

25874 - Artistic Expression II

Información del Plan Docente

Academic Year	2017/18
Faculty / School	110 - Escuela de Ingeniería y Arquitectura
Degree	558 - Bachelor's Degree in Industrial Design and Product Development Engineering
ECTS	6.0
Year	2
Semester	First semester
Subject Type	Basic Education
Module	---

1.General information

1.1.Introduction

1.2.Recommendations to take this course

1.3.Context and importance of this course in the degree

1.4.Activities and key dates

2.Learning goals

2.1.Learning goals

2.2.Importance of learning goals

3.Aims of the course and competences

3.1.Aims of the course

3.2.Competences

BASIC COMPETENCES

CB01. Students have demonstrated knowledge and understanding in a field of study that is part of the general secondary education curricular, and is typically at a level which, although it is supported by advanced textbooks, includes some aspects that involve knowledge of the forefront of their field of study.

CB02. Students can apply their knowledge to their work or vocation in a professional manner and have competences typically demonstrated through devising and defending arguments and solving problems within their field of study.

CB03. Students have the ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include an important reflection on social, scientific or ethical issues.

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CB04. Students can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.

CB05. Students have developed those skills needed to undertake further studies with a high degree of autonomy.

GENERAL COMPETENCES

GC01. Able to acquire basic knowledge of the profession of industrial design, to combine that generalist knowledge and expertise with those who generate innovative and competitive proposals.

GC04. Ability to organize time effectively and coordinate activities to acquire new knowledge quickly and perform under pressure.

GC05. Capacity to collect, manage, analyze and synthesize information from various sources for the development of design projects and product development. Capacity to use this documentation to obtain conclusions aimed at solving problems and making decisions with initiative, creativity and critical thinking, in order to generate new product concepts, new ideas and solutions.

GC06. Ability to generate the necessary documentation for the proper transmission of ideas through graphics, reports and technical documents, models and prototypes, oral presentations in Spanish and other languages.

GC07. Ability to use and master techniques, skills, tools and techniques and communication and others specific of design engineering needed for design practice.

GC08. Ability to learn continuously, to develop autonomous learning strategies and to work in multidisciplinary groups with motivation and determination to achieve goals.

GC09. Knowing the industries, organizations, regulations and procedures and other elements to be considered in industrial design projects.

GC10. Ability to plan, budget, organize, direct and control tasks, people and resources.

SPECIFIC COMPETENCES

SC05. Ability to conduct effective and professional presentations through drawing and digital technologies using visual skills to communicate ideas and concepts quickly and efficiently, by selecting the most appropriate media and content.

SC17. Ability to make models and prototypes using workshop techniques and tools. Know and master three-dimensional representation techniques traditional and digital as well as its tools and materials.

4. Assessment (1st and 2nd call)

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4.1. Assessment tasks (description of tasks, marking system and assessment criteria)

5. Methodology, learning tasks, syllabus and resources

5.1. Methodological overview

The learning process that is designed for this subject is based on the following:

6 credits of the subject corresponding to 150 hours of student work, organized in:

Theory class 20

Lab 40

Carrying out practical application or research work 55

Teacher-student tutoring 10

Study and personal work 15

Assessment tests 10

5.2. Learning tasks

1. Theoretical and practical classes

3 contact hours per week will be dedicated to theoretical and practical classes. The lecture will combine the use of slate and computer, in which the theoretical contents and resolution of digital graphic activities will be presented without an explicit separation between them. Students were provided with theoretical explanations with clarifier examples.

2. Computer practices

Computer practical sessions of 3 hours each to be taught in a computer labs will be made. Software used will allow students to carry them out. This software will allow the student to develop the planned activities and help the understanding of the proposed learning outcomes. Students work individually.

3. Supervised projects

These works are develop both individually and in groups.

4. Workshop practices

They are distributed throughout the semester and their assessment will be part of the final grade for the course. Training in techniques of representation of 3D models is carried out both classroom work, computer classroom management programs and associated laboratory work to acquire the knowledge and use of tools and machines needed.

5. Independent work of the student.

The student will apply content rights treaties to solve the proposed work. This activity is essential in the learning process and overcoming evaluation activities.

5.3.Syllabus

The subject program includes the following topics:

- Topic 1: Graphic styles and application in various stages of design.
- Topic 2: Digitization of sketches. Converting bit map vector graphics. Sketching tablet.
- Topic 3: Contour drawing. Line modulation. Construction of axes, symmetries, unseen parts, kinetic lines, etc.
- Topic 4: Treatment digital chiaroscuro.
- Topic 5: Applying color to the product ranges.
- Topic 6: Design of funds highlighted.
- Topic 7: Human figure. Heads and hands.
- Topic 8: Human figure. Synthesis anatomy and dummy.
- Topic 9: Conceptual panels design.
- Topic 10: Definition of model and prototype. Types of models.
- Topic 11: Materials and equipment for performing physical models.
- Topic 12: Techniques execution of physical models.
- Topic 13: Virtual models. Definition, use, and types.
- Topic 14: From the virtual model to physical model.

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- Topic 15: Techniques execution of virtual models.

5.4.Course planning and calendar

Blocks	Topics
Blocks 1-2	Treatment of formal and expressive character evolution in the conceptual stage of product design.
Blocks 3-4	Models and sketchy drawing shapes in the conceptual stage of product design through digital graphic techniques with software support.
Blocks 5-6	Color and design funds highlighted in the presentation of the product. Digital chiaroscuro.
Blocks 7-8	Treatment of human figure. Conceptual narrative panels and application resources.
Blocks 9-10	Knowledge of media, materials and 3D techniques: Models. Prototypes.
Blocks 11-12	Management of the expressive possibilities of the development of models and selecting the appropriate construction techniques depending on the product materials.
Blocks 12-14	Knowledge and mastery of this method of expression and its usefulness as a tool for representing the characteristics of the products.

5.5.Bibliography and recommended resources

[BB: Bibliografía básica / BC: Bibliografía complementaria]

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- [BB] 3Dtotal.com. Digital Art Masters: Volume 2.. Taylor & Francis 2007
- [BB] Berchon, Mathilde.. La impresión 3D : guía definitiva para makers, diseñadores , estudiantes, profesionales, artistas y manitas en general / Mathilde Berchon ; con la colaboración de Bertier Luyt. [Libro electrónico] Barcelona : Editorial Gustavo Gili, [2016]
- [BB] Bryden, Douglas. Diseño de producto : CAD y prototipado rápido / Douglas Bryden ; [traducción, Jesús de Cos Pinto y Alicia Misrahi Vallès]. - 1ª ed. Barcelona : Promopress, 2014
- [BB] Consalez, Lorenzo. Maquetas: la representación del espacio en el proyecto arquitectónico / Lorenzo Consalez, Luigi Bertazzoni. 1ª ed., 5ª tirada Barcelona : Gustavo Gili, imp. 2014
- [BB] Dunn, Nick. Maquetas de arquitectura : medios, tipos, aplicación / Nick Dunn . 1ª ed. en lengua española Barcelona : Blume, 2010
- [BB] Greenberg, S., Carpendale, S., Marquardt, N., & Buxton, B.. Sketching user experiences: The workbook.. Elsevier 2011
- [BB] Henry, K. . Dibujo para diseñadores de producto: De la idea al papel.. Ed. Promopress 2012
- [BB] Hlavács, George. The Exceptionally Simple Theory of Sketching: Easy to Follow Tips and Tricks to Make your Sketches Look Beautiful. BIS Publishers and George Hlavács 2014
- [BB] Knoll, Wolfgang. Maquetas de arquitectura : técnicas y construcción / Wolfgang Knoll, Martin Hechinger ; fotografías de Hans- Joachim Heyer ; [traducción, Alejandro Pinós Simmel] . Nueva ed. rev. y amp. Barcelona : Gustavo Gili, D. L. 2009
- [BB] Lea, Derek. Creative Photoshop: digital illustration and art techniques covering Photoshop CS3 Taylor & Francis. 2007
- [BB] Navarro Lizandra, José Luis. Maquetas, modelos y moldes : Materiales y técnicas para dar forma a las ideas/ José Luis Navarro Lizandra . [Reimp.] Castelló de la Plana : Publicacions de la Universitat Jaume I, Servei de Comunicació i Publicacions, D.L. 2005
- [BB] Pascual, E., Pedrero, P.. Maquetismo arquitectónico. Colección artes y oficios. Parramón Ediciones. 2010
- [BB] Perspective Sketching: Freehand and Digital Drawing Techniques for Artists & Designers.. 2015
- [BB] Pipes, Alan. Production for graphic designers. Laurence King Publishing, 2005
- [BB] Robertson, S., Bertling, T. How to Draw: Drawing and Sketching Objects and Environments from Your Imagination. Design Studio Press, 2013
- [BB] Robertson, S., Bertling, T.. How to Render: the fundamentals of light, shadow and reflectivity.. Design Studio Press, 2014
- [BB] Seegmiller, D.. Digital character painting using Photoshop CS3. Charles River Media, 2007
- [BB] Wei Xu. Drawing in the Digital Age: An Observational Method for Artists and Animators. John Wiley & Sons, 2012

Listado de URL

- Jonson, B. (2005). Design ideation: the conceptual sketch in the digital age. Design studies, 26(6), 613-624 [http://www.sciencedirect.com/science/article/pii/S0142694X05000189]
- Knight, M., Dokonal, W., Brown, A., & Hannibal, C. (2005). Contemporary digital Techniques in the Early stages of Design. In Computer Aided Architectural Design Futures 2005 (pp. 165-174). Springer Netherlands [http://papers.cumincad.org/data/works/att/cf2005_1_37_234.content.pdf]
- Müller, F., Pache, M., & Lindemann, U. (2003). Digital free-hand sketching in 3D-a tool for early design phases [https://www.designsociety.org/publication/24172/digital_free-hand_sketching_in_3d-a_tool_for_early_design_phases]