

COMPUTER AIDED DESIGN I

Degree in Graphical Design

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Code: 11513

Main Scientific Area: Drawing

Lecturer: Pedro Mota Teixeira

Language of Instruction: Portuguese

Regime: S2

Contact Hours: 60h Total Workload: 100h

ECTS: 6,0

Objectives

A Course in Computational Design I introduces students to learning two-dimensional representation technologytools, through practical exercises; associated with the idea of providing students a wide range of new imagery solutions in the area of graphic design and multimedia, including digital image's theoretical/practical concepts (bitmap).

Learning Outcomes

Theoretical concepts.

Going to digital drawing as a means of artistic expression and communication in the context of the current designand multimedia, fostering new creative solutions in imaging communicative modern and comprehensive.

Practical concepts.

To enable students to implement a wide range of new visual identities that underpin the digital computer aideddesign as a tool for high potential in communication design; stimulating the creation of two-dimensional models when faced with creating a graphic design project.

Course Contents

1. theoretical concepts

1.1 Bitmap Image

Basic elements of which are created by graphic images.

The pixel and the bitmap image. Its characteristics.

Images of high and low resolution.

Specifics Resolution + standard techniques in design.

CMYK color model, RGB and Grayscale.

Basic tools in image processing.

Weight and balance of files (work organization).

Working models.

2. Practical concepts.

Going to digital drawing as a means of artistic expression and communication.

2.1 The bitmap image

Drawing exercises using the computer program Adobe Photoshop.

Approach to line, shape, volume, color and texture.

The selections and clipping.

The filters.

The "path".

The alpha channel.

Principles of photographic image treatment.

The effects.

Light, shadow and differentiation of planes.

Design from scanning solutions.

Drawing created directly from the computer.

The digital retouch.

Creativity, expression and aesthetics.

Recommended Bibliography

Andrew Faulkner and Conrad Chavez Adobe Photoshop CC Classroom in a Book, Paperback

Robert Shufflebotham Photoshop CC in easy steps, Adobe Team.

Martin Evening, Adobe Photoshop CC for Photographers, 2015.

Jennifer Smith, Adobe Creative Cloud Design Tools All-in-One For Dummies, 2013.

Andrew Faulkner Brie Gyncild, Adobe Photoshop Classroom in a Book, 2016.

Learning and Teaching Methods

Through exploration tool adobe photoshop students acquire competence in the development of theory and practice of digital bitmap images. The exercises aim at two distinct approaches: the creation of synthesized images, and

manipulation of images captured. The exercises and the contents are formatted so as to direct the students through a global software "tour" in order to acquire advanced skills in the use of creating and manipulating bitmap images.

Assessment Methods

Continuous assessment based on class exercises will target the following parameters:

- Development project.
- Compliance with the delivery of work in stipulated timings.
- Interest, participation and intervention.

Attendance and punctuality are key factors for a good performance in the course, as well as for the preparation of future professional life. Active participation in the classroom makes students take full advantage of the professor and their colleagues.

The final classification is obtained by evaluating all proposed work. Only properly monitored work by the professor, is considered validated. Exceeded deadlines are penalized.

In this lecture, it's not allowed the subscription to final exams, as clearly expressed in 9th article of RIAPA. The continuous and periodic evaluation is the only available evaluation method.

Finalists and students with special statutes have access to Special Period Exam that follows the end of the academic year, as expressed in RIAPA.

Final mark improvement exams can be subscribed by students whom attended to the lecture, which means that only students with verified 2/3 classes' frequency are validated to subscribe to this exam. The exam consists of a proposed work, determined by the teacher of the lecture, and validated by the DRAWING Disciplinary Area. Students must subscribe themselves for the purpose within the stipulated deadlines by the services.

EA - Classroom Exercises = 20%

P1 - 1st Work Proposal = 35%

P2 - 2nd Work Proposal = 35%

P - Attendance and punctuality = 10%