



## Teaching Guide

| Identifying Data    |  |        |   |         | 2016/17 |
|---------------------|--|--------|---|---------|---------|
| Subject (*)         | Proxectos Técnicos I   | Code   | 670G01023   |         |         |
| Study programme     | Grao en Arquitectura Técnica   |        |   |         |         |
| Descriptors         |  |        |   |         |         |
| Cycle               | Period   | Year   | Type  | Credits |         |
| Graduate            | 1st four-month period  | Third  | Obligatoria   | 6       |         |
| Language            | Spanish  |        |   |         |         |
| Teaching method     | Face-to-face   |        |   |         |         |
| Prerequisites       |  |        |   |         |         |
| Department          | Tecnoloxía e Ciencia da Representación Gráfica   |        |   |         |         |
| Coordinador         | Gonzalez Sarceda, Manuel   | E-mail | manuel.gsarceda@udc.es  |         |         |
| Lecturers           | Gonzalez Sarceda, Manuel<br>Losada Pérez, Carlos<br>Perez Doval, Luis  | E-mail | manuel.gsarceda@udc.es<br>c.losada@udc.es<br>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

| Code | Study programme competences  |
|------|--|
| 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   | Expresarse correctamente, tanto de forma oral coma escrita, nas linguas oficiais da comunidade autónoma.   |
| C2   | Dominar a expresión e a comprensión de forma oral e escrita dun idioma estranxeiro.  |
| C3   | Utilizar as ferramentas básicas das tecnoloxías da información e as comunicacións (TIC) necesarias para o exercicio da súa profesión e para a aprendizaxe ao longo da súa vida.  |
| C4   | Desenvolverse para o exercicio dunha cidadanía aberta, culta, crítica, comprometida, democrática e solidaria, capaz de analizar a realidade, diagnosticar problemas, formular e implantar solucións baseadas no coñecemento e orientadas ao ben común. |
| C5   | Entender a importancia da cultura emprendedora e coñecer os medios ao alcance das persoas emprendedoras.   |



|    |   |
|----|---|
| C6 | Valorar criticamente o coñecemento, a tecnoloxía e a información dispoñible para resolver os problemas cos que deben enfrontarse.             |
| C7 | Asumir como profesional e cidadán a importancia da aprendizaxe ao longo da vida.  |
| C8 | Valorar a importancia que ten a investigación, a innovación e o desenvolvemento tecnolóxico no avance socioeconómico e cultural da sociedade. |

| Learning outcomes   |                             |     |
|---|-----------------------------|-----|
| Learning outcomes   | Study programme competences |     |
| 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<br>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  |
| Value the importance that has the investigation, the innovation and the technological development in the socioeconomic and cultural advance of the society.   |                             | C8  |

| 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.<br>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   | Ordinary class hours | Student?s personal work hours | Total hours |
| Document analysis              | A27 B1 B2 B7 B13<br>B16 B23 C2 C3 C4<br>C5 C6        | 0                    | 30                            | 30          |
| Laboratory practice            | A27 A31 B1 B2 B7<br>B16 B23 B24 C1 C3<br>C6 C7       | 28                   | 20                            | 48          |
| Problem solving                | A15 A29 A31 B1 B2<br>B7 B16 B24 C1 C3<br>C4 C7 C8    | 4                    | 0                             | 4           |
| Supervised projects            | A15 A27 A31 B1 B2<br>B13 B15 B16 B19<br>B24 C1 C3 C6 | 14                   | 40                            | 54          |
| Student portfolio              | A15 B2 B7 B15 B19<br>B23 C1 C4 C7 C8                 | 4                    | 0                             | 4           |
| Guest lecture / keynote speech | A29 A31 B1 B13 B16<br>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> |
|-------------------|--|

| Assessment                        |  |  |               |
|-----------------------------------|--|--|---------------|
| Methodologies                     | Competencies   | Description  | Qualification |
| Document analysis                 | A27 B1 B2 B7 B13<br>B16 B23 C2 C3 C4<br>C5 C6        | Use of the corresponding bibliography.   | 2             |
| Student portfolio                 | A15 B2 B7 B15 B19<br>B23 C1 C4 C7 C8                 | All the student's works will be saved into a folder designed by themselves at the course start.<br>Students can get personal attention in tutorial hours to do self-correction of their works. | 2             |
| Laboratory practice               | A27 A31 B1 B2 B7<br>B16 B23 B24 C1 C3<br>C6 C7       | This practices will be to do corrections on the student works.   | 51            |
| Guest lecture /<br>keynote speech | A29 A31 B1 B13 B16<br>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<br>B7 B16 B24 C1 C3<br>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<br>B13 B15 B16 B19<br>B24 C1 C3 C6 | Part of the exercises can be solved out of the classroom timetable but discussed and corrected into the classroom timetable.   | 30            |

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|---------------------|
| Assessment comments |
|---------------------|



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

Materiais I/670G01003  
 Xeometría Descritiva/670G01004  
 Expresión Gráfica Arquitectónica I/670G01008  
 Construción I/670G01009  
 Construción II/670G01011  
 Materiais II/670G01012  
 Expresión Gráfica Arquitectónica II/670G01013  
 Instalacións I/670G01014  
 Xeometría da Representación/670G01018  
 Topografía/670G01020  
 Instalacións II/670G01024

### Subjects that are recommended to be taken simultaneously

Construción III/670G01017  
 Materiais III/670G01016  
 Instalacións III/670G01035

### Subjects that continue the syllabus

Proxectos Técnicos II/670G01027  
 Proxecto Fin de Grao/670G01036  
 Deseño de interiores. xardinaría e paisaxe/670G01042

### Other comments

NOTE: For the correct follow-up and aproveitamiento 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.