



Teaching Guide				
Identifying Data				2015/16
Subject (*)	Architectural Drawing	Code	630G01002	
Study programme	Grao en Arquitectura			
Descriptors				
Cycle	Period	Year	Type	Credits
Graduate	1st four-month period	First	FB	6
Language	SpanishEnglish			
Teaching method	Face-to-face			
Prerequisites				
Department	Representación e Teoría Arquitectónica			
Coordinador	Fraga Lopez, Fernando	E-mail	fernando.fraga@udc.es	
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Web	departamentos.etsa.udc.es/webbryta/			
General description	This subject aims to introduce students to the graphic representation of architecture, from three different perspectives: the Architectural Drawing, Computer Aided Design and Freehand Drawing.			

Study programme competences	
Code	Study programme competences
A10	REPRESENTACIÓN ESPACIAL: aptitude ou capacidade para aplicar, tanto manual como informaticamente, os sistemas de representación gráfica, dominando os procedementos de proxección e corte, os aspectos cuantitativos e selectivos da escala e a relación entre o plano e a profundidade.
A13	IDEACIÓN GRÁFICA: aptitude ou capacidade para concibir e representar graficamente a figura, a cor, a textura e a luminosidade dos obxectos e dominar a proporción e as técnicas de debuxo, incluídas as informáticas.
A37	ANÁLISE DE FORMAS: comprensión ou coñecemento das leis da percepción visual e da proporción, as teorías da forma e da imaxe, as teorías estéticas da cor e os procedementos de estudo fenomenolóxico e analítico das formas arquitectónicas e urbanas.
A38	SISTEMAS DE REPRESENTACIÓN: comprensión ou coñecemento dos sistemas de representación espacial e a súa relación cos procedementos de ideación gráfica e de expresión visual das distintas fases do deseño arquitectónico e urbanístico.
B1	Learn how to learn
B3	Aplicar un pensamento crítico, lóxico e creativo.
B4	Traballar de forma autónoma con iniciativa.
B5	Traballar de forma colaborativa.
B6	Comportarse con ética e responsabilidade social como cidadán e como profesional.
B7	Comunicarse de maneira efectiva nun entorno de traballo.
B8	Visión espacial.
B9	Creatividade.
B10	Sensibilidade estética.
B11	Capacidade de análise e síntese.
B13	Imaxinación.
B14	Habilidade gráfica xeral.
B17	Cultura histórica.
B18	Razoamento crítico.
B19	Traballo nun equipo de carácter interdisciplinar.
C3	Utilizar as ferramentas básicas das tecnoloxías da información e as comunicacións (TIC) necesarias para o exercicio da súa profesión e para a aprendizaxe ao longo da súa vida.
C6	Valorar criticamente o coñecemento, a tecnoloxía e a información dispoñible para resolver os problemas cos que deben enfrontarse.



C7	Asumir como profesional e cidadán a importancia da aprendizaxe ao longo da vida.
C8	Valorar a importancia que ten a investigación, a innovación e o desenvolvemento tecnolóxico no avance socioeconómico e cultural da sociedade.

Learning outcomes			
Learning outcomes	Study programme competences		
<p>Ability to apply graphic representation systems.</p> <p>Ability to handle projection and section systems.</p> <p>Ability to handle the quantitative and selective aspects of the scale.</p> <p>Ability to establish the relationship between the plane and depth.</p>	A10	B1 B3 B4 B5 B7 B8 B9 B10 B11 B13 B14 B17 B18 B19	C3 C6 C7 C8
<p>Ability to conceive and represent the figure, colour, texture, and brightness and also dominate the objects proportion.</p> <p>Knowledge of the drawing techniques -including the computer ones-, all of them fundamental to the correct approach to the proyectual skill, a prelude to the project representation. Detailed study of the stages of graphic learning, from the initial perceptual stage to the final creative representation.</p>	A13	B1 B3 B4 B5 B7 B8 B9 B10 B13 B14 B17 B18	C3 C6 C7 C8
<p>Knowledge and understanding of the visual perception and proportion laws, form and image theories, the aesthetic theories of color and procedures of phenomenological and analytical study of the architectural and urban forms.</p>	A37	B1 B3 B4 B5 B7 B8 B9 B10 B11 B13 B14 B17 B18	C3 C6 C7 C8



Knowledge and understanding of the spatial representation systems and its relation with the graphic inventiveness and visual expression of the different phases of the urban and architectonic design.	A38	B1	C3
		B3	C6
		B4	C7
		B5	C8
		B6	
		B8	
		B9	
		B10	
		B11	
		B13	
		B14	
		B17	
		B18	

Contents	
Topic	Sub-topic
FREEHAND DRAWING	Graphic learning methodology applied to architectural perception. Expressive representation as a first step concerning graphic learning. Lineal perspective applied to freehand drawing.
INTRODUCTION TO ARCHITECTURAL DRAWING.	Graphic conventions. Scale and proportion. Plans, elevations and architectural sections. Expressive volume representations: axonometric, perspectives, models?

Planning				
Methodologies / tests	Competencies	Ordinary class hours	Student?s personal work hours	Total hours
Introductory activities	B1 B19	2	0	2
Guest lecture / keynote speech	A10 A13 A37 A38 B3 B4 B5 B6 B7 B8 B9 B10 B11 B13 B14 B17 B18	11	0	11
Workshop	A10 A13 A37 A38 B1 B3 B4 B5 B6 B7 B8 B9 B10 B11 B13 B14 B17 B18 C3 C6 C7 C8	26	54	80
Workshop	A10 A13 A37 A38 B1 B3 B5 B6 B7 B9 B14 B18 C3 C6 C7 C8	14	36	50
Objective test	A10 A13 A37 A38	6	0	6
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	Activities carried on before starting the learning-teaching process to get to know the abilities, interests and motivations the students should have to obtain the objectives. With this activities relevant information must be obtained to articulate the teaching and significant learningship the students previously should have.



Guest lecture / keynote speech	<p>Oral exposition complemented by audio-visual means and some other resources, to transmit knowledge and facilitate learningship.</p> <p>Subject theoretical contents (combined in three major general themes) will be exposed in a non-lineal way, as the teacher should estimate to obtain the preview results and concerning the group heterogeneity.</p>
Workshop	<p>SUBJECT WORKSHOP. In this workshop practical lessons (26 hours) ?non included in the first term workshop? and all the previously proposed work the student must develop in the stipulated time (54 hours) for this supervised methodology must be taken into account.</p> <p>The total stipulated time should guaranteed a graphic volume previously determined by the professor.</p>
Workshop	<p>FIRST TERM WORKSHOP. Shared among the different subjects of Architectural Drawing, Descriptive Geometry and Projects I.</p> <p>One or several in group essays will be proposed to be developed by the students outside the classroom.</p> <p>Lessons concerning this methodology in the classroom will be dedicated to the planning of the essays, to a series of theoretical lessons and to the supervised control of the proposed work.</p> <p>This methodology is meant to the learningship of ?how things must be done? focused on specific supervised essays to promote the students autonomous learningship.</p>
Objective test	<p>A practical examination used to the evaluation of the learningship whose distinctive aspect is the possibility to determine whether the acquired learningship is the expected to pass the examination.</p> <p>It is a measure instrument, rigorously elaborated which allows to evaluate the capacities, abilities and attitudes.</p> <p>It will consist of 2-4 drawings (6 hours), as the examination official timetable will establish.</p>

Personalized attention

Methodologies	Description
Workshop Workshop	<p>This academic activity will be developed by the professor, either individual or in small group and its finality is to have into consideration the student's needs and doubts in relation with the current essays, helping and motivating them during the learning process.</p> <p>For this subject and the already exposed methodologies it is fundamental to consult the professor about the weekly improvement to assure the quality of the essays according to the criteria which will be indicated in each case.</p> <p>Considering the importance the personalized care this subject has, this tutorial is compulsory for the students. Non assistance to the arranged tutorials (1h), the students will be given a ?non evaluated?.</p>

Assessment

Methodologies	Competencies	Description	Qualification
Guest lecture / keynote speech	A10 A13 A37 A38 B3 B4 B5 B6 B7 B8 B9 B10 B11 B13 B14 B17 B18	A minimum of 80% of assistance to lessons is compulsory for all students.	1
Workshop	A10 A13 A37 A38 B1 B3 B4 B5 B6 B7 B8 B9 B10 B11 B13 B14 B17 B18 C3 C6 C7 C8	<p>SUBJECT WORKSHOP: 30% of the qualifications.</p> <p>In this workshop, two different kind of essays will be developed:</p> <p>1) Drawings made in the classroom. This essays will be proposed by the professors and will be used to control both the evaluation of the students and reference of the essays made outside the classroom by the students.</p> <p>2) Drawings made by the students outside the classrooms will consist of free drawings though teachers will be able to propose a specific essay weekly. This essay will be the fundamental object of the tutorial.</p> <p>Both kind of essays will be evaluated continuously.</p>	30



Workshop	A10 A13 A37 A38 B1 B3 B5 B6 B7 B9 B14 B18 C3 C6 C7 C8	FIRST TERM WORKSHOP: 20% of the qualification. Tutored essays which evaluation will be made together with the three subjects that share the workshop. The final qualification will be the three subjects average qualification. This workshop is compulsory for all the students, even for those who had passed some of the three subjects previously.	19
Objective test	A10 A13 A37 A38	OBJECTIVE ASSESSMENT: 50% of the qualification. This methodology is meant to determine whether the student improvement has been sufficient and in concordance with what has been done in the workshops. It will be divided into two parts, three hours each, where the essays proposed by the professors will be developed. Students must obtain five points over ten in this methodology in order to pass this subject.	50

Assessment comments

To pass this subject, in any of the two evaluations within the course (the one belonging to the term or in the second opportunity in July) is an essential requirement to have done all the proposed essays in the different methodologies with the minimum established level and the correct professor tutorial. Otherwise the student will be consider non evaluated.

Students who only attend the second opportunity in July will be specially obligated to fulfill what has been exposed above.

A minimum of 80% of assistance is compulsory to pass the subject, otherwise students will be non evaluated.

Considering the importance the personalized care this subject has, this tutorial is compulsory for the students. Non assistance to the arranged tutorials (1h), the students will be given a ?non evaluated?.

Sources of information



Basic	<ul style="list-style-type: none"> - Janke, Rolf (1978). ARCHITECTURAL MODELS. Londres, Academy Editions - Moneo, R. y Cortés, J. (1982). COMENTARIO SOBRE 20 ARQUITECTOS DEL SIGLO XX. Barcelona. Ed. U. Politecnica Cataluña - Mills, Criss B. (2000). DESIGNING WITH MODELS. Nueva York. Ed. John Wiley & Sons - Redondo, E. y Delgado, M. (). DIBUJO A MANO ALZADA PARA ARQUITECTOS. Barcelona. Ed. Parramón - Uddin, M.S. (2000). DIBUJO AXONOMÉTRICO. México. Ed. McGraw Hill - Uddin, M.S. (2000). DIBUJO DE COMPOSICIÓN. México. Ed. McGraw Hill - Ching, Francis (1999). DIBUJO Y PROYECTO. México. Ed. G.G. México - Cooper, Douglas (1992). DRAWING AND PERCEIVING. Nueva York. Ed. John Wiley & Sons - Ching, Francis (1982). MANUAL DE DIBUJO ARQUITECTONICO. México. Ed. G.G. México - Porter y Goodman (1983-1984-1985). MANUAL DE TÉCNICAS GRÁFICAS PARA ARQUITECTOS. VOL 1,2,3 Y 4. Barcelona. Ed. G.G. - Knoll, W. y Hechinger, M. (1982). MAQUETAS DE ARQUITECTURA: TECNICAS Y CONSTRUCCIÓN. México. Ed. G.G. México - Navarro Lizandra, José Luis (2000). MAQUETAS, MODELOS Y MOLDES: MATERIALES Y TÉCNICAS PARA DAR FORMA A LAS IDEAS . Castelló de la Plana. Publicacions de la Universitat Jaume I. - Gonzalez, Lorenzo; Bertazzoni, L. (2000). MAQUETAS. LA REPRESENTACIÓN DEL ESPACIO EN EL PROYECTO ARQUITECTÓNICO. México. Ed. G.G. México
Complementary	

Recommendations

Subjects that it is recommended to have taken before

Subjects that are recommended to be taken simultaneously

Architectural Projects 1/630G01001

Descriptive Geometry/630G01003

Subjects that continue the syllabus

Architectural Projects 2/630G01006

Analysis on Architectural Form/630G01007

Other comments

It would be advisable for new students before joining this subject, that previously had completed courses in high school on technical 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.