UNIVERSITAT POLITÈCNICA DE VALÈNCIA

ESCUELA TÉCNICA SUPERIOR DE ARQUITECTURA

I. GENERAL INFORMATION:			
Acronym:	Course:		Code:
HAR	History of art		13386
			Syllabus: 178 (2015)
Academic year:	Semester:	Nature:	Credits:
2nd	A	Compulsory	4.5 credits = 2.5 (TA) + 2.0 (PL)
Coordinator:			Department:
Bonet Solves, Victoria Eugenia			ARCHITECTURAL COMPOSITION

II. GENERAL OVERVIEW OF THE SUBJECT:

The subject aims for students to acquire a number of competences and necessary skills through the study of artists and the analysis of works of art (their characteristics, components and historical and formal evolution), both from theory and practice, to be able to develop their work as architects.

Learning about the history of fine arts and applied arts will allow them to understand concepts that will be put into practice during their training (space, light, volume, perspective, etc.). Similarly, based on the understanding and knowledge of this subject, they will develop their artistic sensibility and their observation skills to improve the results of their projects and to promote the protection of heritage. On the other hand, they will gain basic knowledge of universal culture and its economic, environmental, social or ideological foundations that will help them to better understand the relationship between cultural patterns and the social role of professionals.

The content of the syllabus of the subject aims to adjust in a more coherent way to the credits and objectives of the new plan. On the other hand, it aims to offer a solid foundation on which to base the knowledge of other subjects with a different, innovative and attractive structure, and to reinforce the role of the architects' training in such an important field for their future professional career, such as their artistic and images culture. In addition to initial topics with the traditional diachronic development of the history of art, four major topics are included, which are presented around the cornerstone of the study of the work of art, an essential part of the discipline, which enables us to analyse and study the evolution since ancient history. The large subject groups are: The construction of reality; individuals and their representation; the creation of space and the content of art.

III. SELECTION AND STRUCTURING OF THE BASIC UNITS:

1. Abut the work of art
2. Introduction to Ancient Art
3. Introduction to Medieval Art
4. Introduction to Modern Art
5. Introduction to Contemporary Art
6. The construction of reality
7. Individuals and their representation
8. The creation of space
9. The content in Art

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I. GENERAL INFORMATION:			
Acronym:	*Course:*		*Code:*
EGE	Economy and Business Management		13404
			Syllabus:
			178 (2015)
Academic year:	*Semester:*	*Nature:*	*Credits:*
2nd	B	Compulsory	6 credits = 3 (TA) + 3 (PL)
Coordinator:			*Department:*
Llorca Ponce, Alicia			BUSINESS MANAGEMENT

II. GENERAL OVERVIEW OF THE SUBJECT:

This subject develops skills in the field of Economics and Business Management related to the architect's professional activity. The subject is divided into two basic modules. The first module deals with issues such as the economic system, the functioning of markets, market failures, the foundations of economic policies and sustainable development. It also analyses the characteristics of the real estate and construction sector. The second module of the subject focuses on business management: the development of real estate management skills, the real estate promotion process, economic-financial analysis, financing, taxation, marketing and viability in the real estate industry. Aspects related to the architect's professional activity such as professional processing and the role of professional associations will also be addressed.

III. SELECTION AND STRUCTURING OF THE BASIC UNITS:

1. Economy

1. Topic 1. Economic problems and systems. Scarcity and allocation of resources
2. Topic 2. The market. Basic analysis of supply and demand
3. Topic 3. The different market structures and pricing. Perfect competition, monopoly, oligopoly and monopolistic competition
4. Topic 4. Market failures and sustainable growth
5. Topic 5. Macroeconomic variables: GDP, inflation, employment
6. Topic 6. The economic policy
7. Topic 7. The real estate market and the construction sector

2. Real Estate Management

1. Topic 8. The property development process and other real estate activities
2. Topic 9. Property, the results and the economic-financial study of the company
3. Topic 10. Company financing: main sources and financing instruments. Implementation to real estate operations
4. Topic 11. Business taxation. Implementation to real estate operations
5. Topic 12. Analysis of real estate markets. Real estate marketing
6. Topic 13. Economic feasibility study of real estate projects: contents of the feasibility study and analysis of project income and costs

3. Profession

1. Topic 14. Structure of the profession, organisation of professional associations and professional conduct
2. Topic 15. Basic aspects of office organisation. Management and professional processing procedures

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ESCUELA TÉCNICA SUPERIOR DE ARQUITECTURA

I. GENERAL INFORMATION:			
Acronym:	*Course:*		*Code:*
URB1	Urban 1		13392
			Syllabus:
			178 (2015)
Academic year:	*Semester:*	*Nature:*	*Credits:*
2nd	A-B	Compulsory	9.0 credits = 4.6 (TA) + 4.4 (PL)
Coordinator:			*Department:*
Colomer Sendra, Vicente			Urban Planning

II. GENERAL OVERVIEW OF THE SUBJECT:

The syllabus is divided into three learning blocks.
The first is related to the general knowledge of the urban discipline and to the identification of the different city and territorial morphologies.
The second, to the introduction of the concept of landscape, both in its urban and territorial branch, and the third to the proactive intervention on the different basic scenarios of a modern city.
A total of seven thematic units that are developed in thirty lectures and seven assignments which must be integrated into coordinated practical projects. On a preferential basis -while not exclusively- the urban and territorial problems of the Valencian Community will be addressed and the development of remote analysis capabilities of other realities.

III. SELECTION AND STRUCTURING OF THE BASIC UNITS:

1. **UT 1 The city and the territory**
    1. 1.1 Urban planning. Definition and learning approach
    2. 1.2 Drawing the city. Urban and territorial cartographies
    3. 1.3 Morphological analysis. Type, structure and landscape
    4. 1.4 Maps, plans and by-laws. The creation of the city concept.
2. **UT 2 Basic urban scenarios. Creation, morphologies and landscape**
    1. 2.1 Inheriting the city. The transformations of the historic centre
    2. 2.2 The urban expansion of the Valencian Community
    3. 2.3 The metropolitan Valencia. The growth of urban fringe areas
    4. 2.4 The dispersion of the city. The creation of the suburban fringe
3. **UT 3 The urban scene. The image of public areas in the city**
    1. 3.1 The elements of public areas
    2. 3.2 Background and figure relationships
    3. 3.3 The perceptions and resources of urban culture
    4. 3.4 The compositional laws as a tool for analysis and spatial definition
    5. 3.5 Environmental conditions and other quality factors of public areas
4. **UT 4 Landscape and the city. The urban garden and green space systems**
    1. 4.1 The evolution of the urban garden

2. 4.2 Green spaces as an element of the general structure of open spaces
3. 4.3 From the green city to the sustainable development of the city
4. 4.4 The urban planning scales of the landscape project
5. 4.5 The plant material

5. **UT5 Urban project in historical schemes**
    1. 5.1.-Introduction The intervention on the existing city
    2. 5.2 Requirements of the road distribution system
    3. 5.3 The block as a morphological unit and the plot as residential building type demarcation.
    4. 5.4 Forms of land settlement of public facilities.
6. **UT6 Urban Project in urban fringe situations**
    1. 6.1.-Introduction Contemporary schemes
    2. 6.2 The road distribution system and the basic public facilities in an isolated plot: Schools and health centres.
    3. 6.3 Composition and integration of residential parts: Towers, laminar blocks and single-family homes: forms of grouping.
    4. 6.4 The urban setting and its forms of expression in the urban planning project.
7. **UT6 The Urban Project in low density situations**
    1. 7.1.-Introduction Extensive urban fringe areas.
    2. 7.2 Requirements of the road distribution system and single-family homes.
    3. 7.3 Distribution and layout of basic equipment.
    4. 7.4 Grouping and single-family residential homes.

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ESCUELA TÉCNICA SUPERIOR DE ARQUITECTURA

I. GENERAL DATA:			
Acronym:	**Subject:**		**Code:**
HQ1	History of Architecture 1		13387
			Study Plan: 178 (2015)
Year:	**Semester:**	**Status:**	**Credits:**
2	B	Compulsory	4,5 credits = 2,5 (TA) + 2,0 (PL)
Course Director:			**Department:**
García Ros, Vicente			Architectonical Composition

II. GENERAL DESCRIPTION OF THE SUBJECT:

History of western architecture from the classical world to Versailles. Study of the most significant works and architects, traditional constructive uses, drawing lessons of architectural project which are useful in the modern world

III. ORGANIZATION OF THE COURSE UNITS :

1. Classical Architecture
2. Medieval Architecture
3. Renaissance Architecture
4. Baroque Architecture

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I. GENERAL DATA:			
Acronym:	**Subject:**		**Code:**
PR2	Architectural Projects 2 (Design Studio)		13381
			Study Plan:
			178 (2015)
Year:	**Semester:**	**Status:**	**Credits:**
2	A-B	Compulsory	15 credits = 7,5 (TA) + 7,5 (PL)
Course Director:			**Department:**
Sentieri Omarrementeria, Carla			Architectural projects

II. GENERAL DESCRIPTION OF THE SUBJECT:

It approaches the architectural project from its concept, idea and expression and allows, from premises and definition of objectives, to organise and develop project proposals that satisfy certain functional, technical, cultural, aesthetic and environment related requirements, in the context suggested and from the understanding of the social function of architects and the responsibility of their projects.

It will be necessary to determine the tools and procedures for the representation and implementation of such proposals throughout the project, as well as the presentation of the basic criteria on which an architectural project is based.

This subject is taught by the Department of Architectural Projects, whose workshops are responsible for ensuring a structured and complete teaching in the area of knowledge.

III. SELECTION AND STRUCTURING OF THE MAIN UNITS:

1. ARCHITECTURAL PROJECT: CONCEPT. IDEA. EXPRESSION.
2. PHYSICAL MEDIUM AND CULTURAL ENVIRONMENT.
3. ACTIVITY AND FUNCTION.
4. SPACE AND FORM.
5. SUBJECT AND TECHNIQUE.
6. SYSTEMS. PROCESSES. IDIOMS.

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I. GENERAL DATA:			
Acronym:	**Subject:**		**Code:**
MAT2	Mathematics 2		13377
			Study Plan:
			178 (2015)
Year:	**Semester:**	**Status:**	**Credits:**
2	A	Basic Training	6 credits = 3 (TA) + 3 (PL)
Course Director:			**Department:**
Peris Manguillot, Alfredo			Applied Mathematics

II. GENERAL DESCRIPTION OF THE SUBJECT:

One of the main contributions of Mathematics II to the profile of the degree in Architecture is to enhance the acquisition by the student of the synthesis, abstraction and critical eye skills inherent to any mathematical discipline. In this sense, Mathematics II is essential to guide students through self-learning based on new university teaching strategies.

On the other hand, as a subject belonging to the block of propaedeutic materials, it helps acquire basic skills that serve as basis for building on subjects taken later in the degree.

Among the objectives, the student is expected to achieve the following through this subject:

- The ability to calculate auto values and auto vectors and to diagonalise square matrices and know some of the applications, in particular the inertia tensor.
- Be familiar with the analytical treatment of the curves and surfaces that appear more frequently in the applications.
- To be able to calculate partial derivatives of functions of different variables and to locate their ends.
- To acquire the main concepts of the different types of integration of functions of different variables (curvilinear, multiple and surface) that will allow them to successfully deal with structural problems, static, dynamics, field theory, heat transfer, material resistance, fluids, elasticity, electromagnetism, etc. that arise in the different areas related to architecture.
- To be able to apply the acquired theoretical knowledge to the resolution of practical problems.
- To know and be able to apply the numerical methods and the computer implementation in the resolution of architectural problems.

III. SELECTION AND STRUCTURING OF THE MAIN UNITS:

1. Functions of variable variables. Extremes calculation. Cones and quadrics.
2. Multiple integration. Applications to the calculation of flat areas, volumes and geometry of masses
3. Surface and surface integrals. 3D surface applications

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ESCUELA TÉCNICA SUPERIOR DE ARQUITECTURA

I. GENERAL INFORMATION:			
Acronym:	Course:		Code:
MCO	Materials Science		13397
			Syllabus:
			178 (2015)
Academic year:	Semester:	Nature:	Credits:
2nd	A-B	Compulsory	9.0 credits = 4.5 (TA) + 4.5 (PL)
Coordinator:			Department:
Soriano Cubells, Mª Juana			ARCHITECTURAL CONSTRUCTIONS

II. GENERAL OVERVIEW OF THE SUBJECT:

The study of the behaviour of architectural construction materials from their origin, raw materials for their production, manufacturing processes, treatments, chemical, physical and mechanical properties, classification, commercial type of products and their characteristics, uses, implementation, most frequent pathology and current regulations.

III. SELECTION AND STRUCTURING OF THE BASIC UNITS:

1. NATURAL STONE MATERIALS
2. GLASS 3. CERAMIC
4. CONGLOMERATING MATERIALS. PLASTER, LIME AND CEMENT.
5. CONGLOMERATED MATERIALS. MORTARS AND CONCRETE.
6. METALLIC MATERIALS
7. WOODS
8. PLASTIC MATERIALS
9. PAINTS
10. BITUMINOUS MATERIALS

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