



## Teaching Guide

Identifying Data					2021/22
<b>Subject (*)</b>	Analysis of Architectural Forms		<b>Code</b>	630G02007	
<b>Study programme</b>	Grao en Estudos de Arquitectura				
Descriptors					
Cycle	Period	Year	Type	Credits	
Graduate	2nd four-month period	First	Basic training	6	
<b>Language</b>	SpanishEnglish				
<b>Teaching method</b>	Face-to-face				
<b>Prerequisites</b>					
<b>Department</b>	Expresión Gráfica Arquitectónica				
<b>Coordinador</b>	Fraga Lopez, Fernando		<b>E-mail</b>	fernando.fraga@udc.es	
<b>Lecturers</b>	Caridad Yañez, Eduardo Fernandez-Gago Longueira, Paula Fraga Lopez, Fernando Fraga Lopez, Francisco Javier Mantiñan Campos, Carlos		<b>E-mail</b>	eduardo.caridad@udc.es paula.fernandez-gago@udc.es fernando.fraga@udc.es javier.fraga@udc.es carlos.mantinan@udc.es	
<b>Web</b>	campusvirtual.udc.gal/login/index.php				
<b>General description</b>	<p>The objective of this course is for the student to acquire sufficient graphic ability to face the architectural project through Freehand Drawing. This capacity will be focused on three aspects that are considered fundamental and located at a time prior to the project itself:</p> <ul style="list-style-type: none"><li>? Acquisition of knowledge based on drawing reality,</li><li>? Enhancement of ideation and development of ideas (creativity)</li><li>? Communication of ideas. All this through the appropriate graphic maturation of the student's freehand drawing.</li></ul>				



<b>Contingency plan</b>	<p>By virtue of the adaptation measures provided for in the Instructions document of July 1, 2021 of the General Secretariat of Universities, two possible application scenarios of this teaching guide are foreseen:</p> <p><b>ADAPTED NORMALITY SCENARIO:</b> Situation according to the degree of presence estimated as normal in the time before the pandemic.</p> <p><b>SINGLE ALTERNATIVE SCENARIO:</b> The one foreseen for temporary situations limited by local restrictions caused by outbreaks of epidemic diseases or closures in the locality where the educational center is located. It is ruled out to contemplate a confinement scenario in the program of the subject. Likewise, according to the recommendations of the aforementioned document, it is anticipated:</p> <p>Progressive adaptation to new circumstances, especially in the first four-month period.</p> <p>The recommended capacity is set at 50% in spaces with fixed seats, always leaving an empty space in between. In the case of non-fixed furniture, a minimum distance of 1.2 m between the different positions will be respected. In very large groups, a maximum number of attendees per classroom will be established, depending on the spatial characteristics, ventilation and technical possibilities. Mirror classrooms or simultaneous telematic teaching will be used, avoiding very high concentrations of students.</p> <p>With all this and in case of entering the single alternative scenario, the following adaptations of this teaching guide will be made:</p> <ol style="list-style-type: none"> <li>1. <b>MODIFICATIONS IN THE CONTENTS</b> No changes will be made in the contents</li> <li>2. <b>METHODOLOGIES</b> While the adapted normality scenario lasts, the methodologies planned for class practices and exams are adjusted to face-to-face and telematic teaching: The lectures will be held in class, if necessary with mirror classrooms through TEAMS and with the support of the Virtual Campus / The works and face-to-face workshop drawings will be done in class or through TEAMS; Non-face-to-face works and drawings will be done through TEAMS / Objective tests will be done in class or through TEAMS.</li> <li>3. <b>MECHANISMS OF PERSONALIZED ATTENTION TO STUDENTS</b> <ol style="list-style-type: none"> <li>a) Email. It will be used to request tutorials or virtual meetings to monitor the work and exercises proposed.</li> <li>b) Virtual Campus. It will be used according to the student's need to have the materials provided, for the delivery of work or for the use of thematic forums.</li> <li>c) Teams. It will be used in a way that allows a standardized and adjusted monitoring of the learning needs of students to develop the work of the subject. This dynamic will be adjusted to the temporal development of the subject in face-to-face mode with the weekly sessions necessary to be able to develop all the theoretical and practical classes, as well as to carry out tutorials.</li> </ol> </li> <li>4. <b>CHANGES IN THE EVALUATION</b> The indicated in the teaching guide is maintained. Evaluation observations:             <ol style="list-style-type: none"> <li>a) All those indicated in the teaching guide are expressly maintained</li> <li>b) If there are special cases, such as those students who for any reason do not have access to computer resources to be able to attend online classes and deliver their work, they will be studied individually.</li> </ol> </li> <li>5. <b>MODIFICATIONS OF THE BIBLIOGRAPHY OR WEBGRAPHY</b> No changes will be made as the students will already have all the essential work materials for the subject in a digitized manner in the Virtual Campus. If necessary, for the different works of the course, a specific bibliography will be provided in PDF format through the Virtual Campus.</li> </ol>
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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
A6	"Knowledge of graphic surveying techniques at all stages, from the drawing sketches to scientific restitution, adapted and applied to architecture and urbanism "
A63	Development, presentation and public review before a university jury of an original academic work individually elaborated and linked to any of the subjects previously studied
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
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.
C2	Mastering oral and written expression in a foreign language.
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		
Ability to apply graphic representation systems. Ability to handle the quantitative and selective aspects of the scale. Ability to establish the relationship between plane and depth. Ability to analyze complex shapes. Ability to represent forms using PERSPECTIVE systems. Ability to study PROPORTIONS. Ability to apply GRAPHIC RESOURCES using different techniques.	A1 A2 A4	B2 B3 B4 B5 B6 B7 B12	C1 C2 C3 C4 C5 C6 C7 C8
Ability to conceive and represent the figure, color, texture, luminosity and master the proportion of objects. Knowledge and understanding of drawing techniques, including computer techniques, all of which are essential for the correct approach to design skills, a prelude to the representation of the project. Detailed study of the stages or levels of graphic learning, from the initial perceptual stage to the final stage of creative representation.	A2	B2 B3 B4 B5 B6 B7 B12	C1 C2 C3 C4 C5 C6 C7 C8
Knowledge and understanding of pictorial systems and their relationship with the procedures of graphic ideation and visual expression of the different phases of architectural and urban design.	A3	B2 B3 B4 B5 B6 B7 B12	C1 C2 C3 C4 C5 C6 C7 C8



Knowledge and understanding of the laws of visual perception and of proportion, theories of form and image, aesthetic theories of color and the procedures for the phenomenological and analytical study of architectural and urban forms.	A4	B2 B3 B4 B5 B6 B7 B12	C1 C2 C3 C4 C5 C6 C7 C8
Knowledge, understanding and use of the techniques of measurement and graphical survey of buildings and of urban and natural environments in all their phases, from drawing notes to detailed representation.	A6	B2 B3 B4 B5 B6 B7 B12	C1 C2 C3 C4 C5 C6 C7 C8
Aptitude to apply the knowledge and capacities related to Pictorial Systems, Spatial Representation, Graphic Ideation, Analysis of Forms and Graphic Restitution in the elaboration, presentation and defense before a University Court of an original academic work carried out individually and related to any of the subjects completed.	A63	B2 B3 B4 B5 B6 B7 B12	C1 C2 C3 C4 C5 C6 C7 C8

Contents	
Topic	Sub-topic
ANALYSIS OF ARCHITECTURAL FORMS THROUGH FREEHAND DRAWING	Laws of visual perception and proportion. Theories of form and image. Analysis and description of architectural forms and spaces based on significant examples of current or historical architecture. The human figure within the context. Study procedure, analysis and representation of architectural and urban forms. Freehand sketches. Sketches and drawing from observation. Use of different drawing techniques and formats. Color and value in the graphic sketch.
SKETCHING AND GRAPHIC SURVEY	Sketching and graphic survey.
CREATIVE REPRESENTATION AND GRAPHIC IDEATION	Creative representation as the end of graphic learning. Exhibition of the idea on different formats and supports Presentation Drawing.

Planning				
Methodologies / tests	Competencies / Results	Teaching hours (in-person & virtual)	Student?s personal work hours	Total hours
Guest lecture / keynote speech	A1 A2 A3 A4 A6 A63 B2 B3 B4 B5 B6 B7 B12 C1 C2 C3 C4 C5 C6 C7 C8	15	0	15



Supervised projects	A1 A2 A3 A4 A6 A63 B2 B3 B4 B5 B6 B7 B12 C1 C2 C3 C4 C5 C6 C7 C8	14	45	59
Workshop	A1 A2 A3 A4 A6 A63 B2 B3 B4 B5 B6 B7 B12 C1 C2 C3 C4 C5 C6 C7 C8	30	41	71
Objective test	A1 A2 A3 A4 A6 A63 B2 B3 B4 B5 B6 B7 B12 C1 C2 C3 C4 C5 C6 C7 C8	4	0	4
Personalized attention		1	0	1

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

Methodologies	
Methodologies	Description
Guest lecture / keynote speech	<p>Oral presentation, using audiovisual aids and other resources, intended to convey knowledge and encourage learning.</p> <p>Theoretical content will be divided according to the module's main subject areas and taught using a non-linear approach, based on the make-up of the group and the learning objectives proposed by the lecturer.</p>
Supervised projects	<p>In this methodology, one or more assignments will be proposed to the students that must be developed in the non-contact time (45 hours) allocated to it.</p> <p>This methodology refers primarily to learning "how to do things" and is focused on promoting the autonomous learning of students, under the tutelage of the professor</p> <p>The face-to-face time corresponding to this methodology (14 hours) will be dedicated to the explanation of the assignments, focusing on those theoretical aspects that are considered relevant, and a series of sessions for the collective and / or personalized monitoring of all the work proposed.</p>
Workshop	<p>This workshop includes both the work carried out in the practical face-to-face sessions (30 hours) as well as all the work proposed by the teaching staff and that the student must develop in the scheduled time (45 hours) for this methodology, always with the support and supervision of the professor.</p> <p>As in the case of supervised projects, this methodology refers primarily to learning "how to do things" and is focused on promoting the autonomous learning of students, under the tutelage of the professor.</p> <p>The total time foreseen must give rise to a volume of graphic work previously determined by the teaching staff, which the student must carry out.</p> <p>Within the workshop the following specific assignments are established that will have their independent evaluation with a specific weight within the final evaluation:</p> <ol style="list-style-type: none"> <li>1) Face-to-face drawings</li> <li>2) Non-contact drawings</li> <li>3) Final control drawings (Final exam)</li> </ol>
Objective test	<p>The objective tests are the set of compulsory exercises that students must perform both on the dates established by the official calendar and on those other dates indicated by the professors within the workshop.</p>



Personalized attention

Methodologies	Description
Guest lecture / keynote speech Supervised projects Workshop Objective test	<p>Individualised attention refers to one-to-one meetings between lecturers and students, or small group tutoring sessions, designed to offer guidance, support and motivation to students throughout the learning process, and an opportunity to discuss any questions or difficulties they may have in relation to specific module tasks and activities; they may be face-to-face or virtual meetings by Teams at the choice of each professor.</p> <p>For this section of the module, as in the other sections, students will be required to keep the lecturer informed as to the progress of their assignments, to ensure projects meet the necessary standards in each case.</p> <p>Given the emphasis on personalised teaching and learning in this module, students will be strictly required to avail of all opportunities for engagement offered by the syllabus. These monitoring sessions will be always carried out by appointment to guarantee both compliance and temporary provision and avoid unnecessary waiting for students.</p>

Assessment

Methodologies	Competencies / Results	Description	Qualification
Guest lecture / keynote speech	A1 A2 A3 A4 A6 A63 B2 B3 B4 B5 B6 B7 B12 C1 C2 C3 C4 C5 C6 C7 C8	<p>Class attendance is compulsory for this section of the subject.</p> <p>Students will be required to attend a minimum 80% of all classes; absences due to illness or other unforeseen circumstances should not exceed the remaining 20%.</p> <p>Students who fail to attend this 80% to all classes will be recorded as ?Absent (NP)?.</p>	0
Supervised projects	A1 A2 A3 A4 A6 A63 B2 B3 B4 B5 B6 B7 B12 C1 C2 C3 C4 C5 C6 C7 C8	<p>Class attendance is compulsory for this section of the subject.</p> <p>Students will be required to attend a minimum 80% of all classes; absences due to illness or other unforeseen circumstances should not exceed the remaining 20%.</p> <p>However 100% of all assigned work in this methodology should be done.</p> <p>By virtue of the adaptation measures stipulated in the Instructions of July 1, 2021 of the General Secretariat of Universities, a continuous evaluation system is used for the final qualification of the SUPERVISED PROJECTS.</p> <p>Supervised projects will account for 15% of the total final mark for the module.</p>	15
Workshop	A1 A2 A3 A4 A6 A63 B2 B3 B4 B5 B6 B7 B12 C1 C2 C3 C4 C5 C6 C7 C8	<p>Class attendance is compulsory for this section of the subject.</p> <p>Students will be required to attend a minimum 80% of all classes; absences due to illness or other unforeseen circumstances should not exceed the remaining 20%.</p> <p>However 100% of all assigned work in this methodology should be done.</p> <p>Total aggregated marks for workshop tasks in each category will account for the following percentages of the total final mark for the module: Class work (ordinary class hours) and weekly practical tasks (student's personal work hours) will account for the 35% of the total final mark for the module.</p> <p>By virtue of the adaptation measures stipulated in the Instructions of July 1, 2021 of the General Secretariat of Universities, a continuous evaluation system is used for the final qualification of the WORKSHOP.</p>	35



Objective test	A1 A2 A3 A4 A6 A63 B2 B3 B4 B5 B6 B7 B12 C1 C2 C3 C4 C5 C6 C7 C8	The OBJECTIVE TEST will represent 50% of the final grade for the course. The evaluation of the final exam will be carried out jointly and by consensus among all the teaching staff in charge of interactive teaching. A grade lower than 5 in this final exam will imply failure of the subject.	50
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## Assessment comments

### 1. Attendance:

? Attendance is mandatory. An attendance below 80% will mean that the student is considered absent. The 20% of absences is the percentage that covers the imponderables that we can consider as habitual.

? Students with recognition of part-time dedication will be exempt from this obligation. However, these students must comply with everything related to the delivery of assignments and tutorials.

### 2. Deliveries of assignments:

? Except for duly justified cause in accordance with current regulations, the failure to deliver an assignment on the date established for it, will imply the qualification of not presented.

? All the assignments and drawings made in the workshop will be collected on the dates indicated in the calendar of the subject that is proposed on the day of the presentation. All deliveries cannot be postponed and any change must be agreed between the students and the teaching staff.

? Students with recognition of part-time dedication or specific modalities of learning and support for diversity, must submit their work on time. If the previous issue is not possible, and with prior justification, a new date must be previously agreed with the teaching staff for the delivery or for the performance of the control or examination exercise, if applicable.

? To pass the course, in any of the two official opportunities of the course it is an essential requirement to have done all the proposed assignments with the minimum level of documentation and minimum content established level and the adequate supervision of the professor. Otherwise the student will be considered absent.

? The monitoring of the proposed assignments will only be considered effective if the professor has had proof of the performance of the students in the exercises carried out during the face-to-face time of the subject and if the performance is consistent with the work done during the non-face time..

### 3. Second chance of July:

? Students who have not passed the course on the first opportunity are obliged to present, in order to be evaluated on the second opportunity, all the works and / or drawings that they have not delivered on the first opportunity.

? In addition, the professors may demand the completion of new proposed assignments at the beginning of the second semester. The purpose of these works is that students can develop them, and can be effectively tutored, throughout the 2nd semester. These exercises will be delivered on the day of the second chance exam.

? Students who appear only on the second opportunity in July will be especially obliged to carry out all the work requested during the course and especially to comply with the supervision of the proposed works.

### 4. Tutorials:

? Given the importance of personalized attention for this subject, this will always be done by requesting an appointment by email, with the aim of optimizing your organization. This academic activity will be developed by the teaching staff, individually or in a small group, and may be face-to-face or virtual (by Teams) at the choice of each professor. This will also apply to students with recognition of part-time dedication.

### 5. Students of mobility programs

? Teaching to students of mobility programs will be adapted by adjusting the conditions of the work proposed for the rest of the students. The evaluation tests and exams will also be adapted for these students if necessary in the professor's opinion.

## Sources of information



<p><b>Basic</b></p>	<ul style="list-style-type: none"> <li>- Ching, Frank (1989). DRAWING A CREATIVE PROCESS. New York: Van Nostrand Reinhold</li> <li>- Ching, Francis (1999). DIBUJO Y PROYECTO. México. Ed. G.G. México</li> <li>- Ching, Frank (2010). DESIGN DRAWING. New Jersey: John Wiley &amp; Sons</li> <li>- Ching Frank (2012). INTERIOR DESIGN ILLUSTRATED. New Jersey: John Wiley &amp; Sons</li> <li>- Ching, Frank (2015). ARCHITECTURAL GRAPHICS. New Jersey: John Wiley &amp; Sons</li> <li>- Cooper, Douglas (1992). DRAWING AND PERCEIVING. Nueva York. Ed. Van Nostrand Reinhold</li> <li>- Cullen, Gordon (1964). TOWNSCAPE. London: The Architectural Press</li> <li>- D'Amelio, Joseph (1964). PERSPECTIVE DRAWING HANDBOOK. New York: León Amiel</li> <li>- De Grandis, Luigina (1985). TEORIA Y USO DEL COLOR. Madrid, Ed. Cátedra</li> <li>- Edwards, Brian W. (1994). UNDERSTANDING ARCHITECTURE THROUGH DRAWING. London: E &amp; FN Spon</li> <li>- Fraser, Iain (1994). ENVISIONING ARCHITECTURE: AN ANALYSIS OF DRAWING. New York: John Wiley &amp; Sons</li> <li>- Gosling, David (1996). GORDON CULLEN: VISIONS OF URBAN DESIGN. London: Academy editions</li> <li>- Hanks, Kurt (2006). RAPID VIZ: A NEW METHOD FOR VISUALIZATION OF IDEAS. Boston: Thomson Course Technology PTR</li> <li>- Jacoby, Helmut (1965). ARCHITECTURAL DRAWINGS. Stuttgart: Gerd Hatje</li> <li>- Jacoby, Helmut (compilado por:) (1974-1981). EL DIBUJO DE LOS ARQUITECTOS. Barcelona: Gustavo Gili</li> <li>- Knoll, W. y Hechinger, M. (1982). MAQUETAS DE ARQUITECTURA: TECNICAS Y CONSTRUCCIÓN.. México. Ed. G.G. México</li> <li>- Martín, Judy (1994). APRENDER A ABOCETAR. Barcelona, Ed. Blume</li> <li>- Mills, Criss B. (2000). DESIGNING WITH MODELS . Nueva York. Ed. John Wiley &amp; Sons</li> <li>- Moneo, R. y Cortés, J. (1982). COMENTARIO SOBRE 20 ARQUITECTOS DEL SIGLO XX. Barcelona. Ed. U. Politecnica Cataluña</li> <li>- Nikolaidis, Kimon (). THE NATURAL WAY TO DRAW. Boston, Ed. Houghton Mifflin</li> <li>- Porter y Goodman (1983-84-85). MANUAL DE TÉCNICAS GRÁFICAS PARA ARQUITECTOS. VOL 1,2,3 Y 4. Barcelona. Ed. G.G.</li> <li>- Redondo, E. y Delgado, M. (). DIBUJO A MANO ALZADA PARA ARQUITECTOS.. Barcelona. Ed. Parramón</li> <li>- Richards, James (2013). FREEHAND DRAWING &amp; DISCOVERY. Hoboken: John Wiley &amp; Sons</li> <li>- Uddin, M.S. (2000). DIBUJO AXONOMÉTRICO. México. Ed. McGraw Hill</li> <li>- Uddin, M.S. (2000). DIBUJO DE COMPOSICIÓN. México. Ed. McGraw Hill</li> <li>- Campanario, G. (2012). THE ART OF URBAN SKETCHING. Massachusetts, Ed. Quarry Books</li> </ul>
<p><b>Complementary</b></p>	

### Recommendations

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

Descriptive Geometry/630G02003  
 Drawing in Architecture/630G02002

#### Subjects that are recommended to be taken simultaneously

Architectural Design 1/630G02001  
 Architectural Form Geometry/630G02014

#### Subjects that continue the syllabus

Architectural Analysis 1/630G02012  
 Architectural Analysis 2/630G02017

#### Other comments

It would be recommended for the student who enrolls this subject, had taken previously &nbsp;subjects, of technical and freehand drawing in Secondary and High School Education.





(\*)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.