills established in the Course Programme.
6. The ability to design and develop centralised and distributed IT systems and architectures, integrating hardware, software and networks, in accordance with the acquisition of skills established in the Course Programme.
7. The knowledge, understanding and capacity to work within legislation applicable to Technical Computer Engineering, and the ability to handle specifications, regulations and obligatory standards.
8. An understanding of basic materials and technologies, equipping the student to learn new methods and technologies, and conferring the versatility to adapt to new situations.
9. The ability to solve problems and take decisions with initiative, autonomy and creativity. The ability to communicate and transmit the knowledge, skills and expertise associated with Technical Computer Engineering.
10. The skills necessary to produce measurements, calculations, assessments, appraisals, evaluations, studies, reports, schedules and similar tasks within the field of IT, in accordance with the acquisition of skills established in the Course Programme.
11. The capacity to analyse and assess the social and environmental impact of technical solutions, within an understanding of the ethical and professional duties involved in Technical Computer Engineering.
12. To understand and apply the basic principles of economics, human resources management and project planning, together with the legislation, regulations and standards applicable to IT projects, in accordance with the skills acquisition established in the Course Programme.

- [Credit structure of the degree course](#)
- [Distribution of credits per subject type](#)
- [General description of the course programme](#)
- [Optional subjects and routes](#)

CREDIT STRUCTURE OF THE DEGREE COURSE

Subjects in the Degree in Computer Engineering, worth 6, European ECTS credits each, are organized into semesters. Students must take 5 subjects each semester in order to complete 30 credits per semester and thus, 60 credits per academic year and a total of 240 credits over the four academic years.

In order to make the course compatible with other activities, students are allowed to take a part-time course consisting of 30 credits per academic year.

DISTRIBUTION OF CREDITS PER SUBJECT TYPE

SUBJECT TYPE	ECTS
Core (FB)	60
Compulsory (OB)	108
Optional (OPT)	60
Final Project	12
Total Credits	240

GENERAL DESCRIPTION OF THE COURSE PROGRAMME

The course has been structured around three main areas:

Firstly, and in accordance with the terms of the previously mentioned Decree, the first half of the course programme contains the **core subjects**, worth a total of 60 ECTS credits, of which 54 pertain to Engineering and Architecture, while the other 6 pertain to Social and Legal Sciences (Statistics).

The second part of the programme contains the **Compulsory subjects**, aimed at guaranteeing that students acquire the required skills associated with the Degree, worth 108 ECTS credits, in addition to the obligatory Final Project, worth 12 ECTS. The Final Project is carried out in the final semester and is aimed at assessing the level of skills acquired. Prior to evaluation for the final project, the student must provide evidence of ability in a foreign language. Among other possible qualifications, at the University of Alicante the minimum necessary requirement is to have attained level B1 of the European Framework of Reference for Languages, and this requirement may be raised in the future.

The final part of the programme contains the 60 **optional** ECTS, of which 48 correspond to one of the specialisations established in the Resolution published in the Spanish State Gazette (BOE) on 4 August 2009, while the other 12 ECTS, broken down into 6 plus 6 credits, allow students to combine and choose from work experience, optional subjects from other routes, and English, offered in order to enable students to meet one of the targets established under Art. 16.3 of the University of Alicante regulations; or for credit transfer and validation, in accordance with the system proposed by the University of Alicante, in accordance with the terms of Art. 13 of Royal Decree 1393/2007. Students can thus choose their own curricular direction.

OPTIONAL SUBJECTS AND ROUTES

SUBJECT	ECTS	SEMESTER
SOFTWARE ENGINEERING		
ADVANCED SOFTWARE SPECIFICATION TECHNIQUES	6	6/8
VERSATILE SOFTWARE DEVELOPMENT METHODS	6	5/7
DISTRIBUTED APPLICATIONS ON THE INTERNET	6	5/7
WEB ENGINEERING	6	5/7

COLLABORATIVE DESIGN OF APPLICATIONS	6	5/7
SOFTWARE DESIGN SECURITY	6	6/8
SOFTWARE QUALITY MANAGEMENT	6	6/8
METHODS AND TECHNOLOGIES FOR SYSTEMS INTEGRATION	6	6/8
COMPUTER ENGINEERING		
COMPUTER AND NETWORK MAINTENANCE ENGINEERING	6	6/8
REAL TIME SYSTEMS	6	5/7
CONCURRENT PROGRAMMING	6	5/7
DOMOTICS AND INTELLIGENT ENVIRONMENTS	6	5/7
INDUSTRIAL SYSTEMS	6	5/7
EMBEDDED SYSTEMS	6	6/8
SOFTWARE DEVELOPMENT IN PARALLEL ARCHITECTURES	6	6/8
AUTOMATION AND ROBOTICS	6	6/8
INFORMATICS		
ANALYTICAL PROCESSING	6	6/8
THEORY OF INFORMATICS	6	5/7
AUTOMATED REASONING	6	5/7
INTERACTIVE GRAPHIC SYSTEMS	6	5/7
PROGRAMMING CHALLENGES	6	5/7
ARTIFICIAL VISION AND ROBOTICS	6	6/8
LANGUAGE PROCESSING	6	6/8
ROBOTIC TECHNOLOGY AND ARCHITECTURE	6	6/8
INFORMATION SYSTEMS		
ELECTRONIC BUSINESS MANAGEMENT	6	6/8
DATA PROCESSING FOR INFORMATION SYSTEMS	6	5/7
INTEGRATING BUSINESS APPLICATIONS AND PROCESSES	6	5/7
REQUIREMENTS ENGINEERING	6	5/7
BUSINESS MANAGEMENT	6	5/7
TECHNOLOGICAL SCENARIOS IN ORGANISATIONS	6	6/8
BUSINESS INTELLIGENCE AND PROCESS MANAGEMENT	6	6/8
DATA MANAGEMENT	6	6/8
INFORMATION TECHNOLOGIES		
MANAGEMENT AND IMPLEMENTATION OF COMPUTER NETWORKS	6	6/8
DEVELOPING INTERNET APPLICATIONS	6	5/7
MANAGEMENT AND IMPLEMENTATION OF INTERNET SERVICES	6	5/7
DATABASE ADMINISTRATION AND MANAGEMENT	6	5/7
NETWORK INTERCONNECTIONS	6	5/7
SECURITY STRATEGIES	6	6/8
INFORMATION TECHNOLOGY MANAGEMENT AND CONTROL	6	6/8
INTERNET CONTENT AND USER MANAGEMENT SYSTEMS	6	6/8
WORK EXPERIENCE		
WORK EXPERIENCE I	6	6
WORK EXPERIENCE II	6	7
ENGLISH		
ENGLISH I	6	6
ENGLISH II	6	7

LANGUAGE REQUIREMENT (IN A FOREIGN LANGUAGE)

Students who study an **undergraduate degree** at the University of Alicante must **confirm** a minimum **level of B1 in a foreign language** (a B2 is recommended) in order to **obtain the diploma**.

The required language level is in accordance with the Common European Framework of Reference for Languages.

The language accreditation requirement can be obtained previously or at any time during university studies. However, the language requirement will be necessary in order to be able to **assess the final year project**.

The **different forms** of obtaining such language requirement can be consulted in the additional information in this section.

[+info](#)

LANGUAGE TEACHING COMPETENCE CERTIFICATE

Students who want to have a career in non-university **teaching** when they finish their studies are **recommended** to obtain the **teaching competence certificate** (Valencian and/or foreign languages).

This certificate can be obtained by taking specific itineraries in your university studies or by taking the **UA teaching competence course in Valencian, German, French and English**.

[+info](#)

FINAL YEAR PROJECT (TFG)

All the official undergraduate degrees must be completed by preparing and defending a final year project, which must be done in the final phase of the studies and be aimed at the assessment of competences associated to the degree.

The final year project must be an original, independent and personal work. The elaboration of it may be individual or coordinated. Each student will prepare this project under the supervision of a tutor, allowing students to show the received training content in an integrated way, as well as the acquired competences associated to the undergraduate degree.

In order to **register in the final year project**, students must comply with the requirements established in the "Regulations for continuation studies for students registered in undergraduate degrees at the University of Alicante". Among the requirements established to be able to register in the final year project, a minimum of 168 credits must be passed in undergraduate degrees with a total of 240 credits, and a minimum of 228 credits in undergraduate degrees with a total of 300 credits or more.

In order for **the final year project to be assessed**, a B1 level of a foreign language (B2 is recommended) must be confirmed.

[+info](#)

- [Access routes](#)
- [Procedure for applying for admission](#)
- [Recommended applicant profile](#)
- [Number of places and pass marks](#)
- [A.R.A. Group \(High academic achievement\)](#)

ACCESS ROUTES

Admission to this degree course is open to any applicant who meets one of the following entrance requirements:

1. **SPANISH BACCALAUREATE (LOMCE) UNIVERSITY ENTRANCE EXAM (PAU):** Although students can access university by means of any Baccalaureate specialization, the recommended one is **Sciences**.

ADMISSION SCORES FOR THIS DEGREE CAN BE IMPROVED BY TAKING THE SPECIFIC MODULES OF THE UNIVERSITY ENTRANCE EXAM (PAU) AS INDICATED IN THE TABLE BELOW WITH THEIR RESPECTIVE WEIGHTINGS.

TABLE 1

Computer Engineering

2. **PREVIOUS BACCALAUREATES WITH OR WITHOUT A PASS IN THE UNIVERSITY ENTRANCE EXAM (PAU):** Students who have completed their Baccalaureate under previous education systems and have passed the PAU will be able to use the mark obtained in their application.

HOWEVER, STUDENTS CAN TAKE SPECIFIC EXAM MODULES DURING THE VOLUNTARY PAU EXAM PERIOD IN ORDER TO IMPROVE THEIR ADMISSION SCORE AS SHOWN IN TABLE 1. THEY CAN ALSO SIT FOR THE OBLIGATORY PAU EXAMS, IN WHICH CASE THEY WILL HAVE TO TAKE ALL THE EXAMS SCHEDULED DURING THIS PERIOD.

3. **VOCATIONAL EDUCATION:** Vocational educational qualifications such as senior technician, senior technician of plastic arts and design, or senior technician in sports is the preferred professional area although access to this degree may be through any professional field.

ADMISSION SCORES CAN BE IMPROVED BY TAKING THE PAU EXAM IN UP TO 4 OF THE MODULES IN TABLE 1.

4. **STUDENTS FROM EDUCATION SYSTEMS IN COUNTRIES OF THE EUROPEAN UNION OR OTHER STATES WITH WHICH SPAIN HAS AN INTERNATIONAL AGREEMENT:** Accreditation is required and issued by *Universidad Nacional de Educación a Distancia (UNED)*.

STUDENTS CAN SIT FOR EXAMS IN SUBJECTS INCLUDED IN THE *PRUEBAS DE COMPETENCIAS ESPECÍFICAS (PCE)*, ORGANISED BY THE UNED, IN ORDER TO IMPROVE THEIR ADMISSION SCORE UP TO 14 POINTS AS INDICATED IN THE WEIGHTINGS IN TABLE 1.

5. **STUDENTS FROM FOREIGN EDUCATION SYSTEMS:** Prior to applying for the validation of their foreign Baccalaureate, students may sit for up to 4 exams in subjects offered by the *Pruebas de Competencias Específicas (PCE)* organised by **UNED** (at least one subject from the core subjects).

THE WEIGHTINGS INDICATED IN TABLE 1 WILL BE APPLIED TO CORE AND/OR OPTIONAL SUBJECTS.

6. **OTHER:** University degrees and other similar qualifications. University entrance exam for students over 25 (preferential option: Engineering and architecture). Access on the basis of professional experience (applicants over 40 years of age). Access to applicants aged 45 years or more by means of an exam.

Weightings of the subjects of the specific phase of the Proof of Access to the University (PAU) in the previous years

High School Diploma Subjects	Weighting parameters	Music Analysis II	Biology	Earth and Environmental Sciences	Drawing II	Technical Drawing II	Design	Business Economics	Electronics	Physics	Geography	Greek II	History of Music and Dance	Art History	Latin II	Musical Language and Practice	World Literature	Mathematics Applied to the Social Sciences II	Mathematics II	Chemistry	Expressive techniques in the Arts and Crafts	Industrial Technology II
Academic Years	0.1																					

2010-11 2011-12	0.2		x	x		x	x	x	x	x									x	x			x	
Academic Years 2012-13 2013-14 2014-15 2015-16 2016-17	0.1		x	x			x	x												x				
	0.2					x			x	x										x				x

PROCEDURE FOR APPLYING FOR ADMISSION: PRE-ENROLMENT AND REGISTRATION

- Anticipated number of places offered during the first pre-enrolment session: 240
- In order to apply for a place, the procedure and pre-enrolment periods established each year must be observed. [Information concerning the application procedure \(Pre-enrolment\)](#).
- Applicants admitted to a course must formally register within the timescale established annually in the enrolment calendar. [Registration Information](#).

RECOMMENDED APPLICANT PROFILE

The recommended educational background would be a high school diploma specialising in Science and Technology, with a solid grounding in Mathematics and Physics.

Students should also possess the following aptitudes and skills:

- Numerical skills: ability, speed and accuracy when dealing with figures and problem-solving.
- Logical reasoning: capacity to understand the relationship between events and find the causes, predict consequences and thus resolve problems coherently.
- Abstract reasoning: ability to separate or extract aspects of a situation or problem.
- Observant: capacity to perceive the details of objects, phenomena or events, detecting their distinguishing qualities and appreciating their differences with respect to others.
- Capacity for attention: concentration, ability to voluntarily focus the senses and attention on an object or activity, disregarding other events happening at the same time.

Although new students will obviously have formed their own personalities, it would be an advantage if they were open, critical thinkers, responsible and dynamic, and interested in new advances. To summarise, new students should ideally possess the capacity for work (perseverance, method and rigour), the capacity for reasoning and critical analysis, the ability to work individually or as part of a team, the capacity to obtain, interpret and apply knowledge, problem-solving skills, the capacity for synthesis and abstraction and good communication skills.

NUMBER OF PLACES AND PASS MARKS

COURSES	NUMBER OF PLACES	PASS MARKS						
		GENERAL	OVER 25	OVER 40	OVER 45	GRADUATES	SPORTSPEOPLE	DISABLED
2010-11	240	5,610	6,265	5,110	7,850	5,860	---	---
2011-12	240	5,000	7,368	5,000	5,000	5,000	---	---
2012-13	240	5,540	6,758	---	---	5,000	---	5,000
2013-14	240	5,000	5,000	5,000	---	5,000	---	---
2014-15	240	5,000	5,000	---	---	5,000	---	---
2015-16	240	6,118	5,550	---	---	5,900	---	---
2016-17	240	6,884	5,000	---	---	5,000	---	5,000
2017-18	190	7,118	5,000	---	---	5,000	---	---

- "Pass marks" indicated correspond to the results of the first adjudication of June.
- The definitive marks can be inferior to the here collected.

A.R.A. GROUPS (HIGH ACADEMIC ACHIEVEMENT)

The groups of high performance academicians (ARA), to reinforce the potential of the most distinguished students since the beginning of their

university studies offering part of teaching in English, as well as a series of aid and support for their training.

Students who want to receive teaching on a group ARA must request it at the time of enrolment take place. Shall be assessed the academic record and accredited knowledge of English.

[General information about ARA groups](#)

[Information pamphlet](#)

PROFESSIONAL PROFILES OF DEGREE HOLDERS

This degree qualifies graduates to work as Computer Engineering Technicians, in accordance with Act 12/1989, applying their professional skills to the field of Information Technology.

Graduates may also enrol on professional Master's Degree courses, research courses and other post-graduate courses, in accordance with current legislation.

Demand currently exists for competent Computer Engineering Technicians possessing extensive knowledge in all fields of ITC, capable of heading projects, of identifying problems, assessing risks, proposing effective solutions, and demonstrating the capacity to learn and adapt to possible changes, in order to form part of a rapidly changing environment.

The Degree in Computer Engineering course aims to teach technical and scientific knowledge and practical skills in different areas of IT, enabling graduates both to draw on the current and future possibilities of the discipline and to enter the labour market as engineers in IT research and development.

Degree holders are experts in software technology, computer architecture and technology, computer network technology and electronic equipment. This knowledge qualifies them to work in all types of companies and their departments, although principally in their IT departments.

Accordingly, graduates must be able to enter seamlessly into companies in the ITC sector, or into the IT departments of companies in any sector implementing new technologies, in order to design, develop, maintain and market equipment and systems incorporating telecommunications and informatics subsystems.

The most customary professional fields include: computer centres, hardware and software companies, finance, telecommunications, electricity, high technology, security, IT consultancy, etc.

The specific tasks of Computer Engineering Technicians include:

analysis; supervision of IT and development departments; management and organisation of IT projects and data programming centres; infrastructure maintenance; architecture, analysis and design of IT systems; systems, database and communications systems technician; technical consultancy; artificial intelligence and new technologies; design, selection and assessment of computation and logical infrastructures; optimisation of methods and means of communication between computers and users; design of projects and applications for subsequent analysis and execution; research; training; teaching; commercial technicians and management positions in all company departments, in addition to post-graduate studies in economics and/or IT.

IMPLEMENTATION

The new Polytechnic University College Degree in Computer Engineering will be implemented year by year.

YEAR	ACADEMIC YEAR			
	2010/2011	2011/2012	2012/2013	2013/2014
First	Degree	Degree	Degree	Degree
Second		Degree	Degree	Degree
Third			Degree	Degree
Fourth				Degree

TIMESCALE				
Academic Year	Implementation of the new Degree in COMPUTER ENGINEERING	Phasing out of the old Degree in COMPUTER ENGINEERING	Phasing out of TECHNICAL ENGINEERING IN MANAGEMENT IT	Phasing out of TECHNICAL ENGINEERING IN SYSTEMS IT
2010-2011	1st Year	1st Year	1st Year	1st Year
2011-2012	2nd Year	2nd Year	2nd Year	2nd Year
2012-2013	3rd Year	3rd Year	3rd Year	3rd Year
2013-2014	4th Year	4th Year		
2014-2015		5th Year		

Once a course has been phased out, the subjects corresponding to the course will no longer be taught. Students who do not wish to take the new degree course subjects are entitled to sit four examinations in the two academic years following the end of each year. Any students wishing to continue their studies after sitting and failing these tests will be required to follow the new plan, according to the adaptation system established in the new plan.

DEGREE IN COMPUTER ENGINEERING. SYLLABUS SUMMARY


informatica

- [Verified Report](#)
- [Resolution from the Universities Council: Positive verification](#)
- [Resolution from the Universities Council: Accreditation renewal](#)
- [Authorization from the Valencian Government](#)

Internal Quality Assurance System (SGIC) of the Title

- Structure of the Centre for Quality
 - [Comission of Internal Quality Guarantee](#)
 - [Other Commissions](#)
- [Handbook SGIC](#)
- [Procedures](#)
 - [Strategic \(PE\)](#)
 - [Key \(PC\)](#)
 - [Support \(PA\)](#)
 - [Measurement \(PM\)](#)
- [Management of the SGIC \(Access to ASTUA\)](#)

Follow-up of the Title

- [International quality label](#)  ^s
ell
- [Self-reports UA](#)
- [External reports AVAP](#)
- [Other reports](#)
- [Improvement Plans](#)
- [Progress and Learning Outcomes](#)

Information about the Centre	General information for students
<ul style="list-style-type: none"> • Polytechnic University College Telephone:+ 34 96 590 3648 Fax:+ 34 96 590 3644 eps@ua.es http://www.eps.ua.es/ • Mobility Programmes • Work experience with companies and institutions • Centre/Study guide • Reception and welcome events • Tutorial Action Programme • Frequently asked questions about Computer Engineering • Frequently asked questions about the implementation of degrees at the implementation of degrees at the Polytechnic University College 	<ul style="list-style-type: none"> • Grants and assistance • Accommodation • Student refectories and cafeterias • Transport • Emergency medical care • Insurance • Services for students with special needs • Student representation and participation • University student identity card (TIU) • Frequently asked questions
UA: General Regulations	+ Information about qualifications
<ul style="list-style-type: none"> • Academic regulations and procedures of the University of Alicante 	<ul style="list-style-type: none"> • Official State Gazette (BOE) on publication of course programmes Error Correction Modification Modification • Presentation document for the Degree in Computer Engineering • Information pamphlet • Video presentation of the degree