

DEGREE IN TECHNICAL ARCHITECTURE (2024-25)

Codi	Plan de grau	Plan
040	040	040
Codi	Títol	Titulació
040	040	040

ÀREA

Engineering and Architecture

Plan

DEGREE IN TECHNICAL ARCHITECTURE

SPD DE GRADUACIÓ

040

GRADUACIÓ DE TÈCNIC D'ARQUITECTURA

040

ESTADUS MÀXIMS CONSUMIBLES COM

040

FECHES DE EXAMEN

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

040

GENERAL AIMS

The degree is of a general nature, enabling graduates to work in the wide range of activities currently performed by Quantity Surveyors, whilst at the same time providing access to the kind of specialisation which takes place in the labour market, through the cyclical structure of university courses.

The general aim of the new Degree in technical architecture is to provide graduates with a general, European-standard education in the theories, techniques and technologies corresponding to the building sector, within a framework of continuous improvement and transmission of learning.

The Department of Education and Science Order ECI/3055/2007 of 27 December, in response to Additional Provision Nine of Royal Decree 1393/2007 of 29 October, regulating official university programmes, established that students should acquire the following skills:

1. Drawing of building works, installations and elements, carrying out the quality and quantity control of constructed works by means of establishing and managing control plans for materials, systems and execution, drawing up the corresponding logs for inclusion in the Building Manual. The financial control of works, drawing up the corresponding certificates and the costs of the works performed.
 2. Drafting labour health and safety studies and plans and coordinating them in building works, through projects and execution phases.
 3. Economic viability calculations, measurements, assessment, appraisal and studies, appraisal, inspection and analysis of building pathologies and defects and drafting of the corresponding reports and technical documents; plans and blueprints of plots and buildings.
 4. Drawing up technical projects and overseeing building works, within the legal scope of the qualification.
 5. Managing new building technologies and participating in building quality management processes, analysing, appraising and verifying building energy efficiency and sustainability studies.
 6. Overseeing and managing building use, preservation and maintenance, drawing up the corresponding technical documents. Carrying out service life studies for materials, building systems and buildings. Overseeing the treatment of demolition and construction waste.
 7. Technical consultancy in the manufacturing processes of the materials and elements used in building construction.
 8. Overseeing the property process as a whole. Technical representation of construction companies in building works.
- In addition to the above skills, regulated by current legislation, the following skills are also expected to be acquired to complement the aims of the degree course:
9. Identification, analysis and control of labour risks in building works, taking labour health and safety requirements into account.
 10. An understanding of the logic and operation of the economic sphere of construction companies.
- An understanding of concepts such as inflation, unemployment, GDP, productivity, the public sector, investment, the housing market, housing policy and trends, among others, and their implications for developers.
- An understanding of the workings of financial management systems in construction companies, the banking structure, means of payment. Consensus with the operation of the property and housing markets in Spain, as a basis for decision-making in construction.
- Solving practical construction business problems using economic calculation tools, such as calculating mortgage quotas, estimating growth in construction costs, calculating accessibility to housing for families or pricing tenders, among others.
11. An understanding of real estate distribution and the organisation of the property market.
- Grouping the requirements of the basic department of the construction of non-residential properties and their implications for developers. The interaction between mortgage markets and development financing schemes.
- Calculating the yield of building companies, estimating construction costs and making investment decisions.
- Calculating the price of land.

- [Description 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

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	CREDITS
CODE	60
COMPULSORY	100
OPTIONAL	18
FINAL PROJECT	12
TOTAL CREDITS	190

GENERAL DESCRIPTION OF THE COURSE PROGRAMME

The course has been structured on the basis of three subject types:

Core subjects are taught in the first half of the study programme and comprise a total of 80 ECTS credits, of which 54 belong to Engineering and Architecture and the other 26 to Social and Legal Sciences.

Prior to evaluation for the final grade, the student must demonstrate competence in a foreign language. Among other forms of accreditation at the University of Alicante is to be recognised at least level B1 of the Common European Framework for modern languages^{1,2}, which may be relaxed in the future.

Compulsory subjects are aimed at guaranteeing that students acquire the skills covered by the Degrees, comprise 100 ECTS credits, in addition to the 12 ECTS credits corresponding to the compulsory Final Project, which is carried out in the final semester and is used to assess the level of skills acquired.

Optional subjects are aimed at providing specialisation and are worth 18 ECTS credits. Students have two possibilities with regard to these credits. Firstly, if they wish to follow a recognised route, they must take the 12 credits offered in one of the proposed routes, plus another 6 ECTS from any other subject offered. Secondly, if they do not wish to take one of the official routes, they may take 18 ECTS from any three of the optional subjects. The optional subjects include the possibility of outside work experience.

The student shall be guaranteed the opportunity to obtain academic recognition to a maximum of six credits of selective total completed curriculum, by participation in activities: university culture, sports, student representation, solidarity and cooperation.

Before the start of each academic year, the Governing Council will define the nature of the activities taking the academic recognition.

OPTIONAL SUBJECTS AND ROUTES

	ABREVIATURA	ECTS
ROUTE 1. INFORMATION IN HISTORICAL BUILDINGS	RESEARCH PROJECT AND WORKSHOPS	6
	RECOGNITION FOR PARTICIPATION IN HISTORICAL BUILDINGS	6
	PROJECT MANAGEMENT	6
ROUTE 2. REAL ESTATE MANAGEMENT	DEVELOPMENT AND MANAGEMENT OF THE REAL ESTATE MARKET	6
	IT APPLICATIONS IN CONSTRUCTION	6
	LANDSCAPE ARCHITECTURE	6
ROUTE 3. ENERGY EFFICIENCY	ENERGY EFFICIENCY I	6
	ENERGY EFFICIENCY II	6
	ENERGY EFFICIENCY III	6
ROUTE 4. WORK EXPERIENCE	RESEARCH PROJECT	6
	RECOGNITION FOR PARTICIPATION IN HISTORICAL BUILDINGS	6
	RECOGNITION FOR PARTICIPATION IN HISTORICAL BUILDINGS	6
NON-ROUTE SUBJECTS	RESEARCH I	6
	RESEARCH II	6
	RESEARCH III	6

LANGUAGE REQUIREMENT IN A FOREIGN LANGUAGE

Students who study an undergraduate degree at the University of Alicante must complete a minimum level of B1 in a foreign language (B1 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 assess the final year project.

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

2025

LANGUAGE TEACHING COMPETENCE CERTIFICATE

Students who want to take a course in the university teaching their final studies are recommended to obtain the teaching competence certificate (certificate under foreign languages).

The certificate can be obtained by taking specific courses in your university studies or by taking the BA teaching competence course in Valencià, German, French and English.

2025

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 evaluation of it may be individual or coordinated. Each student will prepare the project under the supervision of a tutor. Defending students will show the relevant content content of an integrated way, as well as the required competences associated to the undergraduate degree.

In order to register for the final year project, students must comply with the requirements established in the "Regulation for graduation credits 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 180 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 in B1 level of a foreign language (B1 is recommended) must be confirmed.

2025

- Access routes
- Procedure for applying for admission
- Number of places and pass marks

ACCESS ROUTES

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

- Holders of the degree certificate issued by the Spanish Ministry of Education, Higher Education and Vocational Training, the corresponding one in Valencia.

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

A Technical Architecture

2. FOREIGN 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 BACCALAUREATE. Vocational Baccalaureate qualifications can be taken previously, upon completion of three, six or twelve, or under admission in Spain in the previous educational year. Official studies for the degree can be through the professional title.

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 SUBSIDIARY ORDER OR OTHER STATES WITH WHICH SPAIN HAS AN INTERNATIONAL AGREEMENT. Admission is required and is issued by International Recognition of Education & Research (DIRE).

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

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

Year of the Degree	Mathematics in particular	Mathematics Musical I	English	Chemistry de Tercer y Medianoche	Chemical Physics I	Chemical Physics II	Chemistry	Elements de la Empresa	Electronics	Physics	Geography	Group	History de la Música y de la Danza	History de Arte	Latin	Language y Física Musical	Literature Universal	Historia Aplicada a las Ciencias Sociales I	Matemáticas II	Química	Técnicas de Expresión Gráfica Plástica	Neurología Industrial I
2015-16	0.1																					
2016-17	0.2		*	*		*	*	*	*	*									*	*		*
2017-18	0.1		*	*			*	*	*										*	*		*
2018-19	0.2					*		*	*										*	*		*

PROCEDURE FOR APPLYING FOR ADMISSION: PRE-ENROLLMENT AND REGISTRATION

- Anticipated number of places offered during the first pre-enrollment session: 240.
- In order to apply for a place, the procedure and pre-enrollment periods established each year must be observed. [Access to the website for admission procedure, the procedure](#)
- Applicants admitted to a course must formally register within the time scale established annually in the enrollment calendar. Registration [website](#).

NUMBER OF PLACES AND PASS MARKS

COURSES	NUMBER OF PLACES	PASS MARKS:				GRADUATES	SPORTSPEOPLE	DISABLED
		GENERAL	OVER 25	OVER 40	OVER 45			
2015-11	250	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2016-12	250	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2017-13	250	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2018-14	250	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2019-15	250	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2020-16	250	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2021-17	250	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2022-18	250	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2023-19	250	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2024-20	250	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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

PROFESSIONS FOR WHICH THE DEGREE QUALIFIES ITS HOLDER

This degree entitles graduates to work as Quantity Surveyors. The professional attributes of the course are regulated by law. The free exercise of the profession is supervised by the Professional Associations of Draughtsmen and Quantity Surveyors. Graduates may also attend professional Master's Degree courses, research courses and other post-graduate courses, in accordance with current regulations.

IMPLEMENTATION TIMESCALE

The proposed course programme for the University of Alicante Degree in Building Engineering will be implemented on a year-by-year basis. This involves replacing each year of the programme leading to a Diploma in Quantity Surveying currently being taught at the University of Alicante Polytechnic University College, (amended 1999 programme), as follows:

TIMESCALE		
ACADEMIC YEAR	IMPLEMENTATION OF DEGREE IN QUANTITY SURVEYING	PHASING OUT OF DIPLOMA IN QUANTITY SURVEYING
2010-2011	1 st YEAR	2010-2011
2011-2012	2 nd YEAR	2011-2012
2012-2013	3 rd YEAR	2012-2013
2013-2014	4 th YEAR	

CREDIT EQUIVALENCE BETWEEN THE FORMER DEGREE IN QUANTITY SURVEYOR AND THE NEW DEGREE IN QUANTITY SURVEYOR

QUANTITY SURVEYOR	Credits	NEW DEGREE IN QUANTITY SURVEYOR	Credits
ADAPTED SUBJECTS		ADAPTED SUBJECTS	
Building Materials (2302)	10.0	Introduction to Building Materials	5
		Construction Materials I	5
Physics for Quantity Surveyors (2301)	12.0	Basic Physics of Facilities	6
		Basic Physics of Structures	6
Foundations of Applied Mathematics (2302)	6.0	Foundations of Applied Mathematics I	6
Extended Foundations of Applied Mathematics (2301)	6.0	Foundations of Applied Mathematics II	6
Architectural Drawing (2300)	6.0	Graphic Expression in Building I	6
Descriptive Geometry (2305)	6.0	Descriptive Geometry	6
Drawing Architectural Details (2316)	6.0	Graphic Expression in Building II	6
Introduction to Construction and the History of Building (2303)	10.5	Basics of Construction I	6
		History of Construction	6
Topography and Siting (2308)	6.0	Topography	6
Installations (2304)	13.5	Installations I	6
		Installations II	6
Building Structures: Metal Structures (2307)	12.0	Structural Calculation I	6
Legal Aspects of Building: Town-Planning Management (2315)	6.0	Building Law and Legislation	6
Applied Economics (2306)	6.0	Applied Economics in the Construction Industry	6
Work Equipment, Facilities and Auxiliary Resources (2308)	6.0	Work Equipment, Installations and Auxiliary Resources	6
Extended Construction Materials (2312)	6.0	Construction Materials II	6
Constructing Structural Elements (2311)	12.0	Constructing Structural Elements I	6
		Constructing Structural Elements II	6
Extended Organization and Control of Works, Measurements, Budgeting and Evaluation (9694)	6.0	Managing the Construction Process	6
Construction of Non-Structural Elements (2304)	12.0	Construction of Non-Structural Elements I	6
		Construction of Non-Structural Elements II	6
Quality Control (2306)	7.5	Quality Control and Management of Materials and Work	6
Structures in Reinforced Concrete (2308)	6.0	Structural Calculation II	6
Technical Office (9695)	6.0	Building Projects	6
Organization and Control of Works, Measurements, Budgeting and Evaluation (9693)	6.0	Economic Management: Measurements, Budgets and Property Surveys	6
Health and Safety (9692)	6.0	Health and Safety in Construction	6
Managing Town-Planning (2316)	7.5	Introduction to Town-Planning and Management	6
Building Pathology, Maintenance and Preservation (2304)	7.5	Pathology and Maintenance of Buildings	6
Conservation Strategies for Architectural Heritage (2321)	7.5	Conservation Strategies for Architectural Heritage	6
Insulation and Soundproofing (2302)	7.5	Building Acoustics	6
Temperature Control Installations (2302)	7.5	Temperature Control Installations	6
Work Experience	6.0	Work Experience I and II	12
Computer Applications in Building (2315)	7.5	Computer Applications in Building	6
Extended Applied Economics (2306)	7.5	Distribution and Organization of the Pricing Market	6
Technical Physics and Levelling (2317)	7.5	Siting Construction Elements	6
TOTAL	265.5	TOTAL	249
NON-ADAPTED SUBJECTS		NON-ADAPTED SUBJECTS	
Extended Mathematics (2318)	7.5	NOT ADAPTED	
Convexity in Maps (2302)	4.5	NOT ADAPTED	
Graphs and Data Collection (2316)	7.5	NOT ADAPTED	
Topographic Surveys (2305)	7.5	NOT ADAPTED	
Production and Control of Works (2314)	7.5	NOT ADAPTED	
Final Project (2303)	4.5	NOT ADAPTED	
Computer-Assisted Drawing (9696)	7.5	NOT ADAPTED	
NOT ADAPTED		Advanced Graphics	
NOT ADAPTED		Project Management	
NOT ADAPTED		Technical Projects	
NOT ADAPTED		Final Project	
NOT ADAPTED		Basics in Building Engineering	
TOTAL	46.5	TOTAL	

Credits taken by students of the Quantity Surveyor course and not adapted according to the above table may be admitted for the Degree Course, up to a maximum of 6 optional credits covering the activities mentioned in Art. 12.3 of Royal Decree 1333/2007 (participation in cultural, sporting, student union, charity and cooperation activities).

In addition to the adaptation table for subjects in the proposed course programme and subjects in the Quantity Surveyor plan being phased out, the terms of the regulations for enrolling and progressing at Alicante University must also be respected.

Transitional Provision Two. 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 course programme. Old (LRU) and new (ECTS) credits are one-to-one equivalent, although overall limits will be established for the credit validation system.

Students being phased out and replaced by the proposed degree course: Quantity Surveyor

According to the publication of the amended 1959 course programme of the University of Alicante, Official State Gazette 01/12/1991, amended Official State Gazette 29/11/2002. General guidelines published in Official State Gazette 27/08/1992.

BRIDGING COURSE FOR ARCHITECTURAL TECHNICIANS WHO WISH TO OBTAIN THE DEGREE IN ARCHITECTURAL TECHNICIANS

- [Access to the course](#)
- [Access to the course](#)
- [Access to the course](#)
- [Access to the course](#)
- [Access to the course](#)

JUSTIFIED NUMBER OF STUDENTS

Given the experience of other schools offering bridging courses this academic year, which have received a high number of applications for places on these courses, and taking into account the teaching resources of the departments involved, it is proposed to offer 200 places for Architectural Technicians.

ENTRY AND ADMISSION OF STUDENTS

In response to the pressing needs of present holders of the Architectural Technician qualification, as identified by both the Spanish General Council of Architectural Technicians and a significant group of Architectural Technicians in professional practice represented by the Official college of Quantity Surveyors, Architectural Technicians and Construction Engineers of Alicante, the Polytechnic University College at the University of Alicante proposes to offer a Bridging Course intended for holders of the Architectural Technician qualification, in accordance with Royal Decree 1023/2007 and following the directions established by the University of Alicante and in this document. This Bridging Course will qualify these Architectural Technicians for positions at the same level in Public Administration as graduates.

Where the number of applications exceeds places offered, these will be assigned in accordance with the following priority criteria:

- 55% Overall academic record.
- 20% To be a graduate of the University of Alicante (from the Polytechnic University of Valencia, having completed studies at the delegation from the University of Alicante) in the degree that gives access to the course of adaptation.
- 25% Teaching collaborations with the School of Engineering.

Holders of the Architectural Technician qualification from other universities who wish to obtain the Degree in Architectural Technician from the University of Alicante by taking this bridging course will be required to take the subjects indicated by the Centre's Commission for Recognition and Transfer of Credits, determined according to the subjects studied previously for the Diploma. Any architectural technicians who need to study subjects not included in the bridging course they will not be admitted onto the course.

DEGREE BRIDGING COURSE PROGRAMME

The bridging course will consist of the subjects indicated in the Table below:

Subject	Academic year on the Degree course	Subject Type	Credits	Doc. #
Final Project	4	Compulsory	12	112
Technical projects	4	Compulsory	9	111
Fundamentals of IT in Construction Engineering	1	Core	6	96
Route II Property management or Work Experience	4	Optional	12	115

ROUTE II PROPERTY MANAGEMENT		
OPTIONAL	Subjects	Credits
	Project management	6
	Distribution and Organisation of the property market	6

ROUTE II WORK EXPERIENCE		
OPTIONAL	Subjects	Credits
	Work Experience I	6
	Work Experience II	6

To successfully complete the optional component of the course, students may choose between Route II or Work Experience.

It is envisaged that teaching hours will be adapted to the particular circumstances of the students for whom this Bridging Course is intended, most of whom may be working. This timetable will achieve the dual objective of enabling students to attend the course, and avoiding any possible conflict of teaching duties between the Bridging Course and the Degree course, in accordance with the timetable established in the course programme.

ESTIMATED QUANTITATIVE VALUES FOR THE INDICATORS LISTED BELOW AND RATIONALE FOR THE ESTIMATION

With respect to the bridging course, it is envisaged that the indicators used to evaluate learning outcomes will be better compared to typical values for the Degree, since students will already have ample knowledge of the subject matter. Therefore, an improvement in indicators is envisaged and in consequence, the following values are proposed:

- Effectiveness rate > 80 %.
- Graduation rate > 50 %.
- Dropout rate < 20 %.

IMPLEMENTATION TIMESCALE FOR THE BRIDGING COURSE

The course of adaptation has registered high levels of demand in previous editions having been more than 200 students each year without the possibility of registration. In view of these data, it is expected that the first academic year in which it is not offered (2013/2014), there will be a high demand for enrolment of new students enlisting graduates from earlier plans. This would significantly reduce the chances of access to the level of new students from senior high school and vocational training and competing for the same seats. To resolve this situation, it is proposed that an adaptation period, while demand is sufficient to cover 50% of places offered in this course.

