UNIVERSIDADE DA CORUÑA

Teaching Guide				
Identifying Data				2021/22
Subject (*)	Architectural Graphic Expression II		Code	670G01117
Study programme	Grao en Arquitectura Técnica			
Descriptors				
Cycle	Period	Year	Type	Credits
Graduate	2nd four-month period	Second	Obligatory	6
Language	SpanishGalician			
Teaching method	Face-to-face			
Prerequisites				
Department	Expresión Gráfica Arquitectónica			
Coordinador	Perez Doval, Luis	E-mail	luis.pdoval@udc.es	
Lecturers	Perez Doval, Luis	E-mail	luis.pdoval@udc.es	
Web				
General description	When initiating the third cuatrimestre, the student already knows the rules of the architectural language, has surpassed, likewise, other asignaturas parallel, but fundamental for a progress in the understanding of the architectural fact and his graphic expression. It deepens in this reality called Architecture facilitating to the student, the rules and knowledges that allow him cover and solve each concrete architectural problem, from his foundations. For this is precise a desmenuzamiento of the constructive fact, the arrive to his last details, to his expression, to the knowledge of the distinct constructive solutions, to the Drawing of Constructive Details, to the Drawing anyway. Understand the drawing like a language, doing him see to the student the universality and precision that the Graphic Representation represents like element of communication, as well as the foundations of the graphic representation and his need.			
Contingency plan	1. Modifications to the contents 2. Methodologies *Teaching methodologies that are maintained *Teaching methodologies that are modified 3. Mechanisms for personalized attention to students 4. Modifications in the evaluation *Evaluation observations: 5. Modifications to the bibliography or webgraphy			

Study programme competences	
Code	Study programme competences
A2	Adquirir os coñecementos fundamentais sobre os sistemas e aplicacións informáticas específicos e xerais utilizados no ámbito da edificación.
A3	Coñecer os materiais, tecnoloxías, equipos, sistemas e procesos construtivos propios da edificación en xeral e en particular aqueles específicos de Galicia.
A6	Coñecer e aplicar os distintos sistemas de representación así como as técnicas e procedementos de expresión gráfica aplicados á edificación e ás construcións arquitectónicas.
A44	A1.1 Ability to read and create plans and drawings, carry out data collection, draft site plans and conduct as-built surveys of completed sections of the work.

A47	A2.1 Understanding of the different types and physical and mechanical properties of traditional and prefabricated building materials and systems.
A51	A2.5 Ability to address and resolve construction details.
A54	A2.8 Ability to participate in renovation work on buildings and restoration and conservation work on built heritage.
B2	Capacidade de organización e planificación.
B3	Capacidade para a procura, análise, selección, utilización e xestión da información.
B5	Capacidade para a resolución de problemas.
B6	Capacidade para a toma de decisións.
B7	Capacidade de traballo en equipo.
B14	Aprendizaxe autónomo.
B15	Adaptación a novas situacións.
B25	Hábito de estudo e método de traballo.
B27	Capacidade de comunicación a través da palabra e da imaxe.
B28	Capacidade de improvisación e adaptación para enfrontarse a novas situacións.
B31	B1 Students will demonstrate knowledge and understanding of subjects that build upon the foundation of a general secondary education using advanced textbooks and ideas and analyses from the cutting edge of their field.
B32	B2 Students will be able to use their knowledge professionally and will possess the skills required to formulate and defend arguments and solve problems within their area of study.
B33	B3 Students will have the ability to gather and interpret relevant data (especially within their field of study) in order to make decisions and reflect on social, scientific and ethical matters.
B34	B4 Students will be able to communicate information, ideas, problems and solutions to specialist and non-specialist audiences alike.
B35	B5 Students will develop the learning skills and autonomy they need to continue their studies at postgraduate level.
C1	Adequate oral and written expression in the official languages.
C3	Using ICT in working contexts and lifelong learning.
C4	Acting as a respectful citizen according to democratic cultures and human rights and with a gender perspective.
C6	Acquiring skills for healthy lifestyles, and healthy habits and routines.
C7	Developing the ability to work in interdisciplinary or transdisciplinary teams in order to offer proposals that can contribute to a sustainable environmental, economic, political and social development.
C8	Valuing the importance of research, innovation and technological development for the socioeconomic and cultural progress of society.
C9	Ability to manage times and resources: developing plans, prioritizing activities, identifying critical points, establishing goals and accomplishing them.

Learning outcomes			
Learning outcomes	Study programme competences		
Capacity for it searches, analysis, selection, utilization and management of the information.	A6 A44 A51		
Capacidade de organización e planificación.		B2	C9
Capacidade para a procura, análise, selección, utilización e xestión da información.		B3 B33	
Capacidade para a resolución de problemas.		B5 B32	
Capacidade para a toma de decisións.		B6	
Aprendizaxe autónomo.		B14 B31	
Adaptación a novas situacións.		B15	
Hábito de estudo e método de traballo.		B25 B35	

Capacidade de comunicación a través da palabra e da imaxe.		B27 B34	
Sensibilidade cara a temas relacionados coa protección, conservación e posta en valor do patrimonio cultural e arquitectónico.	A3 A47 A54	B7	
Capacidade de improvisación e adaptación para enfrontarse a novas situacións		B28	C8
Expresarse correctamente, tanto de forma oral coma escrita, nas linguas oficiais da comunidade autónoma.			C1
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.			C3
Desenvolverse para o exercicio dunha cidadanía aberta, culta, crítica, comprometida, democrática e solidaria, capaz de analizar a realidade, diagnosticar problemas, formular e implantar solucións baseadas no coñecemento e orientadas ao ben común.			C4
Valorar criticamente o coñecemento, a tecnoloxía e a información dispoñible para resolver os problemas cos que deben enfrontarse.			C6
Asumir como profesional e cidadán a importancia da aprendizaxe ao longo da vida.			C7
Adquirir os coñecementos fundamentais sobre os sistemas e aplicacións informáticas específicos e xerais utilizados no ámbito da edificación.	A2		

Contents	
Topic	**Sub-topic**
Concept of constructive section. Types. Criteria of election.	Learn to represent the parts seccionadas of the buildings with unseen parts of these with complex internal composition. - Differentiate the multiple types of sections that can employ in the definition of the building, executing them in the appropriate place. - Use the number of necessary sections to define the construction of a building.
Conditioning of the Terrain. You disassemble.	Demoliciones, explanaciones, disassemble, terraplenados, castings, resolve and pozos. Simbologia And representation grafica. Planes of group and of detail.
Saneamientos, drainages and avenamientos.	Elements of drainage, drain superficial and drain linear. Caskets, pozos, manifolds, works of drainage Types of drainage: -Drainage of walls of containment -Drainages of cimentaciones -Drainages of soleras, of trasdós, etc Planes of group and of details.
Cimentaciones.	Containments: -Walls of gravity -resistant Walls -Screens -Pilot -Superficial: run, losas, beams centradoras, zapatas.
Structures.	Of steel, Space, Forged, Supports, Beams, Zancas, Of factory, of Concrete, of Brick, of Stone. General planes and of detail.
Carpinterias.	Of steel, of Light Alloys, of Hormigon, wooden, of PVC, general Planes and of detail.
Defences, Rails, Closings.	Persianas: Types and Systems Rails, Fixations,etc Folding , extensible, enrollables, etc Guides, capialzados, drum, motorisation etc general Planes and of detail.

Factories.	Of block Of brick Of glass Prefabricated Etc general Planes and of detail.
Installations.	Audiovisual Climatización Electricity Fontaneria Gas Salubridad Rubbishes Depuración and poured Smokes and gases saneamiento Ventilation Of transport Simbologia, general planes and of details.
Partitions.	Mamparas: Steel, Light Alloys, Wood, etc Doors Septums: Brick, Prefabricated, general Planes and of detail.
Covers.	Azoteas Ladscaped Transitables No transitables Lucernarios Roofs of fibrocemento Galvanised light Alloys Synthetic Blackboard Of Knit Of General Flat Zinc and of detail.
Revestimientos.	And paramentos vertical and horizontals: Tiled, chapados, enfoscados,light, industrial, wooden, laminados, moquetas,of ceilings etc. General Planes and of detail.
New materials and systems of ultima generation.	Façades trasventiladas: Stone, Marmol, fenolicos. Ceramicos, Aluminium Etc Signposts no portantes of coating of the structural plot of a building. General planes and of detail.

Planning				
Methodologies / tests	Competencies	Ordinary class hours	Student?s personal work hours	Total hours

Supervised projects	A2 A3 A6 A44 A51 A54 B2 B3 B5 B6 B7 B14 B15 B25 B27 B28 B32 B34 C1 C3 C9	25	55	80
Document analysis	A6 A47 B3 B33 C3 C4 C8	0	25	25
Introductory activities	A2 A6 B25 C1 C3	0	5	5
Student portfolio	A2 A6 B2 B14 C6 C7 C8	5	0	5
Guest lecture / keynote speech	A6 B3 B6 B14 B25 B27 B31 B35 C1 C3 C4 C6	18	0	18
Field trip	B15 B28 C5	2	0	2
Personalized attention		15	0	15
(*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.				

Methodologies	
Methodologies	**Description**
Supervised projects	The student will develop different works or specific practices, referents to the distinct explanations given, following the different marked guidelines and controlled by the professor.
Document analysis	Utilisation of the corresponding bibliography, basic and complementary, facilitated.
Introductory activities	Realisation of drawings manually heaved in which they reflect the work of documentation realised on architectural details of the corresponding bibliography.
Student portfolio	In the folder or archivador of the student will go classifying his practical works by dates. And regularly they will have personal sessions, tutorías personalised, with each one for realisations of autoevaluación and comments of the professor on his progress
Guest lecture / keynote speech	Weekly, before or the time that expose the practical exercises that they will have to develop the students, will realise an oral presentation in the blackboard and supported with audiovisual means of the contents of the practice or exercises to realise.
Field trip	Inside the possibilities, will try some visit guided to a company or factory of recognised prestige, where the student will be able to observe of direct form, cuales are the processes of manufacture of a material or of a concrete constructive system, as well as of his back put in work.

Personalized attention	
Methodologies	**Description**
Student portfolio Introductory activities Supervised projects Guest lecture / keynote speech Field trip	In the folder or archivador of the student will go classifying his practical works by dates. And regularly they will have personal sessions, tutorías personalised, with each one for realisations of autoevaluación and comments of the professor on his progress. To the "Alumnado with recognition of dedication part time and dispenses academician of exemption of assistance", recommends them put in knowledge of the corresponding professor, said circumstance, to be able to concretise the development of this activity as it consider more suitable.

Assessment			
Methodologies	**Competencies**	**Description**	**Qualification**
Student portfolio	A2 A6 B2 B14 C6 C7 C8	In the folder or archivador of the student iran classifying his practical works: And regularly they will have personal sessions, tutorias personalised, with each one for realisations of autoevaluación and comments of the professor on his progress.	5

Supervised projects	A2 A3 A6 A44 A51 A54 B2 B3 B5 B6 B7 B14 B15 B25 B27 B28 B32 B34 C1 C3 C9	They will supervise all and each one of the works developed by the student to personal level, and will orient him regarding his quality of grafismo, constructive appearances and presentation and where has to incidir to improve the appearances indicated previously.	90
Field trip	B15 B28 C5	Specified in the section 5.	5

Assessment comments
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Sources of information	
Basic	EL DELINEADO EN LA COSTRUCCIONENRIQUE ANGURA CAMAMANUAL DEL DIBUJO ARQUITECTONICOF.CHIGPRACTICA DEL DIBUJO ARQUITECTONICOF.GARCIA RAMOSNORMAS TECNOLOGICAS DE LA EDIFICACIONPREFABRICADOS DE HORMIGONFERNANDO VILAGUREL LADRILLO Y SUS FABRICASF. CASINELLOLA MADERA EN LA CONSTRUCCIONH. KULLMANARQUITECTURA EN MADERA Y SUS TECNICASHAUS JURGEN HAUSENANALISIS DE DETALLES CONSTRUCTIVOS PARA OBRA DE NUEVA PLANTA / AUTOR : ROMÁNGONZÁLEZ ÁLVAREZ ; TUTOR : SANTIAGO LÓPEZ PIÑEIRO.2001.APROXIMACIONES DE LA ARQUITECTURA AL DETALLE / EDITOR ALEJANDRO CRISPIANI.Santiago de Chile : ARQ, [2001].ATLAS DE DETALLES CONSTRUCTIVOS : CON MÁS DE 400 EJEMPLOS.1ª ed., 3ª reimp.Barcelona : GG, [2006] (2007 imp.).BANCO DE DETALLES ARQUITECTÓNICOS 2002.[Sevilla] : El Autor, [2002].BIBLIOTECA DE DETALLES.Madrid : Ediciones Trazos, [1994].BIBLIOTECA DE DETALLES CONSTRUCTIVOS FORJADOS INCLINADOS : ESTRUCTURAS DECUBIERTA Y FORJADOS INCLINADOS DE HORMIGÓN ARMADO PARA EDIFICACIÓN.UNIDIRECCIONALES, RETICULARES Y LOSAS MACIZAS : MÁS DE 550 DETALLESCONSTRUCTIVOS ADAPTADOS A LA INSTRUCCIÓN EHE / VICENTE CASTELL, BERNABÉ FARRÉ,FLORENTINO REGALADO.[Alicante] : CYPE Ingenieros, [2004].BIBLIOTECA DE DETALLES CONSTRUCTIVOS METÁLICOS, DE HORMIGÓN Y MIXTOS ENESTRUCTURAS DE EDIFICACIÓN 600 DETALLES ... ADAPTADOS A LA INSTRUCCIÓN EHE /VICENTE CASTELL, BERNABÉ FARRÉ ORO, FLORENTINO REGALADO TESORO.4ª ed.[Madrid] : CYPE Ingenieros, [2004].CATÁLOGO DE ELEMENTOS CONSTRUCTIVOS [RECURSO ELECTRÓNICO] / [COORDINACIÓN, FCO.COSME DE MAZARREDO PAMPLÓ, CARMEN SUBIRÓN RODRIGO ; REDACTORES, JAVIER BLANCOCARRANZA ... (ET AL.)].Valencia : Instituto Valenciano de la Edificación, [2007].Ford, Edward R.THE DETAILS OF MODERN ARCHITECTURE.Cambridge : Mit Press, 1990-1996.McLeod, Virginia.EL DETALLE EN EL PAISAJISMO CONTEMPORÁNEO.Barcelona : Blume, 2008.McLeod, Virginia.DETALLES CONSTRUCTIVOS DE LA ARQUITECTURA DOMÉSTICA CONTEMPORÁNEA.Barcelona : Gustavo Gili, [2007].Regalado Tesoro, Florentino.DETALLES CONSTRUCTIVOS PRÁCTICOS METÁLICOS, DE HORMIGÓN Y MIXTOS EN ESTRUCTURASDE EDIFICACIÓN / FLORENTINO REGALADO TESORO, BERNABÉ FARRÉ ORO.2ª ed.[Madrid] : CYPE Ingenieros, 1997.Ramsey, Charles George.LAS DIMENSIONES EN ARQUITECTURA / CHARLES GEORGE RAMSEY, HAROLD REEVE SLEEPER ;EDITOR IN CHIEF JOHN RAY HOKE, JR.Esteban Castro, Anselmo.EXPERIENCIAS SOBRE SOLUCIONES DE MADERA Y SU EMPLEO EN EDIFICACIÓN.Madrid : Proiescon, [2008].Nutsch, Wolfgang.MANUAL DE CONSTRUCCIÓN : DETALLES DE INTERIORISMO.Barcelona : Gustavo Gili , 2006.Diversas páxinas web sobre materiais e sistemas constructivos.
Complementary	

Recommendations
Subjects that it is recommended to have taken before

Construction II/670G01115
Construction Materials I/670G01105
Construction I/670G01106
Building Structures II/670G01111
Building Facilities I/670G01112
Construction Materials II/670G01113
Descriptive and Representation Geometry/670G01102
Digital Graphic Tools for Building/670G01109
Building Structures I/670G01107
Architectural Graphic Expression I/670G01103
Subjects that are recommended to be taken simultaneously
Building Structures III/670G01116
Construction Materials III/670G01118
Subjects that continue the syllabus
Technical Projects I/670G01023
Technical Projects II/670G01027
Final Dissertation/670G01036
Interior, Garden and Landscape Design/670G01042
Interior Design, Gardening and Landscaping/670G01135
Other comments
A asignatura desarrolla, como métodos para a representación da arquitectura, a construcción e os seus detalles, o debuxo a man alzada (imprescindible para a representación de detalles constructivos na obra) e o delineado mediante programas informáticos e a sua aplicación concreta a representación arquitectónica e constructiva (imprescindible para o traballo en estudio). En base a esto último e imprescindible o conocimiento previo de algún programa de debuxo asistido por ordenador, preferiblemente CAD. E imprescindible acudir as clases tanto expositivas como interactivas (Taller de EGA II) provistos de un ordenador portatil con acceso a Internet.