



Teaching Guide

Identifying Data					2021/22
Subject (*)	Drawing in Architecture	Code	630G02002		
Study programme	Grao en Estudos de Arquitectura				
Descriptors					
Cycle	Period	Year	Type	Credits	
Graduate	1st four-month period	First	Basic training	6	
Language	SpanishEnglish				
Teaching method	Face-to-face				
Prerequisites					
Department	Expresión Gráfica Arquitectónica				
Coordinador	Fraga Lopez, Francisco Javier	E-mail	javier.fraga@udc.es		
Lecturers	Caridad Yañez, Eduardo Fernandez-Gago Longueira, Paula Fraga Lopez, Fernando Fraga Lopez, Francisco Javier Mantiñan Campos, Carlos	E-mail	eduardo.caridad@udc.es paula.fernandez-gago@udc.es fernando.fraga@udc.es javier.fraga@udc.es carlos.mantinan@udc.es		
Web	https://campusvirtual.udc.gal/login/index.php				
General description	The aim of this course is that the student begins to acquire the necessary and sufficient graphic skills to face the design and project challenges that will arise from the first year in the degree. The correct evolution in the performance of this graphic ability is considered very important for the future development of your professional activity. These capacities / abilities refer, as established in the current Study Plan, to Freehand Drawing and the introduction to Architectural Drawing.				



Contingency plan	<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>ADAPTED NORMALITY SCENARIO: Situation according to the degree of presence estimated as normal in the time before the pandemic.</p> <p>UNIQUE ALTERNATIVE SCENARIO: 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.</p> <p>It is dismissed to contemplate a confinement scenario in the program of the subject.</p> <p>Likewise, according to the recommendations of the aforementioned document, it is anticipated:</p> <p>Progressive adaptation to new circumstances, especially in the first semester. 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 metre 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. With all this and in case of entering the unique alternative scenario, the following adaptations of this teaching guide will be made:</p> <p>1. CHANGES TO THE CONTENTS No changes will be made to the contents</p> <p>2. METHODOLOGIES While the adapted normality scenario lasts, the methodologies provided 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 assignments and classroom drawings will be carried out in class or through TEAMS and the Virtual Campus; Non-face-to-face assignments and drawings will be done through TEAMS and the Virtual Campus / Objective tests will be done in class or through TEAMS and / or the Virtual Campus.</p> <p>3. MECHANISMS OF PERSONALIZED ATTENTION TO STUDENTS a) Email. It will be used to request tutorials or virtual meetings to monitor the work and exercises proposed. 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. 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.</p> <p>4. CHANGES IN THE EVALUATION What is indicated in the teaching guide is maintained. Evaluation observations: a) All those indicated in the teaching guide are expressly maintained b) If there are special cases, such as those students who for any reason do not have access to computer resources to attend classes on-line and deliver the work, will be studied individually.</p> <p>5. MODIFICATIONS TO THE BIBLIOGRAPHY OR WEBGRAPHY No changes will be made as the students will already have all the essential work materials for the subject digitized at the Virtual Campus.</p>
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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
A5	"Knowledge of the metric and projective geometry 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
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
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	B1 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 architectural project. Detailed study of the stages or levels of graphic learning, from the initial perceptual stage to the final stage of creative representation.	A2	B1 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	B1 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	B1 B4 B5 B6 B7 B12	C1 C2 C3 C4 C5 C6 C7 C8
Knowledge and understanding of metric and projective geometry as foundations of architectural layout, design and composition.	A5	B1 B4 B5 B6 B7 B12	C1 C2 C3 C4 C5 C6 C7 C8
Aptitude to apply the knowledge and capacities related to the Pictorial Systems, Spatial Representation, Graphic Ideation and Analysis of Forms in the development, presentation and defense before a University Court of an original academic work carried out individually and related to any of the subjects studied.	A63	B1 B4 B5 B6 B7 B12	C1 C2 C3 C4 C5 C6 C7 C8

Contents	
Topic	Sub-topic
FREEHAND DRAWING	<p>Graphic learning methodologies applied to architectural representation.</p> <p>Expressive representation as the first phase of graphic learning.</p> <p>Sensitive drawing and rigorous drawing.</p> <p>Linear perspective applied to freehand drawing.</p> <p>Expressive volumetric representations: axonometries, perspective ...</p>
INTRODUCTION TO ARCHITECTURAL DRAWING	<p>Architectural representation.</p> <p>Scale / proportion.</p> <p>Graphic conventions.</p> <p>Composition and hand lettering.</p>

Planning				
Methodologies / tests	Competencies / Results	Teaching hours (in-person & virtual)	Student?s personal work hours	Total hours



Introductory activities	A1 A2 A3 A4 A5 A63 B1 B4 B5 B6 B7 B12 C1 C2 C3 C4 C5 C6 C7 C8	2	0	2
Guest lecture / keynote speech	A1 A2 A3 A4 A5 A63 B1 B4 B5 B6 B7 B12 C1 C2 C3 C4 C5 C6 C7 C8	13	0	13
Workshop	A1 A2 A3 A4 A5 A63 B1 B4 B5 B6 B7 B12 C1 C2 C3 C4 C5 C6 C7 C8	40	90	130
Objective test	A1 A2 A3 A4 A5 A63 B1 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
Introductory activities	These activities are intended to guide the student in the contents, the methodologies, the learning results of this subject and how he/she will be evaluated for its improvement.
Guest lecture / keynote speech	Although according to the Annual Teaching Plan, there is an hour of independent theoretical session assigned in this subject (due to an administrative and homogenizing issue of the UDC during the implementation of the plans adapted to Bologna), the theoretical contents have always been included within the practice as they prove, multiple evidences and communications in teaching innovation conferences. The contents of the subject will be exposed in a non-linear way, in the sequence that the professors deem most appropriate to obtain the expected results and depending on the heterogeneity of the group. In general, the sessions will be theoretical-practical and will be carried out through oral presentations, complemented with the use of audiovisual media and other resources whose purpose is to transmit knowledge and facilitate learning.
Workshop	The workshop is the main nucleus of the teaching for this subject. This methodology refers primarily to learning "how to do things" and is focused on promoting the autonomous learning of students, under the tutelage of professors. This workshop includes both the face-to-face practical classes and the keynote speech sessions (see their corresponding section) as well as all the work proposed by the professors and that the student must develop in the non-contact time provided for this methodology. The total time foreseen for the subject will give rise to a volume of graphic work, which will be previously determined by the teaching staff and which will be mandatory. In general, all the workshop sessions will be theoretical-practical. The workshop refers to the two parts of the subject specified in the Study Plan: the one referring to freehand drawing and the one referring to architectural drawing.
Objective test	The objective tests are the set of compulsory exercises that the student must perform both on the dates established by the official calendar and on those other dates indicated by the teaching staff within the workshop.

Personalized attention	
Methodologies	Description



Objective test Introductory activities Guest lecture / keynote speech Workshop	<p>The tutorials are intended to meet the needs and queries of the students related to the work to be done in the subject, providing guidance, support and motivation in the learning process.</p> <p>In this subject, it is understood as essential to consult with the teacher the progress that is being made, progressively, so that the necessary guidelines can be offered to ensure the quality of the work according to the criteria that will be indicated in each case.</p> <p>Given the importance of personalized attention for this subject, this will always be carried out by appointment to guarantee both compliance and temporary provision and avoid unnecessary waiting for students.</p> <p>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.</p>
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Assessment			
Methodologies	Competencies / Results	Description	Qualification
Objective test	A1 A2 A3 A4 A5 A63 B1 B4 B5 B6 B7 B12 C1 C2 C3 C4 C5 C6 C7 C8	A final OBJECTIVE TEST will be carried out in which a minimum grade of 5 is required in each of the two parts of the subject.	40
Guest lecture / keynote speech	A1 A2 A3 A4 A5 A63 B1 B4 B5 B6 B7 B12 C1 C2 C3 C4 C5 C6 C7 C8	As it was already explained, the theory of this subject is focused on its practice. That is why, although this item appears in the evaluation section, it is not evaluated independently and, therefore, does not count in the evaluation.	0
Workshop	A1 A2 A3 A4 A5 A63 B1 B4 B5 B6 B7 B12 C1 C2 C3 C4 C5 C6 C7 C8	<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 assessment of the WORKSHOP.</p> <p>The weight of each assignment to be carried out for each of the two parts of the subject, will be set at the beginning of the semester by the teaching staff.</p> <p>To pass the workshop it is necessary to get a pass in each of its two parts.</p> <p>The workshop grade will be obtained by applying the criteria set out in the presentation of the semester by the professors of each group, assessing in a weighted way the final graphic level reached by the students in each of the two parts</p>	60

Assessment comments



1. Attendance:

? Attendance is mandatory. An attendance below 80% will mean that the student is considered an 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 a duly justified cause in accordance with current regulations, the failure to deliver a work on the date established for it, will imply the qualification of absent.

? All the works 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 foregoing is impossible, and with prior justification, you must previously agree with the teaching staff a new date 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 carried out all the proposed work with the minimum level of documentation and minimum content established level and the adequate supervision of the teacher. Otherwise the student will be considered absent (no-show).

? 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 said 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 assignments 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 specially to comply with the supervision of the proposed works.

4. Personalized attention:

? 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. According to the professor's opinion, the evaluation tests and exams will also be adapted for these students, if necessary.



Basic	<ul style="list-style-type: none">- Campanario, Gabriel (2012). THE ART OF THE URBAN SKETCHING. Massacusetts. Ed. Quarry Books- Cooper, Douglas (1992). DRAWING AND PERCEIVING. Nueva York. Ed. John Wiley & Sons- Ching, Francis (1982). MANUAL DE DIBUJO ARQUITECTÓNICO. México. Ed. G.G. México- Ching, Francis (1990). DRAWING. A CREATIVE PROCESS. New York. Ed. Wiley and Son- Ching, Francis (1999). DIBUJO Y PROYECTO. México. Ed. G.G. México- Edwards, Betty (1979). APRENDER A DIBUJAR CON EL LADO DERECHO DEL CEREBRO. Nueva York. Ed. Urano- Jacoby, Helmut (1973). NUEVOS DIBUJOS DE ARQUITECTURA. Barcelona. Ed. G.G.- Moneo, R. y Cortés, J. (1982). COMENTARIO SOBRE 20 ARQUITECTOS DEL SIGLO XX. Barcelona. Ed. U. Politecnica Cataluña- Nicolaidis, Kimon (1990). The Natural Way to Draw: A Working Plan for Art Study. Harcourt Brace and Company- Porter y Goodman (1983-1984-1985). MANUAL DE TÉCNICAS GRÁFICAS PARA ARQUITECTOS. VOL 1,2,3 Y 4. Barcelona. Ed. G.G.- Redondo, E. y Delgado, M. (). DIBUJO A MANO ALZADA PARA ARQUITECTOS.. Barcelona. Ed. Parramón- Richards, James (2013). FREEHAND DRAWING AND DISCOVERY. New Jersey. Ed. Wiley and Son- Uddin, M.S. (2000). DIBUJO AXONOMÉTRICO. México. Ed. McGraw Hill- Uddin, M.S. (2000). DIBUJO DE COMPOSICIÓN. México. Ed. McGraw Hill- VanDyke, Scott (1984). DE LA LINEA AL DISEÑO. México. Ed. G.G. México- Dodson, Bert (2007). KEYS TO DRAWING WITH IMAGINATION. Cincinatti, Ohio. Ed. North Light Books- Dodson, Bert (1985). KEYS TO DRAWING . Cincinatti, Ohio. Ed. North Light Books <p>
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Complementary	

Recommendations

Subjects that it is recommended to have taken before

Subjects that are recommended to be taken simultaneously

Descriptive Geometry/630G02003

Introduction to Architecture/630G02005

Subjects that continue the syllabus

Analysis of Architectural Forms/630G02007

Other comments

It would be advisable for new students before joining this subject, that previously had completed courses in high school on graphic representation and freehand drawing.

(*)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.