

COMPUTER AIDED DESIGN II

Degree in Graphical Design

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Code: 11514

Main Scientific Area: Drawing

Lecturer: Diogo Vicente Inácio Portela Bessa

Language of Instruction: Portuguese

Regime: S1

Contact Hours: 60h Total Workload: 100h

ECTS: 6,0

Objectives

The Curricular Unit of Computer Aided Design II aims to introduce technological tools of two-dimensional and vector representation related with graphic/digital design and illustration's fields; develop, explore and stimulate student's sensitivity towards an articulation between concept, technique and aesthetics that respects notions of visual and graphic harmony in iconographic and infographic compositions; introduce and explore the vector drawing software Adobe Illustrator; and, finally, provide students with sufficient bases for further extracurricular development in other design areas (branding/ identity, UX/ Design, typography, etc.).

Learning Outcomes

The goal is for students to acquire theoretical and practical skills in the creation of vector digital images through the exploration of vectors and the respective computational tools used in their development.

The exercises, accompanied by their respective tutorials, aim to:

- Acquisition of global skills in software, ranging from the use of tools for vector drawing and bitmap stylization, to the process of exporting these solutions for screen or print formats;
- Acquisition of global knowledge related to different stylistic trends, taking into account concepts and combinations of line, shape, volume, color, and texture in vector drawing, and the exploration of vector language considering various degrees of simplification/stylization of represented objects;
- Interpretation and implementation of infographic data (infographics) and initiation to brand/image (identity) articulation in the current context of information design, taking into account the relationship between text and image;
- Exploration of a possible authorial vector graphic language.

Course Contents

Creation of infographics and iconographies;

Interpretation of data and the significance of infographics in the current context of information design;

Two-dimensional and three-dimensional infographic application of concepts related to graphic expression, using diagrammatic and perspective languages (stylized and/or expressively detailed);

Computer drawing exercises using vector tools;

Consolidation of the content and technologies/tools explored in the previous semester in the course of Computational Drawing I;

Creation of infographic elements and their integration with typographic messaging;

Exploration of line, shape, volume, color, and texture through vector language created directly on the computer.

Recommended Bibliography

BAER, K. (2010). Information Design Workbook: Graphic Approaches, Solutions, and Inspiration plus 30 Case Studies,. Rockport Publishers Inc.

CAIRO, A. (2005), Sailing to the Future: Infographics in the Internet Era. Multimedia Bootcamp - University of North Carolina at Chapel Hill.

HOLMES, N. (2021). Infographic Design: Visual Storytelling with Information and Data. Gingko Press Inc..

RENDGEN, S. (2021). Information Graphics. Taschen.

ROAM, D. (2008). The Back of the Napkin: Solving Problems and Selling Ideas with Pictures. Portfolio.

SHAOQIANG, W. (2018). Playful Data. Promopress.

TUFTE, E.R. (1990). Envisioning Information. Graphics Press USA.

TUFTE, E.R. (2001). The Visual Display of Quantitative Information, Graphics Press USA.

WOOD, B. (2023). Adobe Illustrator Classroom in a Book. Adobe Press.

LISA, F. (2023). Adobe After Effects Classroom in a Book. Adobe Press.

Learning and Teaching Methods

The most effective way to acquire skills in the area of digital image manipulation is by using the most common vectorial drawing and animating tools. With this in mind, a series of practical exercises are proposed in a tutorial format where students repeat step by step ,each of the exercises presented by the teacher. After each of these blocks of exercises, the development capabilities of the students are put into practice, requiring from them them at the end of each tutorial, a personalized version of the exercise, in addition to two Proposals (a project exercise) that concentrates the various themes already exercised. In this way, students are led to create innovative solutions while learning or deepening their knowledge regarding the digital tools and themes addressed.

Assessment Methods

OPERATING REGIME:

Students should consult the Academic Regulation (Regulamento Académico— RA) of the IPCA and the Regulation for the Assessment of Knowledge and Skills (Regulamento de Avaliação de Conhecimentos e Competências — RACC) of the ESD.

LEARNING EVALUATION:

Continuous evaluation

The assessment regime in this curricular unit is continuous assessment (according to point 1 of article 3 of the RACC of the ESD) and will aim at the following parameters:

- Fulfillment of work deliveries within the stipulated timings. • Interest, participation and intervention.
- Organization of work (namely digital information). • Work methodology.
- Quantitative and qualitative evolution (intuitive/cognitive response). • Creativity.

Continuous assessment integrates the following learning assessment elements with weighting:

Class exercises = 20%

Proposal 01 = 35% (Graphic Infographic)

Proposal 02 = 35% (Illustrated Infographic)

A = 10% (Attendance, interest, meeting deadlines, etc.)

The student must attend a minimum of 75% of the classes taught to obtain classification in the continuous evaluation period. In the case of students covered by special attendance regimes (section 1, article 135.2 of the IPCA Academic Regulation), attendance and participation in the classroom may be replaced by alternative contact time with the teacher, during opening hours or another time to combine, as long as ensuring full compliance with the objectives defined in the curricular unit, and safeguarding equal treatment among students.

Assessment during exams (1st or 2nd semesters):

This curricular unit does not allow the examination period of the 1st or 2nd semester (according to section 4 of article 4 of the RACC of the ESD)

Rating in special season:

Only students who are in a special attendance regime have access to this season (as described in section I, article 135 and in point 5, article 209, of the IPCA Academic Regulations). The student must inform the professor about his intention to enroll in a special period. The scheduled date for the "exam" corresponds to the delivery day of the project prepared by the student. Student and teacher must combine the means of contact, during office hours or another time to be agreed, to ensure follow-up

mandatory part of the project and the total fulfillment of the objectives defined in the curricular unit. The assessment in this special season integrates the following elements of learning assessment with weighting:

Follow and interest: 30%

Project: 70%

Proposal 01 = 50% (Graphic Infographic)

Proposal 02 = 50% (Illustrated Infographic)

Grade improvement:

In this curricular unit, grade improvement works through continuous assessment (according to point 2 of article 6 of the RACC of the ESD)

The assessment integrates the following learning assessment elements with weighting:

Class exercises = 20%

Proposal 01 = 35% (Graphic Infographic)

Proposal 02 = 35% (Illustrated Infographic)

A = 10% (Attendance, interest, meeting deadlines, etc.)