

**Syllabus**  
**Course description**

<b>Course title</b>	<b>Project Product Design 2a</b> <b>"ATELIERprojekte_SS22"</b>
<b>Course code</b>	97092
<b>Scientific sector</b>	Module 1: ICAR/13 Module 2: ICAR/13 Module 3: M-FIL/04
<b>Degree</b>	Bachelor in Design and Art (L-4)
<b>Semester</b>	SS22
<b>Year</b>	2 <sup>nd</sup> and 3 <sup>rd</sup>
<b>Credits</b>	19 (Module 1: 8 CP, Module 2: 6 CP, Module 3: 5 CP)
<b>Modular</b>	Yes
<b>Total lecturing hours</b>	180 (Module 1: 90, Module 2: 60, Module 3: 30)
<b>Total hours of self-study and/or other individual educational activities</b>	295 (Module 1: about 110, Module 2: about 90, Module 3: about 95)
<b>Attendance</b>	not compulsory but recommended
<b>Prerequisites</b>	To have passed the Product Design 1 project; to have certified the language level proficiency B1 in the 3 <sup>rd</sup> language in years following the first.
<b>Maximum number of students per class</b>	20
<b>Course description</b>	<p><i>The course belongs to the class "caratterizzante" (module 1), "di base" (module 2) and "affine integrativa" (module 3) in the curriculum in Design.</i></p> <p><b>Description Module 1 – Product Design:</b>  <b>(EN)</b> Generally a young designer who approaches the reality of the profession is not forced to wait for a company to give him a direct assignment but can, on his own initiative, come forward proposing new projects.</p> <p>However, he must have clear ideas and first of all identify his fields of interest and the sector in which he wishes to enter and then which companies he would like to collaborate with. He needs to develop a particular sensitivity to understand the different philosophies of the companies he is considering and to perceive the "gaps" within the existing collections.</p> <p>ATELIERprojekte_WS21/22aims to hone these skills and to tackle the necessary path step by step:</p> <ul style="list-style-type: none"> <li>• to define one's own field of intervention after a careful;</li> <li>• investigation into the world of objects and services that surround us;</li> <li>• understand how a company builds a collection, if and with which designers it collaborates and how it presents itself on the market;</li> <li>• perceive the "empty" spaces to fill in the collections/catalogues;</li> </ul>

- think and define a concrete project or service;
- visualize it through models of proportion, function or mock-up;
- prepare an appropriate presentation, also in writing.

Each student will have the task of defining his or her own theme and developing it during the semester.

The points from which to start can be the most varied: from the exploration of urban spaces to the reinterpretation of one's own personal environment. In any case, students will be encouraged to take a critical look at the reality in which they live.

This very open and free form of project is an exercise in self-employment that requires particular attention to the organization of one's work and a good and responsible management of one's time.

**(DE)** Ein junger Designer, der sich der Berufsrealität nähert, muss nicht darauf warten, dass ihm ein Unternehmen einen direkten Auftrag erteilt, sondern kann aus eigener Initiative neue Projekte vorschlagen. Er muss jedoch klare Vorstellungen haben und zunächst seine eigenen Interessensgebiete und den Bereich definieren, in dem er arbeiten sowie mit welchem Unternehmen er (fiktiv) zusammenarbeiten möchte. Er sollte eine besondere Sensibilität entwickeln, um die unterschiedlichen Philosophien/Kulturen der jeweiligen Unternehmen zu verstehen und "Lücken" innerhalb bestehender Kollektionen finden.

ATELIERprojekte\_WS21/22 zielt darauf ab, diese Fähigkeiten zu schärfen und den notwendigen Weg Schritt für Schritt in Angriff zu nehmen:

- festlegen des eigenen Arbeitsgebietes nach sorgfältiger Recherche im vielfältigen Angebot von Objekten und Dienstleistungen;
- verstehen, wie ein Unternehmen eine Kollektion aufbaut, ob und mit welchen Designern es zusammenarbeitet und wie es sich auf dem Markt präsentiert;
- wahrnehmen der offenen Bereiche, die in den verschiedenen Kollektionen/Katalogen noch zu besetzen wären;
- definieren eines konkreten Produktes oder Dienstleistung;
- dieses durch Proportions-, Funktions- oder Anschauungsmodelle zu visualisieren;
- aufbereiten einer effektiven Präsentation, auch in schriftlicher Form.

Studierende haben in ATELIERprojekte die Aufgabe, ein eigenes Thema zu definieren und im Laufe des Semesters zu entwickeln. Die Ausgangspunkte können dabei die unterschiedlichsten sein: von der Erkundung urbaner Räume bis hin zur Neuinterpretation der eigenen persönlichen Umgebung. In jedem Fall werden die Studierenden ermutigt, die Realität, in der sie leben, mit einem kritischen Auge zu beobachten.

Diese sehr offene und freie Form des Projekts ist eine Übung im

	<p>selbständigen Arbeiten, die besondere Aufmerksamkeit in der Organisation der eigenen Arbeit sowie ein gutes und verantwortungsvolles Management der eigenen Zeit erfordert.</p> <p><b>Description Module 2 – Digital Modelling</b>  <b>(EN)</b> 3D design is a universal language that connects a designer with manufacturers. This means that a designer must be able to read, understand and write the rules of 3D design. Digital modeling is not just programming; it is something much broader: it is intrinsic to the design itself and strongly linked to every phase of the creative process. Through exercises, case studies, lectures, workshops and manual modeling activities, students will learn to analyze their ideas in a mathematical way. With the aim of combining their creativity with the logical rules of 3D modeling.</p> <p><b>(IT)</b> La progettazione 3D è un linguaggio universale che permette di mettere in relazione un progettista/designer con le aziende produttrici. Questo significa che un progettista/designer deve essere in grado di leggere, comprendere e scrivere le regole della progettazione 3D. La modellazione digitale non è solo programmazione; ma è un qualcosa di molto più ampio: è intrinseca alla progettazione stessa e fortemente legata ad ogni fase del processo creativo. Tramite esercitazioni, casi studio, lezioni, workshop ed attività di modellazione manuale gli studenti impareranno ad analizzare le proprie idee in modo matematico. Con lo scopo di unire la propria creatività con le regole logiche e di modellazione 3D.</p> <p><b>Description Module 3 – Theories and languages of product design</b></p> <p><b>(EN) About designers’ daily work: structure, strategy, attitude (including aspects of attentiveness and connectedness)</b></p> <p>In designers’ daily work, a lot of aspects and activities have to be considered and realized, day by day. University usually doesn’t teach those aspects of practical necessities – i.e. how to approach potential clients, how to prepare and offer realistic cost estimates, how to move in the middle of different market situations, how to deal with ‘pitches’ (paid, unpaid), and so on.</p> <p>Integrated to the project ATELIERprojekte, this course offers both: explorations and answers to the mentioned questions, and – parallel to this – a step-by-step program regarding professional design process practices.</p>
<p><b>Specific educational objectives</b></p>	<p><b>Knowledge and understanding</b>  <b>Module 1</b></p> <p>Have acquired one’s own project methodology in the field of product design. This methodology includes the ability to oversee all phases of design, from the generation of ideas to the realisation of the finished project. Through the integrated</p>

	<p>teaching of project subjects and subjects of a technical, scientific and theoretical nature, graduates will be able to simultaneously address all these aspects and consider them as synonymous with the development of a project that is successful on a formal, technical, scientific and cultural level.</p>
	<p><b>Module 2</b></p> <p>The course aims to provide all the necessary skills to deal autonomously with a project in the field of product design, paying particular attention to the real feasibility of the idea. It will provide the necessary skills to learn the language of digital modelling and how it interacts with the creative process of a designer. In addition, the technical knowledge necessary to communicate with the language of digital modelling will be acquired.</p> <p><b>Module 3</b></p> <p>The course is designed for acquiring professional skills and knowledge in the framework of a general overview of scientific contents. The main objectives are:</p> <ul style="list-style-type: none"> <li>• the acquisition of essential theoretical knowledge (related to theories and languages of product design) so as to be able to carry out a project in the field of product design</li> <li>• the acquisition of basic knowledge so as to be able to look critically at their own work and to deal with the complexities of contemporary society</li> <li>• the acquisition of basic knowledge concerning purposeful theoretical subjects in the field of the overarching project topic</li> <li>• the acquisition of basic knowledge concerning the culture of design with specific reference to product design</li> <li>• the ability to capture and analyse contemporary cultural and social phenomena that characterize design and art</li> <li>• a theoretical and socio-cultural education that aims to acquire a solid cultural background where technical media skills are combined with a theoretical reflection</li> <li>• the ability to develop a good independent judgment, both in the critical evaluation of their work and in the ability to use the appropriate interpretive tools with respect to the contexts where they are going to apply their own design practice and / or to continue their studies, assessing also social and ethical aspects</li> <li>• the ability to communicate at a professional level and argue the reasons for their choices and justify them from a formal, technical, scientific and theoretical point of view</li> </ul>

<p><b>Lecturer</b></p>	<p><b>Module 1 – Product Design</b>  Kuno Prey  e-mail <a href="mailto:kuno.prey@unibz.it">kuno.prey@unibz.it</a>  tel. +39 0471 015 110, 335 29 69 67  webpage <a href="https://www.unibz.it/en/faculties/design-art/academic-staff/person/900-kuno-prey">https://www.unibz.it/en/faculties/design-art/academic-staff/person/900-kuno-prey</a></p>
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	<p><b>Module 2 – Digital Modelling</b>          Francesco Sommacal          e-mail francesco.sommacal@unibz.it          tel. +39 0471/015000          webpage <a href="https://www.unibz.it/en/faculties/design-art/academic-staff/person/43982-francesco-sommacal">https://www.unibz.it/en/faculties/design-art/academic-staff/person/43982-francesco-sommacal</a></p> <p><b>Module 3 – Theories and languages of product design</b>          Hans Leo Höger          e-mail hans.hoeger@unibz.it          tel. +39 0471/015194          webpage <a href="https://www.unibz.it/en/faculties/design-art/academic-staff/person/891-hans-leo-hoeger">https://www.unibz.it/en/faculties/design-art/academic-staff/person/891-hans-leo-hoeger</a></p>
<b>Scientific sector of the lecturer</b>	<p><b>Module 1:</b> Kuno Prey: ICAR/13  <b>Module 2:</b> Francesco Sommacal: ICAR/13  <b>Module 3:</b> Hans Leo Höger: M-FIL/04</p>
<b>Teaching language</b>	<p><b>Module 1:</b> German  <b>Module 2:</b> Italian  <b>Module 3:</b> English</p>
<b>Office hours</b>	<p><b>Module 1:</b> Mo – Tu: 12:00 – 14:00 by appointment; <b>Module 2:</b> Mo – Tu: 13:00 – 14:00 in order to avoid overlapping the exact time of the appointment will be arranged by email; <b>Module 3:</b> Wednesday 17 – 19 h</p>
<b>List of topics covered</b>	<p><b>Module 1</b>          Design of everyday objects for the home, office, person, travel, etc. Products to be produced in eco-sustainable materials that can be produced for the most part with production systems with low technological complexity.</p> <p><b>Module 2</b></p> <ul style="list-style-type: none"> <li>- how to move from an idea to the 3D modelling (sketches, form prototypes, digital creation)</li> <li>- digital modelling is an indispensable support of a creative process: <i>when, how and why?</i></li> <li>- digital modelling vs. craft modelling</li> <li>- how methods to use and how to design in 3 dimensions (use of the Rhinoceros software)</li> <li>- polygon mesh surface, nurbs surface and subD surface</li> <li>- program learning, with all the basic functions for objects-modelling</li> <li>- laser cutting, plotting techniques and rapid design: CNC and 3D printing</li> <li>- how to communicate ideas in an analytic and mathematical manner, using technical tables.</li> </ul> <p><b>Module 3</b>          The topics are organized along selected steps of design processes and professional day-by-day practices regarding, for instance: empathy (personal relationship to the project topic), inter- and transdisciplinarity (cultural engineering, storytelling), relevant examples / role models (context, character, content, methodology), WYSIWYG - What You See Is What You Get, impact of and quality in design projects</p>

<p><b>Teaching format</b></p>	<p><b>Module 1</b> Project work in the atelier.</p> <p><b>Module 2</b> Lectures, exercises, workshops, case studies.</p> <p><b>Module 3</b> Lectures, seminars, exercises, group work</p>
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<p><b>Expected learning outcomes</b></p>	<p><b>Disciplinary competence</b> <i>Knowledge and understanding</i></p> <ul style="list-style-type: none"> <li>- have acquired the basic technical, scientific and theoretical knowledge necessary to realise a project in the field of product design.</li> <li>- have acquired the basic knowledge necessary for the design profession.</li> <li>- have acquired the basic knowledge necessary for further Master's studies in all components of project culture as well as in technical, scientific and theoretical subjects.</li> <li>- The students will acquire basic skills that will allow them to shape their ideas in a mathematical way, starting from sketches, bidimensional drawings and 3D material models.</li> <li>- The students will acquire skills enabling them to face mathematical problems (with increasing difficulty), starting from the analysis and the understanding of real objects.</li> <li>- The students will also acquire basic knowledge of the main 3D virtual construction methods, with the final aim to be able to create mid-complexity objects, in an independent way.</li> <li>- The students will acquire basic skills that will enable them to communicate their ideas/projects in an analytical and mathematical, with the support of technical drawings.</li> <li>- The students will acquire basic knowledge of file management processes for laser cutting, CNC and 3D printing.</li> <li>- to have the ability to finalize the implementation of a project undertaken in the field of product design drawing on the basic knowledge acquired in the subjects of "Theories and Languages of Product Design"</li> <li>- to have the ability to grasp important phenomena that characterize today's society and to know how to look at these critically, also from a social and ethical perspective, and to develop appropriate solutions in terms of the proposal / response regarding the project</li> <li>- knowledge of historical and theoretical foundations of design</li> <li>- knowledge of relevant sociological, semiotic and anthropological aspects</li> <li>- know how to analyze (critically), define and contextualize their projects</li> </ul>
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- know how to apply methods of empirical research in the context of the project topic
- know how to present critical and planning analysis orally
- know how to present written critical and planning analysis
- develop a good independent judgment, both in the critical evaluation of their work and in the ability to use the appropriate interpretive tools with respect to the contexts where they are going to apply their own design practice and / or to continue their studies, assessing also social and ethical aspects
- communicate at a professional level and argue the reasons for their choices and justify them from a theoretical point of view

#### *Applying knowledge and understanding*

- use the basic knowledge acquired in the technical, scientific and theoretical fields to realise a mature project to recognise the main phenomena of contemporary.
- make use of the skills acquired during the course of study in the event of continuing studies in a Master's degree programme in the field of design and to develop them further.
- to use the basic knowledge acquired during the course of digital modeling to deal with projects in full autonomy from the logical / mathematical point of view
- be able to distinguish and recognize the degree of complexity referred to the 3D project
- to use in a conscious and critical way the digital modeling tools
- to use the skills acquired to create 2D technical tables in order to conceive their models in a professional manner
- to use the skills acquired to create 3D digital models in order to create printed and/or milled models
- the expected learning outcome is that students will have been enabled to demonstrate a systematic understanding of the topics covered by the course;
- a further expected learning outcome is that students will have developed conceptual insight and ability of analysis (focusing on research skills, theoretical and analytical methods and on how they are applied)
- the expected learning outcome is that students will have been enabled to apply their knowledge and understanding to those professional situations in which theoretical design expertise related to the thematic cluster of the project is necessary and required or, in any case, useful and inspiring

#### **Transversal competence and soft skills**

##### *Making judgements*

- Be able to make independent judgements for the purpose of developing their own design skills and in relation to all those decisions (technical, scientific and

theoretical) that are necessary to bring a project to completion.

- be able to understand and analyze their own ideas in a mathematical and logical way
- be able to understand when and why digital modelling becomes a tool to support and simplify design within their creative process.
- the expected learning outcome is that students will have been enabled to gather and interpret relevant sources, information and documentations from the fields of product design theory, with particular reference to the thematic project cluster (PD-D4), in the context of design projects or design study topics (e.g. in the concept and research state of projects);
- a good autonomy of judgment in the critical evaluation of their own work and in their ability to use correct interpretative methods in relation to the contexts in which they will apply their design practice and/or continue their studies, also considering ethical and social aspects.

#### *Communication skills*

- present an independently realised project in the field of product design in the form of a product or an service (model), orally as well as in writing in a professional manner.
- be able to communicate projects/objects in a clear and professional manner, with the use of 2D technical tables and 3D mathematical models
- be able to make use of digital modelling as support for rapid design and models
- be able to communicate projects/objects in a photo-realistic way.
- the expected learning outcome is that students will have been enabled to communicate to both specialist and non-specialist audiences clearly and unambiguously
  - with confidence and originality - information, ideas, problems and solutions related to questions and topics of product design theory (with particular reference to the thematic project cluster)

#### *Learning skills*

- have learned a design methodology at a professional level - in the sense of being able to identify, develop and realise solutions to complex design problems by applying the acquired knowledge in the technical, scientific and theoretical fields - in order to start a professional activity and/or continue their studies with a master's degree programme.
- have developed a creative attitude and learned how to enhance it and develop it according to their own inclinations.
- have acquired basic knowledge in theoretical, technical and scientific subjects as well as a study methodology suitable for continuing studies with a Master's degree programme.



	<ul style="list-style-type: none"> <li>- Acquire and improve your skills described in the “List of topics covered”.</li> <li>- the expected learning outcome is that students will have developed those learning skills that are necessary for them to continue to undertake successfully further studies of product design with a high degree of autonomy.</li> </ul>
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<p><b>Assessment</b></p>	<p><b>Module 1</b></p> <p>Presentation of the project: each candidate will present his work through graphic drawings, a model, photographs, a synthetic text and a concentrate of his work in a sixteenth. The design path, the final result and all the materials delivered will be evaluated. The presentation of the project will be public.</p> <p>Three days before the examination date the following documents must be delivered to the project assistant:</p> <ol style="list-style-type: none"> <li>1. construction drawings;</li> <li>2. model of proportions or functional model (possibly in 1: 1 scale);</li> <li>3. max. 3 photos that highlight the characteristics of the final elaborate format 10cm x 15cm, 72 dpi, RGB, jpg and 300 dpi, CMYK, tif;</li> <li>4. short summary text where the final paper is presented (max 500 characters, doc or rtf);</li> <li>5. the data need to be concentrated in a sixteenth in the A5 format of the design path and with the final result. The facsimile of the sixteenth will be delivered and explained to the students one month before the end of the project.</li> </ol> <p>NB: The timely delivery of all the materials being examined is essential for admission to the exam itself.</p> <p><b>Module 2</b></p> <p>The final assessment will be the result of work conducted during the whole semester. In particular the following will be evaluated:</p> <ul style="list-style-type: none"> <li>• The ability to self-express through technical presentations (2D Tables – 3D models);</li> <li>• The motivation and the commitment shown during the module and in the atelier;</li> <li>• The spirit of observation and the curiosity displayed during the semester.</li> <li>• the ability to develop functional ideas.</li> </ul> <p>Three days before the examination date the following documents must be delivered:</p> <ol style="list-style-type: none"> <li>1. technical tables (2D-construction drawings) of your project.</li> </ol> <p><b>Module 3</b></p> <p>The exam is included as integral part in the final presentations concerning the project PD-2a with particular reference - on one hand - to those contents that have been explored, presented</p>
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	<p>and discussed in the classroom and - on the other hand - to those ones documented in the digital Reserve Collection of "Theories and Languages of Product Design: Project 2a". The exams' evaluations will particularly focus onto the students' ability and originality concerning the integration of conceptual and theoretical topics and characteristics into their final presentations of the projects.</p>
<p><b>Assessment language</b></p>	<p>The same as the teaching language</p>
<p><b>Evaluation criteria and criteria for awarding marks</b></p>	<p><i>By exam's date, each student must upload on the Microsite of the faculty detailed documentation of the work done during the course.</i></p> <p><a href="http://portfolio.dsgn.unibz.it/wp-admin">http://portfolio.dsgn.unibz.it/wp-admin</a>  <i>Documentation is an integral part of the exam. The documentation must include visual documentation and an abstract of the project.</i></p> <p>The final assessment is based on the content of all the exercises according to the following criteria:</p> <p><b>Module 1</b>  The quality and clarity of the research, the creativity and the originality of the design concept, the quality and clarity of the design process, of the development and realization of the project such as the professionalism and consistency of the presentation and documentation.</p> <p>Also contributing to the final evaluation will be the initiative and the personal commitment in the atelier, in the research and the study and the participation in the project or the continuity, the attention and the curiosity demonstrated.</p> <p><b>Module 2</b></p> <ul style="list-style-type: none"> <li>- (25/100) participation, punctuality, spirit of observation and reasoning skills to solve technical problems</li> <li>- (25/100) ability to self-express through technical presentations (2D tables – 3D models)</li> <li>- (25/100) 2D-construction drawings of the project idea</li> <li>- (25/100) quality of the end of semester project in relation to the digital modelling module.</li> </ul> <p><b>Module 3</b></p> <ul style="list-style-type: none"> <li>- correctness of presented topics, concepts and theoretical contents/analysis/conclusions</li> <li>- clarity of presented topics, concepts and theoretical contents/analysis/conclusions</li> <li>- mastery of course-related language and terminology demonstration of knowledge and understanding</li> <li>- ability to summarize, evaluate, and establish relationships between topics (ability of contextualization) - skills in critical thinking</li> <li>- ability to summarize in own words</li> </ul>

<b>Required readings</b>	<p><b>Module 1:</b> -</p> <p><b>Module 2:</b> -</p> <p><b>Module 3:</b>  Michele De Lucchi, <i>My horrible wonderful clients</i>, Quodlibet Habitat, Macerata 2015   Alice Rawsthorn, <i>Design as an Attitude</i>, JRP/Ringier, Zurich 2018   Alex Newson, Eleanor Suggett, Deyan Sudjic, <i>Designer Maker User, the DESIGN MUSEUM</i> / Phaidon, London 2016</p>
<b>Supplementary readings</b>	<p><b>Module 1:</b> -</p> <p><b>Module 2:</b> -</p> <p><b>Module 3:</b>  Peter Erni, Martin Huwiler, Christophe Marchand, <i>Transfer</i> Lars Müller Publishers, Baden 2008</p>