



Eina Centre Universitari
Fundació Eina
Disseny Art Barcelona

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REPRESENTACIONS DIGITALS APLICADES AL DISSENY D'ESPAI I VOLUM

Salvador Huertas Vidal, Nora Balcells Repullo

Supervising Teacher: Salvador Huertas Vidal

Group: 1

Code: 105735

Credits: 6 ECTS

Course: 2

Semester: 1

Typology: Fundamentals

Subject: Applied Computing

Schedules:

Group	Schedules	Teacher
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Subject Presentation

Brief Description:

The computer tool has become an essential technical tool for the designer, and the market demands agile and reliable use in different programs and operating systems, in the representation of space.

Training Objectives:

- The ability to achieve the work and main operations of the programs, AutoCad, 3DStudio Max, Vray, Photoshop and Illustrator.
- Achieve the necessary knowledge to create originals from computer work, whether it be the creation of plans, three-dimensional models, functional prototypes, etc.
- Master the graphic resources of the programs for the representation of plans with communicative intent.
- Control the file extensions of the programs worked on and the export and import relationships for cross-working between them and other programs.
- Achieve the ability to work at scale by applying the correct units of measurement for each specific case.
- The ability to create "photorealistic" quality images through the application of materials, cameras, lighting schemes, etc.
- Motivation for the quality of work, order in the organization of files and presentation of design work.
- Understand the importance of working with computer programs in design projects.
- Learn to layout your own projects in different formats of DIN A1, A3, A4... both in graphic, written and photographic documentation.

Recommendations

Have taken the Digital Representations subject. Be familiar with the use of CAD programs.

Have taken the Technical Drawing subject. Know how to apply the knowledge gained in CAD programs.

Contents and Methodology

Brief Description:

1. AUTOCAD 2D

- 1.1 2D drawing. Autocad
- 1.2 Presentation in Paper Space
- 1.3 Layers Menu
- 1.4 Plot : Ctb, pdf
- 1.5 Utilities, Menus
- 1.6 External and image references

2. 3D STUDIO MAX

● 2.1 Generation

2.1.1 Generation and Editing of Basic Volumetries

2.1.2 Generation and Editing of Complex Volumetries

● 2.2 Render: Lighting

2.2.1 Indirect lighting

2.2.2 Outdoor lighting

2.2.3 Interior lighting

● 2.3 Render: Mapping

2.3.1 Materials

2.3.2 Material libraries

2.3.3 Maps

● 2.4 Blocks

2.4.1 Insertion of models: people, vegetation...etc.

2.4.2 Websites for downloading models, libraries and maps

3. POST-PRODUCTION

3.1 3D Studio

3.2 Adobe Photoshop

4. LAYOUT

4.1 AutoCAD

4.2 Adobe Illustrator

Teaching methodology:

The integration of theoretical and practical knowledge will be carried out with an explanation at the beginning of each session where the contents and techniques with which to achieve the objectives of each session will be presented.

The knowledge will then be applied in a training activity of variable duration. Each activity will be

accompanied by the relevant explanations. The activities may be carried out during the course of the class (directed activities) or require the student to work independently outside the classroom (supervised and autonomous activities).

There will be a final project of an individual nature that will be carried out as a supervised and autonomous activity, and which will be submitted at the end of the course.

The training activities will be based on the application and synthesis of the computer procedures acquired in theoretical classes and seminars.

Training activities:

- Theoretical Classes

ECTS: 20%

Teaching/learning methodology: Lectures: key concepts and general procedures of applied computing.

- Workshop

ECTS: 30%

Teaching/learning methodology: Classroom exercises with assistance and resolution of difficulties in the application of the different resources used.

- Performing exercises

ECTS: 50%

Teaching/learning methodology: Independent work: carrying out exercises on the application and synthesis of computer processes

Evaluation

General evaluation regulations

A student will be considered "Not Assessable" (NA) if they have not submitted all the learning evidences or have not attended 80% of the classes without justifying their absences. In case of a justified absence, the student must contact the teacher at the time of rejoining to determine the recovery of the activities they missed.

If the student commits any irregularity that may lead to a significant variation in the grade of an evaluation act, that evaluation act will be graded with 0, regardless of the disciplinary process that may be initiated. If several irregularities occur in the evaluation acts of the same subject, the final grade for that subject will be 0.

Continuous evaluation system

The evaluation system of EINA and UAB is a continuous assessment system, the objective of which is for the student to know their academic progress throughout their educational process to allow them to improve it.

The continuous assessment process must include a minimum of three evaluative activities, of two different types, distributed throughout the course, none of which can represent more than 50% of the final grade.

The evaluation criteria presented below are generic in nature. Each of the activities and exercises carried out during the course of the subject will be accompanied by specific objectives and evaluation criteria.

1. Contents

They will be assessed based on the achievement of the general objectives, through:

- Autocad work 35%
- 3ds Max work 35%
- Independent project 20%
- Exams 10%
- Classroom intervention

2. Procedures

They will be assessed based on the general objectives of the subject with the following parameters:

- Procedure followed by the student
- How he works and how he applies his knowledge
- Understanding and assimilation of the contents
- Physical presentation of the works

Review process

The review can be requested from the teaching staff and will be carried out according to the school

calendar.

Learning outcomes of the degree program

Knowledge

Reference essential knowledge of the sciences and auxiliary disciplines of design, such as anthropometry, ergonomics, visual communication, evaluation methods, marketing, and prospecting.

Skills

Apply plastic expression skills and knowledge of materials and production technologies in accordance with the objectives of a design project.

Graphically represent spaces, volumes, planes, and surfaces using the characteristic techniques of design.

Use digital tools and technologies according to creative and production processes in the field of design

Competencies

Manage design-related tasks autonomously, planning and organising time and processes in professional and/or academic settings.

Apply acquired knowledge to the execution of design and art projects with professional standards, considering user and audience diversity.



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Bibliography and Resources

Space Resources

www.autodesk.es

Websites of spaces:

www.3dsky.com (3D models)

www.evermotion.com (3D models)

www.archiproducts.com (3D models)

www.kvadrat.es (textile textures)

www.egger.com (wood textures)