# Syllabus

## *Course Description*

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| **Course Title** | Product Design |
| **Course Code** | 42609 |
| **Course Title Additional** | |
| **Scientific-Disciplinary Sector** | CEAR-08/D |
| **Language** | Italian |
| **Degree Course** | Professional Bachelor in Wood Technology |
| **Other Degree Courses (Loaned)** | |
| **Lecturers** | Dott. Simone Bellan,<br>Simone.Bellan@unibz.it |
| **Teaching Assistant** | |
| **Semester** | First semester |
| **Course Year/s** | 1 |
| **CP** | 4 |
| **Teaching Hours** | 30 |
| **Lab Hours** | 0 |
| **Individual Study Hours** | 70 |
| **Planned Office Hours** | 12 |
| **Contents Summary** | Design methodology<br>- from the idea to the finished product<br>- materials and product design<br>Design and processes<br>- brief, concept, choice of material, CMF, work tools, mock-up and aesthetic model, evaluation of production and processing technologies, prototype, sustainability in the production chain, packaging, transport, traceability, communication, sale, disposal<br>- branding processes<br>Designers and products<br>- the Master of Industrial Design<br>- contemporary designers<br>- case histories. |

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| **Course Topics** | Introduction to Product Design<br>- General course setup, information on the planned exercises and the working methods of the "Product Design" course and the "Product Design Workshop."<br>- Syllabus presentation, essential and recommended readings.<br>- Online lessons (Teams, OLE), remote office hours; information on OLE online materials.<br>- Case studies: examples of Product Design in the "learning by doing" approach.<br><br>Design Methodology<br>- Lecture on the Industrial Designer's design approach.<br>- Materials and Product Design: Dieter Rams, design process and materials, from brief to product. LCA Life Cycle Assessment, the sustainable product life cycle.<br><br>Design and Processes<br>The Designer's approach to design. Tools, materials, and processes for defining the right Product design. The selection of production technologies suited to project development, the evolutionary steps for product generation (from study models to aesthetic model or prototype). Attention to the supply chain, packaging, and handling (transport) of the product, including an approach capable of evaluating the product within a complex process (production, communication, sales, disposal, repair, recycling).<br><br>Designers and products<br>- Historical notes on the Masters of Industrial Design, with eminent examples .<br>- Contemporary Designers: focus on current professionals Industrial and Product Designer<br>- Case studies of industrial design products |
| **Keywords** | Design Methodology, Design and Processes, Sustainability, Circularity |
| **Recommended Prerequisites** | Recommended but not required: hand drawing, 2D technical drawing, use of a presentation software (Power Point or Keynote), basics of graphic layout. |
| **Propaedeutic Courses** | |
| **Teaching Format** | Teaching format Lectures, exercises, professional guests, |

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| | educational visits (optional). |
| **Mandatory Attendance** | Attendance is recommended but not mandatory.<br>Exam modalities for non-attending students are indicated below, in the fields "Assessment" and "Evaluation criteria and criteria for awarding marks". |
| **Specific Educational Objectives and Learning Outcomes** | The course aims to provide the student with the basic critical tools for the formation of their own project methodology in the field of product design, treating wood as the main theme. The student will be gradually introduced into the discipline, with targeted design methodology lessons, supported by the analysis of real case studies. The invitation of sector experts (companies and/or professionals operating in the fields of product design or in the world of design) and possible external educational visits will complete the contents of the lessons. The assignment of theoretical-practical exercises, which will present problems of increasing complexity, will see the course "42609 Product Design" integrated with the course "42610 Laboratory of Product Design", for the practical application of the theoretical methodologies addressed during the semester.<br>Knowledge and understanding:<br>• D1.1 – Knowledge of the key concepts and technologies of data science disciplines.<br>Knowledge of the fundamentals of industrial design and product design that allow you to understand, analyze and evaluate the objective quality of an artefact.<br>• D1.2 – Understanding of the skills, tools and techniques required for an effective use of data science.<br>Ability to understand the various phases of conception, conception, development, presentation and creation of a design product.<br>• D1.11 – Knowledge of the main algorithms for data analysis, and of elements of the complexity theory.<br>Applying knowledge and understanding:<br>• D2.2 – Ability to address and solve a problem using scientific methods.<br>Re-elaboration of the knowledge acquired for the formation of one's own basic project methodology in the context of product design. Practical design application for the creation of a contemporary design product.<br>• D2.4 – Ability to develop programmes and use tools for the |

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| | analysis and management of data and related infrastructures.<br>Making judgments<br>• D3.2 – Ability to autonomously select the documentation (in the form of books, web, magazines, etc.) needed to keep up to date in a given sector.<br>Ability to critically and objectively evaluate the factors determining the aesthetic, perceptive (appeal), technical and productive quality of a design product, be it industrial or high craftsmanship.<br>Communication skills<br>• D4.1 – Ability to use Italian at an advanced level with particular reference to disciplinary terminology.<br>Autonomy in the presentation of a design project with appropriate methods and technical language.<br>Learning skills<br>• D5.3 – Ability to deal with problems in a systematic and creative way and to appropriate problem-solving techniques. Ability to independently and proactively research, update and extend the knowledge acquired and the topics covered during the course. Development of organizational skills and teamwork. |
| **Specific Educational Objectives and Learning Outcomes (additional info.)** | Learning the theoretical, design, and methodological foundations of Product design. |
| **Assessment** | Assessment / Attending students<br>The exam consists of the overall evaluation of the work carried out during the course (whether individual or in a team).<br>In particular, the design quality of the projects created in compliance with the assigned briefs, the ability to rework and apply the theoretical notions learned, and the commitment made throughout the duration of the "42610 Laboratory of Product Design" will be judged. Autonomy in the presentation of a design project with appropriate methods and technical language and respect for deadlines in the delivery of the requested documents contribute to the definition of the final grade.<br><br>Exam modalities / Non-attending students<br>The exam consists of the overall evaluation of the work carried out during the course (whether individual or in a team).<br>In particular, the design quality of the projects created in compliance with the assigned briefs, the ability to rework and apply |

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| | the theoretical notions learned, and the commitment made throughout the duration of the "42610 Laboratory of Product Design" will be judged. Autonomy in the presentation of a design project with appropriate methods and technical language and respect for deadlines in the delivery of the requested documents contribute to the definition of the final grade.<br>Reviews with the teacher on the projects assigned during the semester are required, in a manner to be agreed upon and according to the course calendar, with delivery of the requested papers on OLE. Projects must be evaluated DURING the course and BEFORE the final exam, otherwise the exam cannot be recorded.<br><br>Even if attendance of this course is highly recommended, please inform the teacher at the beginning of the course if you will take the exam as a Non-attending student. |
| **Evaluation Criteria** | Evaluation criteria for Attending students and for Non-attending students<br>Project's deadlines are mandatory.<br>Partial projects or missed deadlines determine a partial evaluation which will contribute to the student's final mark.<br>The presentation of the final project is required to be admitted to the final exam. |
| **Required Readings** | • B. Munari, *Da cosa nasce cosa*, Editori Laterza, Bari 2018<br>• B. Munari, *Arte come mestiere,* Bari 2018<br>• B. Munari, *Good design*, Corraini Editore, Mantova 2007<br>• W. Lidwell, K. Holden, J. Butler, *Universal Principles of Design*, Rockport, Massachussets 2003<br>• T. Hauffe, *Design. A concise history*, Barron's 1996S.<br>• Micelli, *Futuro artigiano. L'innovazione nelle mani degli italiani*, Marsilio Editori, Venezia 2011<br><br>Subject Librarian: David Nikola Gebhardi, David.Gebhardi@unibz.it<br><br>and Ilaria Miceli, Ilaria.Miceli@unibz.it |
| **Supplementary Readings** | Recommended/suggested but not mandatory:<br><br>Design<br><br>• R. De Fusco, *Storia del design*, Editori Laterza 2009<br>• G. Castelli, P. Antonelli, F. Picchi, *La fabbrica del design*, |

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| | Skira Editore, Milano 2007<br>• A. Bassi, *Design anonimo in Italia. Oggetti comuni e progetto incognito*, Mondadori Electa 2007<br>• C. Anderson, *Makers. Il ritorno dei produttori*, Rizzoli Etas 2013<br><br>Designers<br><br>• AA.VV., *Less and More Product Design. The Design Ethos of Dieter Rams*, Gestalten, Berlin 2009<br>• M. Neuhart, J. Neuhart, *The story of Eames furniture*, Gestalten, Berlin 2015<br>• AA.VV., *Alvar Aalto Second Nature*, Catalogue, Vitra Design Museum, DZA Druckerei zu Altenburg GmbH, 2018<br>• C. Larcher, M. Martignoni, U. Schnitzer, *Design from the Alps 1920 2020*, Merano Arte, Scheidegger & Spiess AG, 2019<br>• D. Dardi, *Il design di Alberto Meda. Una concreta leggerezza*, Electa, Milano 2005<br>• E. Barber, J. Osgerby, *The design work of Edwar Barber and Jay Osgerby*, Rizzoli, New York 2011<br>• F. Böhm, *Konstantin Grcic Industrial Design*, Phaidon, London 2007<br>• J. Morrison, *Jasper Morrison. Everything but the Walls*, Lars Müller Publishers, Italy 2006<br>• N. Fukasawa, *Naoto Fukasawa*, Phaidon, New York 2007<br>• R. Bouroullec, E. Bouroullec, *Ronan and Erwan Bouroullec*, Phaidon, London 2003 |
| **Further Information** | Software used: Recommended/suggested but not mandatory:<br>Browser<br>• Safari, Chrome, Edge, Mozilla Firefox<br>Operating<br>• Mac OS: Pages, Keynote, Numbers<br>• Microsoft Office 365: Word, Excel, PowerPoint<br>• OpenOffice<br>Graphic - Photo - Vector<br>• Microsoft Foto / Windows (freeware)<br>• Foto / MacOS (freeware)<br>• Icecream Photo Editor / Windows (freeware)<br>• GIMP / Windows, MacOS, Linux (freeware)<br>• Inkskape / Windows, MacOS (freeware)<br>• Corel Draw / Windows, MacOS (15-day free trial)<br>• Adobe Photoshop / Windows, MacOS, Linux (7-day free trial)<br>• Illustrator / Windows, MacOS, Linux (7-day free trial)<br>• InDesign / Windows, MacOS, Linux (7-day free trial) |

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| | • Affinity Photo / Windows, MacOS, Linux (trial period)<br>2D - 3D<br>• Autocad / Windows, MacOS (freeware ver. Educational)<br>• Rhinoceros / Windows, MacOS, Linux (90-day free trial)<br>• Solidworks / Windows, MacOS (UNIBZ license)<br>• SolidEdge / Windows, MacOS (freeware ver. Educational)<br>Rendering<br>• Keyshot / Windows, MacOS<br>• Vray / Windows, MacOS |
| **Sustainable Development Goals (SDGs)** | Industry, innovation and infrastructure, Life on land, Climate action, Responsible consumption and production |