

Teaching guide

IDENTIFICATION DETAILS

Degree:	Architecture		
Scope	Architecture, construction, building and urban planning, and civil engineering		
Faculty/School:	Higher Polytechnic School		
Course:	INDUSTRIAL AND FURNITURE DESIGN		
Type:	Optional	ECTS credits:	3
Year:	4	Code:	3760
Teaching period:	Eighth semester		
Subject:	Projects		
Module:	Projectual		
Teaching type:	Classroom-based		
Language:	Spanish		
Total number of student study hours:	75		

SUBJECT DESCRIPTION

Industrial Design proposes a broadened path of exploration, taking advantage of the architect's design skills. Not only will it be a matter of deepening the knowledge of the systems of needs, but also the intellectual and ethical commitments that each project implies will be recognized and assumed. To do this, it will be necessary to provide the project with the required cultural burden, overcoming the profile of "creative technician". All this will materialize in proposals defined by their ideological characterization, innovative in communication, technological and productive aspects.

GOAL

Familiarize yourself with the industrial production system by comprehensively managing the complexity of the design process.

PRIOR KNOWLEDGE

It is advisable to have passed the project subjects from previous courses.

COURSE SYLLABUS

The contents to be developed within this course address issues related to basic aspects of Industrial Design, according to the following structure:

Unit 1: Design, Product Systems.

Product and Needs.

Needs and Wishes. Pyramid of needs and pyramid of desires. Emotional design: visceral product, behavioral product and reflective product.

Unit 2: Design and Context.

Cultural structure. Design as an instrument for interpreting and creating culture.

Meaning, function and possibilities of design in different contexts.

Multiplicity and complexity of the environment. Multiple realities, multiple contexts.

Current context. Changes in society, globality, from a society based on possession to a society based on access.

New trends and new technologies. New paths for design.

Unit 3: Conceptual Design, Product Concept and Conceptual Product.

Product and Trends.

Paradigms. New paradigms.

Concept generation.

Unit 4: Product and Strategy.

Object and Product. Object design and product design.

Strategy and project.

Brand and Product.

Product as a brand expression.

Unit 5: Product and Industrial Sector.

Industry and its different types of scales and orientations.

Unit 6: Design and Processes

Product, Materials, Technology and Production Scale.

Appropriate technologies.

Production resources, combinations.

Project operations.

Structural, formal and productive coherence.

Sustainable Development and Design.

Unit 7: Design and Communication.
Communication Strategies.
Project Representation and Communication.
Material and virtual resources.
2D and 3D computing resources.
Graphics, models, construction tests.

EDUCATION ACTIVITIES

A WORKSHOP WORK SCHEME will be structured, integrating students in the responsibility of guiding their research. The production of this workshop will be continuous and public. Somehow, the student must become a researcher, guided in their search and proposed by group work sessions, moderated by the workshop teacher. We will work by superimposing the following activities: - WORKSHOP WORK SESSIONS: Students will work in class on their projects, from which critical sessions will be developed led by the teacher. - THEORETICAL CLASSES OF THE TEACHER: Introductory classes will be held, in order to guide and catalyze the student's research on the topics to be developed in the proposed exercises. - THEORETICAL CLASSES FOR STUDENTS: The students will teach theoretical classes based on the material and bibliography provided by the teacher. These classes will rotate the role of different groups in lines of research close to current projects. - PUBLIC EVALUATION: At the close of the coursework, a day of public exhibition of the workshop will be established, in which students will present the conclusions of their research and designs.

DISTRIBUTION OF WORK TIME

TEACHER-LED TRAINING ACTIVITIES	INDIVIDUAL WORK
30 Horas	45 Horas

SKILLS

Basic Skills

Students must have demonstrated knowledge and understanding in an area of study that is founded on general secondary education. Moreover, the area of study is typically at a level that includes certain aspects implying knowledge at the forefront of its field of study, albeit supported by advanced textbooks

Students must be able to apply their knowledge to their work or vocation in a professional manner and possess skills that can typically be demonstrated by coming up with and sustaining arguments and solving problems within their field of study.

Students must have the ability to gather and interpret relevant data (usually within their field of study) in order to make judgments that include reflections on pertinent social, scientific or ethical issues

Students must be able to convey information, ideas, problems and solutions to both an expert and non-expert audience

Students must have developed the learning skills needed to undertake further study with a high degree of independence

Ability to solve problems and to take decisions.

Aptitude to create architectural projects that meet both aesthetic and technical requirements.

An adequate knowledge of the history and theories of architecture, as well as the arts, technology and human sciences related to them.

General Skills

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Specific skills

Adequate knowledge of general theories of form, composition and architectural types.

Adequate knowledge of methods for studying symbolization processes, practical functions and ergonomics.

LEARNING RESULTS

Relate the design environment and the scope of the architectural project.

Hierarchize levels of development as the closing of a process and the transition of the capacity to project.

Detect the relationships between design and its industrialization, carrying out a project that can be industrialized.

LEARNING APPRAISAL SYSTEM

CONTINUOUS EVALUATION During the course, the student will carry out two projects and a practical research project. Considerations about submissions: - Papers delivered after the deadline: Any work submitted after the deadline will be considered for the final grade with the maximum passing grade. - Papers submitted with delays greater than one school day will not be accepted. - The absence of a part-time job, as well as attendance at less than 80% of the teaching days, will imply the suspension of continuous grading. Weighting of grades: - Practice 1:25% - Practice 2:25% - Practical research work: 50% Papers will be graded from 0 to 10. The final grade will be the sum of the partials according to the previous weighting. **ORDINARY AND EXTRAORDINARY EXAMS** Students who do not pass the subject in the evaluation per course may apply for the ordinary and extraordinary call provided that they submit all the internships for the course. These practices will have a maximum weighting of 40% of the total final grade. The rest of the grade (60%) will consist of the resolution of a theoretical exam in which the fundamental contents of the course will be asked.

Plagiarism, as well as the use of illegitimate means in evaluation tests, will be sanctioned in accordance with those established in the Evaluation Regulations and the University's Coexistence Regulations.

ETHICAL AND RESPONSIBLE USE OF ARTIFICIAL INTELLIGENCE

1.- The use of any Artificial Intelligence (AI) system or service shall be determined by the lecturer, and may only be used in the manner and under the conditions indicated by them. In all cases, its use must comply with the following principles:

- a) The use of AI systems or services must be accompanied by critical reflection on the part of the student regarding their impact and/or limitations in the development of the assigned task or project.
- b) The selection of AI systems or services must be justified, explaining their advantages over other tools or methods of obtaining information. The chosen model and the version of AI used must be described in as much detail as possible.
- c) The student must appropriately cite the use of AI systems or services, specifying the parts of the work where they were used and describing the creative process followed. The use of citation formats and usage examples may be consulted on the Library website(https://www.ufv.es/gestion-de-la-informacion_biblioteca/).
- d) The results obtained through AI systems or services must always be verified. As the author, the student is responsible for their work and for the legitimacy of the sources used.

2.- In all cases, the use of AI systems or services must always respect the principles of responsible and ethical use

upheld by the university, as outlined in the [Guide for the Responsible Use of Artificial Intelligence in Studies at UFV](#). Additionally, the lecturer may request other types of individual commitments from the student when deemed necessary.

3.- Without prejudice to the above, in cases of doubt regarding the ethical and responsible use of any AI system or service, the lecturer may require an oral presentation of any assignment or partial submission. This oral evaluation shall take precedence over any other form of assessment outlined in the Teaching Guide. In this oral defense, the student must demonstrate knowledge of the subject, justify their decisions, and explain the development of their work.

BIBLIOGRAPHY AND OTHER RESOURCES

Basic

Bürdek, B: Design, History, Theory and Practice of Industrial Design. Gustavo Gili, 1994

Additional

Manzini, E. The subject matter of the invention. CEAC Materials and Projects, 1993

Munari, B. How are objects born? Notes for a design methodology Gustavo Gili, 1989

Munari, B. Design and Visual Communication Gustavo Gili, 1977