Teaching Guide				
Identifying Data				2023/24
Subject (*)	Degree Final Project		Code	670G01140
Study programme	Grao en Arquitectura Técnica			
Descriptors				
Cycle	Period	Year	Type	Credits
Graduate	2nd four-month period	Fourth	Obligatory	12
Language	Spanish			
Teaching method	Face-to-face			
Prerequisites				
Department	Construcións e Estruturas Arquitectónicas, Civís e AeronáuticasDereito PrivadoEconomíaEnxeñaría CivilExpresión Gráfica ArquitectónicaFísica e Ciencias da Terra			
Coordinador	Robles Sanchez, Susana	E-mail	susana.robles@udc.es	
Lecturers	Robles Sanchez, Susana	E-mail	susana.robles@udc.es	
Web	euat.udc.es/grado-en-ie/informacion-tfg			
General description	La información relativa al Trabajo Fin de Grado está disponible en la web de la Escuela. Toda la información aquí: http://euat.udc.es/es/informacion-tfg			

Study programme competences / results	
Code	Study programme competences / results
A36	A0.1 Ability to use applied knowledge of calculus, numerical analysis, linear algebra, coordinate and differential geometry, statistical analysis and probability.
A37	A0.2 Applied knowledge of the principles of general mechanics, structural systems statistics, mass point geometry, and elastic behaviour of solids (principles and analysis methods).
A38	A0.3 Ability to use spatial representation systems, sketching, dimensioning, and graphical representation language and techniques for building elements and processes.
A39	A0.4 Understanding of the chemical properties of the materials used in construction, how they are made and tested, their geological origin and environmental impact, and recycling and waste management strategies.
A40	A0.5 Understanding of the basic and theoretical principles of fluid mechanics, hydraulics, electricity and electromagnetism, calorimetry, hygrothermal analysis and acoustics applied to construction.
A41	A0.6 Working knowledge of the concept of business, legal business frameworks, models of organisation, planning, oversight and strategic decision-making in contexts of risk, certainty and uncertainty, systems of production, costs, funding sources, and budget and financial planning.
A42	A0.7 Ability to manage small companies and work as part of a multidisciplinary team at a large company.
A43	A0.8 Basic understanding of the legal framework governing public sector bodies and the procedures for public and private sector procurement.
A44	A1.1 Ability to read and create plans and drawings, carry out data collection, draft site plans and conduct as-built surveys of completed sections of the work.
A45	A1.2 Understanding of architectural infographics and construction mapping methods and techniques.
A46	A1.3 Ability to use topographical surveying equipment, and conduct subsequent drafting of site and building plans and setting out.
A47	A2.1 Understanding of the different types and physical and mechanical properties of traditional and prefabricated building materials and systems.
A48	A2.2 Ability to adapt building materials to the type of building and its intended use, manage, oversee and monitor reception, quality and installation of materials, completion of each stage of the work, and final tests and checks.
A49	A2.3 Understanding of the historical evolution of building elements and techniques, and the structural systems behind certain stylistic forms.
A50	A2.4 Ability to select building elements and systems, define their function, assess compatibility, and oversee their installation and implementation.
A51	A2.5 Ability to address and resolve construction details.

A52	A2.6 Understanding of the specific monitoring and inspection procedures to be carried out during construction.
A53	A2.7 Ability to establish the signs and causes of building damage, propose solutions for the repair and prevention of defects, and analyse the useful life of building elements and systems.
A54	A2.8 Ability to participate in renovation work on buildings and restoration and conservation work on built heritage.
A55	A2.9 Ability to create and manage the implementation of building maintenance plans and manuals.
A56	A3.1 Ability to apply building rules and standards, and draw up technical specifications in relation to building methods and procedures.
A57	A3.2 Ability to apply specific standards and regulations governing technical installations.
A58	A3.3 Ability to carry out initial sizing, design, calculation and testing of structures, and oversee their implementation.
A59	A3.4 Ability to design and develop building systems and facilities, plan and monitor their installation, inspect commissioning and completion testing, and monitor maintenance.
A60	A3.5 Understanding of techniques and procedures for assessing building energy efficiency.
A61	A3.6 Ability to analyse and create building evacuation plans.
A62	A4.1 Ability to plan and organise construction processes, equipment, and human and technical resources to carry out construction and maintenance work.
A63	A4.2 Understanding of construction law and the contractual relationships created at different stages of the building process.
A64	A4.3 Ability to create a basic health and safety study, and a health and safety survey and plan, and coordinate workplace safety at the planning and building stages of the project.
A65	A4.4 Ability to manage quality control during construction, to draft, apply, implement and update quality control plans and manuals, to audit companies? quality control management practices, and to create a building record for the project.
A66	A4.5 Understanding of the professional framework and qualifications structure for Architectural Technicians, professional offices and associations, codes and regulations governing the activities of the profession, and the responsibilities associated with the role.
A67	A4.6 Working knowledge of legislation and specific regulations governing construction health and safety management and protection.
A68	A4.7 Understanding of environmental impact and sustainability assessment in relation to building and demolition processes.
A69	A4.8 Understanding of the roles and responsibilities of the different participants in the building process, their professional or business structures, and associated administrative and management processes.
A70	A4.9 Understanding of the professions and basic procedures involved in building and development.
A71	A5.1 Ability to estimate basic, unit, supplementary unit and item prices, create a price plan, analyse and monitor costs during the construction process, and prepare quotes.
A72	A5.2 Ability to carry out market research, assessment and valuation, building feasibility studies, and appraisal and valuation of financial risk and losses.
A73	A5.3 Understanding of the legal framework for urban planning and management.
A74	A6.1 Ability to use advanced tools to meet and manage technical plan elements.
A75	A6.2 Ability to draft technical plans for work and building that do not require architectural plans, and for demolition and decoration works.
A76	A6.3 Ability to draft documents related to multidisciplinary construction projects.
A77	A6.4 Ability to analyse and implement construction plans.
A78	A6.5 Ability to analyse, design and implement solutions to create universal access to buildings and their external environment.
B31	B1 Students will demonstrate knowledge and understanding of subjects that build upon the foundation of a general secondary education using advanced textbooks and ideas and analyses from the cutting edge of their field.
B32	B2 Students will be able to use their knowledge professionally and will possess the skills required to formulate and defend arguments and solve problems within their area of study.
B33	B3 Students will have the ability to gather and interpret relevant data (especially within their field of study) in order to make decisions and reflect on social, scientific and ethical matters.
B34	B4 Students will be able to communicate information, ideas, problems and solutions to specialist and non-specialist audiences alike.
B35	B5 Students will develop the learning skills and autonomy they need to continue their studies at postgraduate level.
B36	B6 Ability to analyse and summarise information.
B37	B7 Ability to organise, plan and work as part of a team.
B38	B8 Ability to search for, analyse, select, apply and manage information with a view to continuing their professional self-education on an ongoing basis.
B39	B9 Digital literacy skills relevant to their area of study.
C1	Adequate oral and written expression in the official languages.

C3	Using ICT in working contexts and lifelong learning.
C4	Acting as a respectful citizen according to democratic cultures and human rights and with a gender perspective.
C5	Understanding the importance of entrepreneurial culture and the useful means for enterprising people.
C6	Acquiring skills for healthy lifestyles, and healthy habits and routines.
C7	Developing the ability to work in interdisciplinary or transdisciplinary teams in order to offer proposals that can contribute to a sustainable environmental, economic, political and social development.
C8	Valuing the importance of research, innovation and technological development for the socioeconomic and cultural progress of society.
C9	Ability to manage times and resources: developing plans, prioritizing activities, identifying critical points, establishing goals and accomplishing them.

Learning outcomes	
Learning outcomes	Study programme competences / results

Según la ORDEN ECI/3855/2007, de 27 de diciembre, por la que se establecen los requisitos para la verificación de los títulos universitarios oficiales que habiliten para el ejercicio de la profesión de ArquitectoTécnico, el TFG comprenderá la presentación y defensa ante un tribunal universitario del mismo, consistente en un ejercicio de integración de los contenidos formativos recibidos y las competencias adquiridas.	A36 A37 A38 A39 A40 A41 A42 A43 A44 A45 A46 A47 A48 A49 A50 A51 A52 A53 A54 A55 A56 A57 A58 A59 A60 A61 A62 A63 A64 A65 A66 A67 A68 A69 A70 A71 A72 A73 A74 A75 A76 A77 A78	B31 B32 B33 B34 B35 B36 B37 B38 B39	C1 C3 C4 C5 C6 C7 C8 C9

Contents	
Topic	**Sub-topic**
PFG	Proyecto dirigido por un profesor de la titulación, consistente en un ejercicio de integración de los contenidos formativos recibidos y las competencias adquiridas.

Planning				
Methodologies / tests	Competencies / Results	Teaching hours (in-person & virtual)	Student?s personal work hours	Total hours
Supervised projects	A78 A77 A76 A75 A74 A73 A72 A71 A70 A69 A68 A67 A66 A65 A64 A63 A62 A61 A60 A59 A58 A57 A56 A55 A54 A53 A52 A51 A50 A49 A48 A47 A46 A45 A44 A43 A42 A41 A40 A39 A38 A37 A36	70	195	265
Oral presentation	B31 B32 B33 B34 B35 B36 B37 B38 B39 C1 C3 C4 C5 C6 C7 C8 C9	1	1	2
Personalized attention		33	0	33
(*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.				

Methodologies	
Methodologies	Description
Supervised projects	Según la ORDEN ECI/3855/2007, de 27 de diciembre, por la que se establecen los requisitos para la verificación de los títulos universitarios oficiales que habiliten para el ejercicio de la profesión de ArquitectoTécnico, el TFG comprenderá la presentación y defensa ante un tribunal universitario del mismo, consistente en un ejercicio de integración de los contenidos formativos recibidos y las competencias adquiridas.
Oral presentation	Defensa oral pública ante un tribunal del trabajo realizado.

Personalized attention	
Methodologies	Description
Oral presentation Supervised projects	Todo el proceso estará dirigido por el Director del PFG, que será seleccionado por el alumno o por el Centro.

Assessment			
Methodologies	Competencies / Results	Description	**Qualification**
Oral presentation	B31 B32 B33 B34 B35 B36 B37 B38 B39 C1 C3 C4 C5 C6 C7 C8 C9	La evaluación se hará según el Reglamento de los TFG de la EUAT.	25

Supervised projects	A78 A77 A76 A75 A74 A73 A72 A71 A70 A69 A68 A67 A66 A65 A64 A63 A62 A61 A60 A59 A58 A57 A56 A55 A54 A53 A52 A51 A50 A49 A48 A47 A46 A45 A44 A43 A42 A41 A40 A39 A38 A37 A36	El análisis previo del trabajo realizado por parte del tribunal establecerá un 75% de la calificación resultante.	75

Assessment comments
https://euat.udc.es/images/INFORMACION_GENERAL/20210324_REGLAMENTO_TFG_ES.pdf El Reglamento está en proceso de cambio, por lo que se aplicará el vigente en el momento de la solicitud de la defensa. La calificación resultante del PFG será el resultado de la ponderación, a partes iguales del tribunal (3 miembros) y el Director del PFG. (25% cada uno).

Sources of information	
Basic	
Complementary	

Recommendations
Subjects that it is recommended to have taken before
Subjects that are recommended to be taken simultaneously
Subjects that continue the syllabus
Other comments
Como trabajo fin de grado, sólo se podrá defender si se han superado todas las asignaturas del mismo.

(*)The teaching guide is the document in which the URV publishes the information about all its courses. It is a public document and cannot be modified. Only in exceptional cases can it be revised by the competent agent or duly revised so that it is in line with current legislation.