



## Teaching Guide

Identifying Data					2019/20
Subject (*)	Technical Projects I	Code	670G01023		
Study programme	Grao en Arquitectura Técnica				
Descriptors					
Cycle	Period	Year	Type	Credits	
Graduate	1st four-month period	Third	Obligatory	6	
Language	Spanish				
Teaching method	Face-to-face				
Prerequisites					
Department	Expresión Gráfica Arquitectónica				
Coordinador	Gonzalez Sarceda, Manuel	E-mail	manuel.gsarceda@udc.es		
Lecturers	Gonzalez Sarceda, Manuel Losada Pérez, Carlos Perez Doval, Luis	E-mail	manuel.gsarceda@udc.es c.losada@udc.es luis.pdoval@udc.es		
Web					
General description	<p>IT HAS TO HAVE THE CONCEPTUAL BASIC NOTIONS ABOUT THE DESIGN, BY WHAT THE STUDENT WILL FORM IN METHODOLOGIES TO BE ABLE TO FACE UP TO DESIGNS OF EDIFICACIÓN, SO MUCH OF REHABILITATION AS OF NEW CONSTRUCTIONS, PURCHASING THE CAPACITY TO DRAFT, ANALYSE, CONTROL, MANAGE AND DEVELOP TECHNICAL PROJECTS IN THE FIELD OF THE EDIFICACIÓN. STUDY OF THE ANTECEDENTS AND THE NEEDS OF PLANNING OF THE DESIGN IN THE REHABILITATION. RELATIVE KNOWLEDGES TO THE TAKING OF DATA AND PREVIOUS PLANNING. CAPACITY FOR THE ESTABLISHMENT OF A METHODOLOGICAL PROCESS IN THE REALISATION OF THE PROJECT. KNOWLEDGE OF THE BASIC ELEMENTS OF THE DESIGN, HIS FORM AND HIS IMPORTANCE IN THE PHYSICAL SPACE. CAPACITY TO REALISE PROJECTS OF REHABILITATION OR RESTORATION ATTENDING SO MUCH TO HIS FORMAL APPEARANCE, FUNCTIONAL OR TO HIS EXECUTION. ASSESSMENT OF TIME AND METHODS OF EXECUTION. CAPACITY FOR THE REALISATION OF A PROJECT OF FEASIBILITY WITH EXCELLENT RESULT.</p>				

## Study programme competences / results

Code	Study programme competences / results
A15	Redactar proxectos técnicos no ámbito da edificación.
A27	Desenvolver auditorías de proxectos e de execución de obras.
A29	Elaborar estudos, certificados, ditames, documentos e informes técnicos.
A31	Redactar, analizar, controlar, xestionar e desenvolver proxectos técnicos.
B1	Capacidade de análise e síntese.
B2	Capacidade de organización e planificación.
B7	Capacidade de traballo en equipo.
B13	Compromiso ético.
B15	Adaptación a novas situacións.
B16	Capacidade de aplicar os coñecementos na práctica.
B19	Capacidade de liderado, diálogo e negociación.
B23	Orientación a resultados.
B24	Orientación ao cliente.
C1	Adequate oral and written expression in the official languages.
C2	Mastering oral and written expression in a foreign language.
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	
Aptitude to draft technical projects of works and constructions, that do not require architectural project, as well as projects of demolición and decoration.	A15	
Knowledges of the organisation of the professional work and of the studies, offices and professional societies, the reglamentación and the legislation related with the functions that develops the Technical Architect and the frame of responsibility associated to the activity.	A27	
Capacity of analysis of the projects of execution and his traslación to the execution of the works.	A27	
Aptitude to draft documents that form part of projects of execution elaborated in shape multidisciplinary.	A29	
Capacity to apply the normative technician to the process of the edificación, and generate documents of technical specification of the procedures and constructive methods of buildings.	A29 A31	
Aptitude to analyse, design and execute solutions that facilitate the universal accessibility in the buildings and his surroundings	A31	
Capacity to analyse and draft projects of evacuation of buildings.	A31	
Capacity of analysis and synthesis.		B1
Capacity of organisation and planning.		B2
Capacity of work in team.		B7
Ethical commitment.		B13
Adaptation to new situations		B15
Capacity to apply the knowledges in practice.		B16
Capacity of leadership, dialogue and negotiation.		B19
Orientation to results.		B23
Orientation to the client.		B24
Prpers expressed correctly, so much of oral form as writing, in the official tongues of the autonomous community.		C1
Dominate the expression and the understanding of oral form and writing of a foreign language.		C2
Use the basic tools of the technologies of the information and the communications (TIC) necessary stop the exercise of the his profession and stop the learning along the his life.		C3
Prpers developed stop the exercise of an open citizenship, literate, critical, engaged, democratic and solidary, able to analyze the reality, diagnose problems, formulate and implant solutions based in the knowledge and geared to the very common.		C4
Understand the importance of the entrepreneurial culture and know the means to the range of the entrepreneurial people.		C5
Value critically the knowledge, the technology and the available information to resolve the problems with the that owe to confronted.		C6
Assume how professional and citizen the importance of the learning along the life		C7
Valuing the importance of research, innovation and technological development for the socioeconomic and cultural progress of society.		C8
Ability to manage times and resources: developing plans, prioritizing activities, identifying critical points, establishing goals and accomplishing them.		C9

Contents	
Topic	Sub-topic
Introduction	Development of the asignatura, length ,assistance, assessment and material
Project	Definition of the project, the parts of the manufacture of one project, the project of edificación. Definition and parts of the even.



Tools of a diseño	The point; Línea; Angles and flat figures; Volúmenes; Colores; The vertical and horizontal and the meaning of all estos elements in the symbolic plane.
The basic plane and the importance of the handle of this flat	Basic plane and disposal of points of maximum and minimum tension. The diseño graphic. Application of the basic flat method.
Methodology to project	Zones, subzonas, areas and interrelación between areas and zones. Knowledge of the space and of the object that occupy it. Project areas of the building, bedroom, be, kitchen, bathroom, etc.
Project of feasibility	Development of one project of rehabilitaci3n stop a client of a building cataloged of the Coruña. Practical case.

Planning				
Methodologies / tests	Competencies / Results	Teaching hours (in-person & virtual)	Student?s personal work hours	Total hours
Document analysis	A27 B1 B2 B7 B13 B16 B23 C2 C3 C4 C5 C6	0	30	30
Laboratory practice	A27 A31 B1 B2 B7 B16 B23 B24 C1 C3 C6 C7 C9	28	20	48
Problem solving	A15 A29 A31 B1 B2 B7 B16 B24 C1 C3 C4 C7 C8	4	0	4
Supervised projects	A15 A27 A31 B1 B2 B13 B15 B16 B19 B24 C1 C3 C6 C9	14	40	54
Student portfolio	A15 B2 B7 B15 B19 B23 C1 C4 C7 C8	4	0	4
Guest lecture / keynote speech	A29 A31 B1 B13 B16 B23 C1 C4 C7	8	0	8
Personalized attention		2	0	2

(\*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

Methodologies	
Methodologies	Description
Document analysis	UTILIZATION OF THE CORRESPONDING BIBLIOGRAPHY.
Laboratory practice	THEY WILL SERVE THESE PRACTICES TO DO CORRECTIONS DOS EXERCISES.
Problem solving	THEY WILL DO PUBLICLY IN TIME PRESENCIAIS WHERE ALL WILL BE ABLE TO TAKE PART GIVING HIS POINT OF VIEW OF THE SOLUTION.
Supervised projects	SPLIT DOS EXERCISES WILL BE PLANTEADOS AND RESOLVED IN SCHEDULE NO PRESENCIAL WITH THE CORRESPONDING DISCUSSION AND CORRECTION SAME DOS IN TIME PRESENCIAL.
Student portfolio	THEY WILL GO SAVING ALL THE WORKS OF THE STUDENT IN A CARPETA THAT HE EVEN SAYS IN THE BEGINNING OF THE COURSE. THEY WILL HAVE PERSONAL SESSIONS WITH THE STUDENTS IN TITORWENT SO THAT THEY DO AUTOCORRECCI3NS DOS WORKS.
Guest lecture / keynote speech	WEEKLY BEFORE THEY EXPOSE THE PRACTICAL EXERCISES, WILL DO AN ORAL EXHIBITION AND IN THE PIZARFROG DOS CONTENTS BY PART OF THE PROFESSOR THAT WILL TREAT OF ARE AFRAID GOES TO BOARD IN PRACTICE.

Personalized attention	
Methodologies	Description



Student portfolio	<p>THEY WILL GO SAVING ALL THE WORKS OF THE STUDENT IN A FOLDER, THAT THE SAME DESIGNED TO THE BEGINNING OF THE COURSE. THEY WILL HAVE SESSIONS WITH THE STUDENTS IN TITORWENT, SO THAT THEY DO AUTOCORRECCIONS OF THE WORKS.</p> <p>The "Alumnado with recognition of dedication part time and dispenses academican of exemption of assistance", will have to put in knowledge of the corresponding professor, said circumstance, to be able to concretise the development of this activity as it consider more suitable.</p>
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Assessment			
Methodologies	Competencies / Results	Description	Qualification
Document analysis	A27 B1 B2 B7 B13 B16 B23 C2 C3 C4 C5 C6	Use of the corresponding bibliography.	2
Student portfolio	A15 B2 B7 B15 B19 B23 C1 C4 C7 C8	All the student's works will be saved into a folder designed by themselves at the course start. Students can get personal attention in tutorial hours to do self-correction of their works.	2
Laboratory practice	A27 A31 B1 B2 B7 B16 B23 B24 C1 C3 C6 C7 C9	This practices will be to do corrections on the student works.	51
Guest lecture / keynote speech	A29 A31 B1 B13 B16 B23 C1 C4 C7	Weekly, the professor will explain the topics of the practical work to be developed by the students and after this, the students will expose the works developed along the week before.	2
Problem solving	A15 A29 A31 B1 B2 B7 B16 B24 C1 C3 C4 C7 C8	Problem solving will be done in the classroom with all students who must be take part to reach solutions from their own point of view.	13
Supervised projects	A15 A27 A31 B1 B2 B13 B15 B16 B19 B24 C1 C3 C6 C9	Part of the exercises can be solved out of the classroom timetable but discussed and corrected into the classroom timetable.	30

Assessment comments
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For the evaluation of the asignatura demands an assistance regulate so much to the classes expositivas as to the interactive, with a minimum of 80% of assistance in each one of them.

The teaching of the asignatura of Technical Projects I bases in a methodology of Learning Based in Projects (ABP), subjects to a system of continuous evaluation.

- 1.- The qualification of the students has a definite support in the practices and works tutelados of the same, with the percentages of assessment, distinct, that establish in the previous criteria of evaluation.
- 2.- The practices and works tutelados delivered, all and all they compulsory, have distinct character:  
To.- Entregables evaluables (Around the eight practices).  
B.- Selective (a practice).
- 3.- The last practice, composed of two parts, a proyectiva and another valorativa, having to surpass the two; and the final result does average with the others practise of the course.

To surpass the asignatura, by course will owe to fulfil the following condition:

- 1.-Have been delivered all the practices and individual works and each one/or of them/will have to have you been considered/or how apt/or.

This criterion also is applicable so much to the First how to the Second Opportunity:

The students that do not surpass the asignatura by course will have to deliver the corresponding works in the date fixed for the First Opportunity of evaluation (JANUARY) or, in his case, in the date fixed for the Second Opportunity of evaluation (JUNE-JULIO). In these deliveries will have to follow obligatoriamente the indications, fixed in the tutorías corresponding, of the responsible professor of the matter.

**IMPORTANT:** it will have the condition of NO PRESENTED the student that find in any of the following circumstances:

- Not fulfilling with the minimum of assistance demanded.
- Not delivering any of the works proposed.

It will not allow complete or modify the works out of the dates of distinguished delivery.



<b>Basic</b>	<ul style="list-style-type: none"> <li>- WUCIUS WONG (). FUNDAMENTOS DEL DISEÑO BIDIMENSIONAL Y TRIDIMENSIONAL.</li> <li>- BRUNO MUNARI (). DISEÑO Y COMUNICACIÓN VISUAL. CONTRIBUCIÓN A UNA METODOLOGÍA DIDÁCTICA..</li>   <li>- JONES CHRISTOPHER. (). MÉTODOS DE DISEÑO.</li> <li>- FRANCIS D.K. CHING (). ARQUITECTURA: FORMA, ESPACIO Y ORDEN..</li> <li>- FRANCIS D.K. CHING Y STEVEN P. JOROSZEK (). DIBUJO Y PROYECTO..</li> <li>- ERNST NEUFERT (). ARTE DE PROYECTAR EN ARQUITECTURA.</li> <li>- FRANCISCO DE GRACIA (). CONSTRUIR EN LO CONSTRUIDO: LA ARQUITECTURA COMO MODIFICACIÓN.</li> <li>- PÉREZ GUERRA (). DICTÁMENES Y ESTUDIOS DE DERECHO URBANO. EDITORIAL MONTE CORVO</li> <li>- GALLEGO ANABITARTE (). LEY DEL SUELO. EDITORIAL I.F.I.</li> <li>- GONZÁLEZ PÉREZ, J. (). COMENTARIOS A LA LEY DEL SUELO. EDITORIAL CIVITAS</li> <li>- FERNÁNDEZ ALBA (). IDEOLOGÍA Y ENSEÑANZA DE LA ARQUITECTURA EN ESPAÑA. EDITORIAL TUCAR</li> <li>- GONZÁLEZ VELAYOS, E. (). BREVE HISTORIA DE UNA LARGA PROFESIÓN. EDITORIAL C.G.C.C.O.O.A.</li> <li>- RUÍZ SERRA, R. (). RÉGIMEN DE FINCAS RUINOSAS.. EDITORIAL M.O.P.U.</li> <li>- RUDOLF PRENZEL (). DISEÑO Y TÉCNICA DE LA REPRESENTACIÓN EN ARQUITECTURA.. ED. GUSTAVO GILI</li> <li>- K.D. PORTMAN (). SIGNOS Y SÍMBOLOS DE LOS DISEÑOS DE LA CONSTRUCCIÓN.. ED. GUSTAVO GILI</li> <li>- HENRICH SCHMITT (). TRATADO DE LA CONSTRUCCIÓN.. ED. GUSTAVO GILI</li> </ul>
<b>Complementary</b>	

## Recommendations

### Subjects that it is recommended to have taken before

Materials I/670G01003  
 Descriptive Geometry/670G01004  
 Architectural Graphic Expression I/670G01008  
 Construction I/670G01009  
 Construction II/670G01011  
 Materials II/670G01012  
 Architectural Graphic Expression II/670G01013  
 Facilities I/670G01014  
 Geometry of Illustrations/670G01018  
 Topography/670G01020  
 Facilities II/670G01024

### Subjects that are recommended to be taken simultaneously

Construction III/670G01017  
 Materials III/670G01016  
 Facilities III/670G01035

### Subjects that continue the syllabus

Technical Projects II/670G01027  
 Final Dissertation/670G01036  
 Interior, Garden and Landscape Design/670G01042

### Other comments

NOTE: For the correct follow-up and aprovechamiento of the matter considers convenient the knowledge and handle of computer programs of design assisted (AutoCAD, ArchiCad, Revit, SketchUP, etc.), as well as of computer programs of character ofimático (processing of texts, leaves of calculation, management of PDFs, treatment of images, presentations, etc.).

It recommends attend to the interactive classes (Workshop of Technical Projects I) provistos of a portable computer with access to Internet.



(\*)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.