



## Teaching Guide

| Teaching Guide      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                                                           |           |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------------------------------|-----------|
| Identifying Data    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                                                           | 2024/25   |
| Subject (*)         | Industrial Design                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        | Code                                                      | 630G02054 |
| Study programme     | Grao en Estudos de Arquitectura                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                                                           |           |
| Descriptors         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                                                           |           |
| Cycle               | Period                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Year   | Type                                                      | Credits   |
| Graduate            | 2nd four-month period                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Fifth  | Optional                                                  | 6         |
| Language            | SpanishGalicianEnglish                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                                                           |           |
| Teaching method     | Face-to-face                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        |                                                           |           |
| Prerequisites       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                                                           |           |
| Department          | Proxectos Arquitectónicos e UrbanismoProxectos Arquitectónicos, Urbanismo e Composición                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |                                                           |           |
| Coordinador         | Martinez Raído, Jose Luis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | E-mail | jose.luis.martinez.raido@udc.es                           |           |
| Lecturers           | Martinez Raído, Jose Luis<br>Vidal Pérez, Francisco José                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | E-mail | jose.luis.martinez.raido@udc.es<br>francisco.vidal@udc.es |           |
| Web                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                                                           |           |
| General description | The object of the course is to introduce the student to the traditional link between the architect and industrial design. The subject is close to the discipline of industrial design and architectural figures who have developed a relevant professional activity within this field. The theoretical contents of the subject support the practices of industrial design of objects. It deals with the history of furniture; the material in the design process (wood, glass, steel); solutions with assemblies, screws and gluing; ergonomics in design. |        |                                                           |           |

## Study programme competences / results

| Code | Study programme competences / results                                                                                                                                                                                                                                                             |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A1   | Ability to apply graphical procedures to the representation of spaces and objects (T)                                                                                                                                                                                                             |
| A2   | Ability to conceive and represent the visual attributes of objects and master proportion and drawing techniques, including digital ones (T)                                                                                                                                                       |
| A3   | Knowledge of spatial representation systems and projections adapted and applied to architecture                                                                                                                                                                                                   |
| A4   | Knowledge of the analysis and the theory of form and the laws of visual perception adapted and applied to architecture and urbanism                                                                                                                                                               |
| A17  | Ability to apply technical and construction standards and regulations                                                                                                                                                                                                                             |
| A26  | Adequate knowledge of the physical and chemical characteristics, production procedures, pathology and use of building materials                                                                                                                                                                   |
| A27  | Adequate knowledge of industrialized building systems                                                                                                                                                                                                                                             |
| A30  | Knowledge of the organization of professional offices                                                                                                                                                                                                                                             |
| A34  | Ability to design, implement and develop sketches and drafts, concept designs, developed designs and technical designs (T)                                                                                                                                                                        |
| A36  | Ability to design, implement and develop construction management (T)                                                                                                                                                                                                                              |
| A39  | Ability to remove architectural barriers (T)                                                                                                                                                                                                                                                      |
| A40  | Ability to practise architectural criticism                                                                                                                                                                                                                                                       |
| A48  | Adequate knowledge of general theories of form, composition and architectural types                                                                                                                                                                                                               |
| A49  | Adequate knowledge of the general history of architecture                                                                                                                                                                                                                                         |
| A50  | Adequate knowledge of the methods of studying the processes of symbolization, practical functions and ergonomics                                                                                                                                                                                  |
| A51  | Adequate knowledge of the methods of studying the social requirements, living conditions, habitability and basic housing programmes                                                                                                                                                               |
| A52  | Adequate knowledge of ecology, sustainability and the principles of conservation of energy and environmental resources.                                                                                                                                                                           |
| A53  | Adequate knowledge of the architectural, urban and landscape traditions of Western culture, as well as their technical, climatic, economic, social and ideological foundations.                                                                                                                   |
| A54  | Adequate knowledge of aesthetics and theory and history of fine arts and applied arts                                                                                                                                                                                                             |
| A55  | Adequate knowledge of the relationship between cultural patterns and social responsibilities of the architect                                                                                                                                                                                     |
| A61  | Knowledge of feasibility analysis and the surveillance and coordination of integrated projects                                                                                                                                                                                                    |
| A67  | Coñecemento avanzado de aspectos específicos da materia de Proxectos no contemplados expresamente na Orde EDU/2075/2010                                                                                                                                                                           |
| B1   | Students have demonstrated knowledge and understanding in a field of study that is based on the general secondary education, and is usually at a level which, although it is supported by advanced textbooks, includes some aspects that imply knowledge of the forefront of their field of study |



|     |                                                                                                                                                                                                                              |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| B2  | Students can apply their knowledge to their work or vocation in a professional way and have competences that can be displayed by means of elaborating and sustaining arguments and solving problems in their field of study  |
| B3  | Students have the ability to gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues                          |
| B4  | Students can communicate information, ideas, problems and solutions to both specialist and non-specialist public                                                                                                             |
| B5  | Students have developed those learning skills necessary to undertake further studies with a high level of autonomy                                                                                                           |
| B6  | Knowing the history and theories of architecture and the arts, technologies and human sciences related to architecture                                                                                                       |
| B7  | Knowing the role of the fine arts as a factor that influences the quality of architectural design                                                                                                                            |
| B11 | "Knowing the industries, organizations, regulations and procedures involved in translating design concepts into buildings and integrating plans into planning "                                                              |
| B12 | Understanding the relationship between people and buildings and between these and their environment, and the need to relate buildings and the spaces between them according to the needs and human scale                     |
| C1  | Adequate oral and written expression in the official languages.                                                                                                                                                              |
| C3  | Using ICT in working contexts and lifelong learning.                                                                                                                                                                         |
| C4  | Exercising an open, educated, critical, committed, democratic and caring citizenship, being able to analyse facts, diagnose problems, formulate and implement solutions based on knowledge and solutions for the common good |
| C5  | Understanding the importance of entrepreneurial culture and the useful means for enterprising people.                                                                                                                        |
| C6  | Critically evaluate the knowledge, technology and information available to solve the problems they must face                                                                                                                 |
| C7  | Assuming as professionals and citizens the importance of learning throughout life                                                                                                                                            |
| C8  | Valuing the importance of research, innovation and technological development for the socioeconomic and cultural progress of society.                                                                                         |

| Learning outcomes                       |                                       |    |    |
|-----------------------------------------|---------------------------------------|----|----|
| Learning outcomes                       | Study programme competences / results |    |    |
| Knowing the history of design           | A53                                   | B1 | C3 |
|                                         | A54                                   | B2 | C4 |
|                                         | A55                                   | B3 | C5 |
|                                         | A67                                   | B4 | C6 |
|                                         |                                       | B5 | C7 |
|                                         |                                       | B6 | C8 |
|                                         |                                       | B7 |    |
| Knowing the history of furniture design | A53                                   | B1 | C3 |
|                                         | A54                                   | B2 | C4 |
|                                         | A55                                   | B3 | C5 |
|                                         | A67                                   | B4 | C6 |
|                                         |                                       | B5 | C7 |
|                                         |                                       | B6 | C8 |
|                                         |                                       | B7 |    |
| Knowing the scale of objects            | A1                                    | B1 | C6 |
|                                         | A2                                    | B2 | C8 |
|                                         | A3                                    | B3 |    |
|                                         | A48                                   | B5 |    |
|                                         | A50                                   |    |    |
|                                         | A67                                   |    |    |

|                                                                                 |                                                                              |                             |                                        |
|---------------------------------------------------------------------------------|------------------------------------------------------------------------------|-----------------------------|----------------------------------------|
| Consider scale of objects in design                                             | A1<br>A2<br>A4<br>A26<br>A50<br>A67                                          | B2<br>B3                    |                                        |
| Knowing physical characteristics of materials used in the production of objects | A26<br>A27                                                                   |                             |                                        |
| Knowing and applying characteristics of screws, joints and assemblies           | A17<br>A26<br>A27<br>A67                                                     | B1<br>B2<br>B3<br>B4<br>B5  | C6<br>C8                               |
| Being able to modify the design of industrially produced objects                | A1<br>A2<br>A3<br>A4<br>A26<br>A27<br>A40<br>A48<br>A50<br>A54<br>A55<br>A67 | B1<br>B2<br>B3<br>B4<br>B12 | C1<br>C3<br>C4<br>C5<br>C6<br>C7<br>C8 |
| Being able to design industrially producible objects                            | A1<br>A2<br>A3<br>A4<br>A17<br>A26<br>A27<br>A34<br>A48<br>A67               | B2<br>B3<br>B4<br>B5<br>B12 | C1<br>C3<br>C4<br>C5<br>C6<br>C7<br>C8 |
| Applying ergonomics to object design                                            | A39<br>A50<br>A51<br>A67                                                     | B2<br>B3<br>B4<br>B5<br>B12 | C3<br>C6<br>C7<br>C8                   |
| Knowing manufacturing processes                                                 | A26<br>A27<br>A30<br>A34<br>A36<br>A52<br>A61<br>A67                         | B2<br>B3<br>B4<br>B5        | C4<br>C5<br>C6<br>C7<br>C8             |



|                                                                |     |     |    |
|----------------------------------------------------------------|-----|-----|----|
| Adaptation of design to manufacturing processes                | A26 | B2  | C4 |
|                                                                | A27 | B3  | C5 |
|                                                                | A30 | B4  | C6 |
|                                                                | A55 | B5  | C7 |
|                                                                | A61 |     | C8 |
|                                                                |     |     |    |
| Cooperate in industrial design teams                           | A30 | B2  | C1 |
|                                                                | A61 | B3  | C3 |
|                                                                | A67 | B4  | C4 |
|                                                                |     | B11 | C5 |
|                                                                |     | B12 | C6 |
|                                                                |     |     | C8 |
| Understanding the social function of design and its usefulness | A48 | B2  | C4 |
|                                                                | A50 | B3  | C8 |
|                                                                | A51 | B4  |    |
|                                                                | A53 | B5  |    |
|                                                                | A54 | B6  |    |
|                                                                | A55 | B7  |    |
| Making a review on industrial design products                  | A40 | B2  | C3 |
|                                                                | A48 | B3  | C4 |
|                                                                | A49 | B4  | C5 |
|                                                                | A54 | B5  | C6 |
|                                                                | A55 |     | C7 |
|                                                                |     |     | C8 |
| Relating the industrial design with the architectural space    | A26 | B2  | C4 |
|                                                                | A27 | B3  | C6 |
|                                                                | A34 | B4  | C7 |
|                                                                | A39 | B5  | C8 |
|                                                                | A48 | B12 |    |
|                                                                | A49 |     |    |
|                                                                | A50 |     |    |
|                                                                | A51 |     |    |
|                                                                | A54 |     |    |
|                                                                |     |     |    |
| Become familiar with the design and its qualities intuitively  | A34 | B2  | C4 |
|                                                                | A36 | B3  | C8 |
|                                                                | A40 | B7  |    |
|                                                                | A48 |     |    |
|                                                                | A50 |     |    |
|                                                                | A53 |     |    |
|                                                                | A54 |     |    |
|                                                                |     |     |    |

| Contents                                               |                        |
|--------------------------------------------------------|------------------------|
| Topic                                                  | Sub-topic              |
| History of furniture.                                  | varieties of solutions |
| History of industrial design.                          |                        |
| The material in the design process.                    |                        |
| Wood, glass, steel.                                    |                        |
| Solutions with assemblies, screw and glued assemblies. |                        |
| The space of architecture and small objects.           |                        |
| Ergonomics in the use of design.                       |                        |



| Planning                                                                                                                        |                                                                                               |                                      |                               |             |
|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------|-------------------------------|-------------|
| Methodologies / tests                                                                                                           | Competencies / Results                                                                        | Teaching hours (in-person & virtual) | Student?s personal work hours | Total hours |
| Directed discussion                                                                                                             | A1 A2 A3 A4 A34 A36<br>A39 A40 A48 A53<br>A54 A55 A61 A67 B1<br>B2 B3 B5 B6 B7 C1<br>C3 C4 C7 | 50                                   | 0                             | 50          |
| Guest lecture / keynote speech                                                                                                  | A17 A26 A27 A30<br>A49 A50 A51 A52<br>A53 A54 A55 B6 B7<br>B12 C5 C6 C7 C8                    | 25                                   | 50                            | 75          |
| Mixed objective/subjective test                                                                                                 | A53 A54 A55 B2 B3<br>B4 B5 B6 B7 B12 C3                                                       | 2                                    | 6                             | 8           |
| Events academic / information                                                                                                   | A1 A2 A3 A4 A34 A40<br>A48 A54 A55 B2 B3<br>B4 B7 C1 C3 C8                                    | 2                                    | 4                             | 6           |
| Field trip                                                                                                                      | A27 A30 B3 B4 B11<br>C5 C6 C7 C8                                                              | 6                                    | 0                             | 6           |
| Personalized attention                                                                                                          |                                                                                               | 5                                    | 0                             | 5           |
| (*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students. |                                                                                               |                                      |                               |             |

| Methodologies                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Methodologies                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Directed discussion             | Coursework correction.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Guest lecture / keynote speech  | Lecture / exposure about the different topics of the course program with the support of image projection.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Mixed objective/subjective test | Theory and practice                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Events academic / information   | Elaboration of synthesis material about the work done in the subject for taking part on the event exhibition event organized by the Department of Architectural Design, Urbanism and Composition: "Architectures in Progress. DPAUC" (panels, models, drawings, videos, texts, etc.).<br><br>Attendance to informative events (congresses, lectures, symposia, conferences, etc.), organized by the ETSAC, the DPAUC, etc., indicated by the teachers of the subject as part of the teaching content of the course, with the aim of providing students with current knowledge and experiences, relating to a particular study field of the subject. |
| Field trip                      | Visits to wood and metal carpentry companies, etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Personalized attention                                                                                                                  |                    |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| Methodologies                                                                                                                           | Description        |
| Directed discussion<br>Guest lecture / keynote speech<br>Field trip<br>Mixed objective/subjective test<br>Events academic / information | Face-to-face work. |



| Assessment                      |                                                                                   |                                                                                                                                                                                                                                                                                |               |
|---------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Methodologies                   | Competencies / Results                                                            | Description                                                                                                                                                                                                                                                                    | Qualification |
| Directed discussion             | A1 A2 A3 A4 A34 A36 A39 A40 A48 A53 A54 A55 A61 A67 B1 B2 B3 B5 B6 B7 C1 C3 C4 C7 | Progress and evolution of the proposals are scored as well as the occupation that is being acquired.                                                                                                                                                                           | 40            |
| Mixed objective/subjective test | A53 A54 A55 B2 B3 B4 B5 B6 B7 B12 C3                                              | Personalized learning is analyzed, evaluating the final work presented and the face-to-face test, making up a total of 60% of the grade in the score. The final work will represent 40% and the face-to-face test will represent 20%, adding between the two the total of 60%. | 60            |
| Others                          |                                                                                   |                                                                                                                                                                                                                                                                                |               |

| Assessment comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The final mark is set when evaluating the final work. At the end of the course the student has a certain capacity that must be satisfactory. The evaluation criteria for both, the first and the second opportunity, includes:</p> <ul style="list-style-type: none"> <li>- 40% of the grade marks the progress and evolution of the proposals, as well as the skill that is acquired through participation in the guided discussion;</li> <li>- 60% of the grade depends on the mixed test, where 40% assesses the final work of the course and 20% the exam at classroom.</li> </ul> <p>Whether attending the first or the second opportunity, for the qualification corresponding to the participation and evolution in the directed discussion (reviews in class), it is necessary that the student attends and participates regularly in the classes, being considered as such a minimum of 80% attendance.</p> |

| Sources of information |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Basic                  | <p>2100 metal tubular chairs : a typology by Mácel, Otakar.Rotterdam : Van Hezik-Fonds 90, [2006]Ideología y utopía del diseño Contribución a la teoría del diseño industrial Selle, Gert.Barcelona : Gustavo Gili, 1975El diseño industrial y su estética Dorfles, Gillo.Barcelona : Labor, 19776. Aulas/talleresSidi (1984-1988) Sidi, cinco años de diseño Ambrós i Monsonis, Jordi.Barcelona : Aram, D.L. 1989Historia del diseño industrial Torrent, Rosalía.Madrid : Cátedra, 2005Objects of Design from The Museum of Modern Art Antonelli, Paola.New York : The Museum of Modern Art, [2003]Charles Rennie Mackintosh the complete furniture. Furniture drawings &amp; interior designs Billcliffe, Roger.Guildford : Lutterworth Press, 1979The furniture of Charles and Ray Eames Weil am Rhein : Vitra , [2007]Scandinavian design Watabe, Chiharu.Tokyo : Petit Grand Publishing, [2003-2004]Breve historia del mueble Lucie-Smith, Edward.Barcelona : Destino, 1998Historia del mueble Feduchi, Luis.Barcelona : Blume, [1975]Manual de sistemas de unión y ensamble de materiales Caridad Obregón, Francisco Antonio.México : Trillas, 1986</p> |
| 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                                                                                     |
| A certain fondness for the design of furniture and objects related to architecture is recommended. |



(\*)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.