Syllabus

Course Description

Course Title	Project Product Design 2.b
Course Code	97165
Course Title Additional	The Larch. Alpine Signature Tree. Ecosystem. Natural Resource.
Scientific-Disciplinary Sector	NN
Language	Italian; English; German
Degree Course	Bachelor in Design and Art - Major in Design
Other Degree Courses (Loaned)	
Lecturers	Dott. Giacomo Festi, Giacomo.Festi@unibz.it https://www.unibz.it/en/faculties/design-art/academic-staff/person/40076 Dipl. Des. Klaus Hackl, Klaus.Hackl@unibz.it https://www.unibz.it/en/faculties/design-art/academic-staff/person/37147
Teaching Assistant	Dott. Ada Keller
Semester	First semester
Course Year/s	2nd - 3rd
CP	19
Teaching Hours	90+60+30
Lab Hours	0
Individual Study Hours	295
Planned Office Hours	93
Contents Summary	The course provides students with knowledge and skills in the operational approaches of work, methods and theories of product design for various functional and experimental fields of application with a focus on digital production processes.
Course Topics	In the Winter Semester 2025/26, we will explore the European larch (Larix decidua) as the starting point for a research-based

	design project rooted in the ecological, material, and cultural realities of our Alpine region. As a defining tree of the subalpine zone, the larch is remarkably well adapted to harsh mountain conditions and demonstrates significant resilience in the face of climate change. Our investigation will focus on its unique qualities not only as a building material and a carrier of cultural identity, but also as a living organism embedded within complex ecological and (agri-)cultural systems. To deepen our understanding, we will undertake field trips to larch forests in Val Badia and to the ancient larches (Ur-Lärchen) of Val d'Ultimo. These excursions will offer first-hand insights into local forest types, silvicultural practices, timber processing, and the traditional uses of larch wood across the cultural landscape, architecture, and material culture of our region. A visit to the 2025 Venice Architecture Biennale - curated by Carlo Ratti under the theme Intelligens. Natural. Artificial. Collective. - will further situate our inquiry within broader design discourses on more-than-human intelligence, material agency, and collective creation. Through participant observation, design research, and material experimentation, we will develop proposals that creatively engage with the larch as both ecological actor and natural resource. Potential outcomes of the semester project include spatial interventions, architectural elements, indoor/outdoor furniture and products, as well as material-driven systems that explore not only the timber but also other parts of the larch ecosystem - such as resin, bark, needles, seeds, cones, roots, associated fungi, and the microhabitats the tree sustains. This project invites second and third-year students to approach product design as a critical and context-sensitive practice - one that engages deeply with ecological realities, living materials, and situated processes, while navigating the evolving relationship between nature, culture, and design.
Keywords	"Material Driven Design Approach, Research Driven Design Approach, Critical Design Approach, Methodological Design Approach, Process-Oriented Design Approach"
Recommended Prerequisites	To have passed the Project Product Design 1; to have certified the language level proficiency B1 in the course language in years following the first.

Propaedeutic Courses	
Teaching Format	Excursions and workshops, museum and company visits, frontal lectures, expert talks, exercises, individual and group revisions, guest critics.
Mandatory Attendance	not compulsory but recommended
Specific Educational Objectives and Learning Outcomes	Knowledge and understanding have acquired their own project methodology in the field of product design, from the phase of planning to the phase of realisation of the project. have acquired the basic practical and theoretical knowledge necessary to realise a project in the field of product design. have acquired the basic knowledge to be able to turn a critical eye to their own work and to deal with contemporary complexity. have acquired the basic knowledge necessary for further Master's studies in all components of project culture as well as in theoretical subjects. Applying knowledge and understanding plan, develop and realise a project in the field of product design. be able to finalize the creation of an accomplished project in the field of product design, thanks to the basic knowledge acquired in the practical, scientific and theoretical fields. recognise the main phenomena of contemporary society, to observe them critically, also from an ethical and social point of view, and to elaborate appropriate solutions at the level of a design proposal/response. 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 product design and to develop them further. Making judgements be able to make independent judgements for the purpose of developing their own design skills and in relation to all those decisions that are necessary to bring a project to completion. be able to make independent judgements, both in the critical evaluation of their own work and in their ability to use the right interpretative tools in those design contexts in which they will work 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 an installation, orally as well as in writing in a professional manner. to professionally communicate and substantiate one's own decisions and justify them from a formal and theoretical point of view. communicate and present your own project at a professional level in another language and correctly in a third language in addition to their own language Learning skills have learned a work methodology at a professional level - in the sense of being able to identify, develop and realise solutions to complex problems by applying the knowledge acquired in the practical and theoretical fields - in order to start a professional activity and/or continue their studies with a master's degree program. 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 and practical subjects as well as a study methodology suitable for continuing studies with a master's degree program.
Specific Educational Objectives and Learning Outcomes (additional info.)	
Assessment	Module 1 - Product Design: Assessment in the module product design is based on the students' personal motivation and curiosity, as well as on the design competencies acquired, reflected upon, and applied over the course of the semester. In addition, the quality, independence, coherence, and design-craftsmanship of the project outcomes (models and prototypes) are assessed, as demonstrated through visualisations, reasoning, and communicative presentation during individual consultations, group reviews, the midtermand exam presentations.

	Module 2 - Digital fabrication: The assessment will be based on: - the personal motivation, curiosity and overall design skills acquired, reflected and applied by the student during the whole semester. - the quality, autonomy, and coherence of the project results as visualised, argued and communicated during personal revisions and group reviews as well as a midterm presentation and the final exam presentation. - Before the exam the students needs to handle a documentation of the exercises and research done during the semester and the final technical drawings of the final project. Module 3 – Theories and languages of product design: The assessment will be based on: - the quality of the theoretical insertions in the project, through assignments and the writing of a final paper; - the personal engagement and participation to the different phases of the course. N.B. ALL THE STUDENTS ATTENDING THE EXAM AS NON-ATTENDING STUDENTS MUST AGREE UPON THE CONTENTS WITH THE TEACHER.
Evaluation Criteria	Module 1 and 2: The evaluation criteria - 100% in total - in product design will be divided as follows: A maximum of 20% can be awarded for the personal motivation, team spirit and design skills acquired and applied by the student

	during the semester. A maximum of 30% can be awarded for the quality and autonomy of the research and design work presented by the student in the midterm presentation. A maximum of 50% can be awarded to the student for the overall quality and autonomy of the semester project as developed, realised, visualised, argued, documented and communicated in the final exam presentation. For successful participation in the course, students must upload image and text materials relating to the design project developed during the semester to the faculty's showcase website no later than 4:00 p.m. on 23 January 2026. By 4:00 PM on 23 January 2026, , a PDF documentation of the semester project—an integral part of the final examination—must be created and uploaded to our TEAMS. This document should include visual material (photos and drawings), explanatory text, and a project abstract. Ideally, it should present the work in a format that integrates all three project modules. GOG exhibition: Before the exam, the course participants must actively engage in the planning and realisation of the GOG exhibition. Dismantling the exhibition after the examination session and cleaning the studio are also compulsory. Module 3 – Theories and languages of product design: Students will prepare a final document resuming both the research part, with the suggested theoretical integrations, and the product/service analysis and interpretation, according to the method proposed during the classes. That document/paper will be uploaded on the devoted Teams channel a few days before the final exam. Part of the final evaluation will also be dependent on the intermediate assignments, considered as a necessary step to approach the transversal knowledge of the course.

Required Readings	Modul 1 - Product Design: **General:** • Bridle J.: Ways of Being. Animals, Plants, Machines - The Search for a Planetary Intelligence. London (2022) • Burgat F.: Was ist eine Pflanze? Versuch über das pflanzliche Leben. Wien (2022) • Coccia E.: The Life of Plants. A Metaphysics of Mixture. Polity Press (2019) • Demandt A.: Der Baum. Eine Kulturgeschichte. Böhlau Köln (2014) • Halle, F.: In Praise of Plants. Timber Press Portland (2002) • Haslinger S., Erb K., Gingrich S.: Into the Woods. Annäherungen an das Ökosystem Wald. Spector Books (2024) • Küster H.: Der Wald. Natur und Geschichte. C.H. BECK Wissen (2019) • Mancuso S., Viola A.: Brilliant Green. The Surprising History and Science of Plant Intelligence. Island Press (2015) • Mancuso S.: The Revolutionary Genius of Plants. Atria Books (2018) • Mancuso S.: Tree Stories. How Trees Plant our World and Connect our Lives. Profile Books (2023) • Roloff A.: Der Charakter unserer Bäume. Ihre Eigenschaften und Besonderheiten. Stuttgart (2017) • Stone, Ch.: (1972) Should Trees Have Standing? Law, Morality, and the Environment. Oxford (2010) • Woelm E.: Mythologie, Bedeutung und Wesen unserer Bäume. Shaker Media (2016) • Wohlleben P.: Das geheime Leben der Bäume. Ludwig Verlag München (2015) • Wohlleben P.: Der lange Atem der Bäume. Ludwig Verlag München (2021) **Architectural / Design / Urbanistic:** • Aicher F., Hämmerle M. (eds.): Holz. Von der Materie zum Gebauten. Edition DETAIL München (2025) • Badnjar Gojnic A., Pujkilovic K., Lepik A. (eds.): Trees Time Architecture. Entwerfen im Wandel. Zürich (2025) • Boeri S.: Bosco Verticale. Morphology of a Vertical Forest. Milan (2025) • Escobar A.: Designs for the Pluriverse. Durham (2018) • Ferrer C., Hildebrand T., Martinez-Cañavate C.: Touch Wood. Material - Architektur - Zukunft. Zurich (2022)

	• Geisler T., Jain A. (eds.): After Abundance. A Speculation on Climate Change in the Alps. London (2018) • Herzog T., Natterer J., Schweitzer R., Volz M., Winter W. (eds.): Holzbau Atlas. Edition Detail München (2003) • Hudert M., Pfeiffer S. (eds.): Rethinking Wood. Future Dimensions of Timber Assembly. Birkhäuser Basel (2019) • Ludwig F., Schönle D.: Growing Architecture. How to Design and Build with Trees. Basel (2023) • Ratti C. (ed.).: Intelligens. Natural. Artificial. Collective. Venice Architecture Biennale (2025) • Wagenführ R.: Holzatlas. Hanser Verlag München (2022) **Specific:** • Asche R., Mischi G.: Larjei. 1000 Jahre Bewirtschaftung der Lärche im Campilltal Südtirol. San Martin de Tor (2007) • Autonome Provinz Bozen-Südtirol (Hrsg.): Waldtypisierung Südtirol. 2 Bände. Bozen (2010) • Schloeth R.: Die Lärche. Ein intimes Baumporträt. AT Verlag (1996) • Schuler A. (Hrsg.): Waldagenda 2030. Strategiepapier für die Südtiroler Forstwirtschaft. Bozen (2023) • Theler L.: Lärchengold und Gletscherweiss. Die Lärche - Lichtbaum der Berge. Weber Verlag (2024)
Supplementary Readings	
Further Information	
Sustainable Development Goals (SDGs)	Good health and well-being, Climate action, Sustainable cities and communities

Course Module

Course Constituent Title	Product Design
Course Code	97165A
Scientific-Disciplinary Sector	ICAR/13
Language	German
Lecturers	Dipl. Des. Klaus Hackl, Klaus.Hackl@unibz.it https://www.unibz.it/en/faculties/design-art/academic-staff/person/37147
Teaching Assistant	
Semester	First semester

CP	8
Responsible Lecturer	
Teaching Hours	90
Lab Hours	0
Individual Study Hours	110
Planned Office Hours	60
Contents Summary	The course should provide fundamentals, skills, working methods, theories and practices of Product Design in diverse functional and experimental scopes.
Course Topics	In the Winter Semester 2025/26, we will explore the European larch (Larix decidua) as the starting point for a research-based design project rooted in the ecological, material, and cultural realities of our Alpine region. As a defining tree of the subalpine zone, the larch is remarkably well adapted to harsh mountain conditions and demonstrates significant resilience in the face of climate change. Our investigation will focus on its unique qualities not only as a building material and a carrier of cultural identity, but also as a living organism embedded within complex ecological and (agri-)cultural systems. To deepen our understanding, we will undertake field trips to larch forests in Val Badia and to the ancient larches (Ur-Lärchen) of Val d'Ultimo. These excursions will offer first-hand insights into local forest types, silvicultural practices, timber processing, and the traditional uses of larch wood across the cultural landscape, architecture, and material culture of our region. A visit to the 2025 Venice Architecture Biennale - curated by Carlo Ratti under the theme Intelligens. Natural. Artificial. Collective. - will further situate our inquiry within broader design discourses on more-than-human intelligence, material agency, and collective creation. Through participant observation, design research, and material experimentation, we will develop proposals that creatively engage with the larch as both ecological actor and natural resource. Potential outcomes of the semester project include spatial interventions, architectural elements, indoor/outdoor furniture and products, as well as material-driven systems that explore not only the timber but also other parts of the larch ecosystem - such as resin, bark, needles, seeds, cones, roots, associated fungi, and the

	microhabitats the tree sustains. This project invites second and third-year students to approach product design as a critical and context-sensitive practice - one that engages deeply with ecological realities, living materials, and situated processes, while navigating the evolving relationship between nature, culture, and design.
Teaching Format	Excursions and workshops, museum and company visits, frontal lectures, expert talks, exercises, individual and group revisions, guest critics.
Required Readings	**General:** • Bridle J.: Ways of Being. Animals, Plants, Machines - The Search for a Planetary Intelligence. London (2022) • Burgat F.: Was ist eine Pflanze? Versuch über das pflanzliche Leben. Wien (2022) • Coccia E.: The Life of Plants. A Metaphysics of Mixture. Polity Press (2019) • Demandt A.: Der Baum. Eine Kulturgeschichte. Böhlau Köln (2014) • Halle, F.: In Praise of Plants. Timber Press Portland (2002) • Haslinger S., Erb K., Gingrich S.: Into the Woods. Annäherungen an das Ökosystem Wald. Spector Books (2024) • Küster H.: Der Wald. Natur und Geschichte. C.H. BECK Wissen (2019) • Mancuso S., Viola A.: Brilliant Green. The Surprising History and Science of Plant Intelligence. Island Press (2015) • Mancuso S.: The Revolutionary Genius of Plants. Atria Books (2018) • Mancuso S.: Tree Stories. How Trees Plant our World and Connect our Lives. Profile Books (2023) • Roloff A.: Der Charakter unserer Bäume. Ihre Eigenschaften und Besonderheiten. Stuttgart (2017) • Stone, Ch.: (1972) Should Trees Have Standing? Law, Morality, and the Environment. Oxford (2010) • Woelm E.: Mythologie, Bedeutung und Wesen unserer Bäume. Shaker Media (2016) • Wohlleben P.: Das geheime Leben der Bäume. Ludwig Verlag München (2015) • Wohlleben P.: Der lange Atem der Bäume. Ludwig Verlag München (2021) **Architectural / Design / Urbanistic:**

	• Aicher F., Hämmerle M. (eds.): Holz. Von der Materie zum Gebauten. Edition DETAIL München (2025) • Badnjar Gojnic A., Pujkilovic K., Lepik A. (eds.): Trees Time Architecture. Entwerfen im Wandel. Zürich (2025) • Boeri S.: Bosco Verticale. Morphology of a Vertical Forest. Milan (2025) • Escobar A.: Designs for the Pluriverse. Durham (2018) • Ferrer C., Hildebrand T., Martinez-Cañavate C.: Touch Wood. Material - Architektur - Zukunft. Zurich (2022) • Geisler T., Jain A. (eds.): After Abundance. A Speculation on Climate Change in the Alps. London (2018) • Herzog T., Natterer J., Schweitzer R., Volz M., Winter W. (eds.): Holzbau Atlas. Edition Detail München (2003) • Hudert M., Pfeiffer S. (eds.): Rethinking Wood. Future Dimensions of Timber Assembly. Birkhäuser Basel (2019) • Ludwig F., Schönle D.: Growing Architecture. How to Design and Build with Trees. Basel (2023) • Ratti C. (ed.).: Intelligens. Natural. Artificial. Collective. Venice Architecture Biennale (2025) • Wagenführ R.: Holzatlas. Hanser Verlag München (2022) **Specific:** • Asche R., Mischi G.: Larjei. 1000 Jahre Bewirtschaftung der Lärche im Campilltal Südtirol. San Martin de Tor (2007) • Autonome Provinz Bozen-Südtirol (Hrsg.): Waldtypisierung Südtirol. 2 Bände. Bozen (2010) • Schloeth R.: Die Lärche. Ein intimes Baumporträt. AT Verlag (1996) • Schuler A. (Hrsg.): Waldagenda 2030. Strategiepapier für die Südtiroler Forstwirtschaft. Bozen (2023) • Theler L.: Lärchengold und Gletscherweiss. Die Lärche - Lichtbaum der Berge. Weber Verlag (2024)
Supplementary Readings	

Course Module

Course Constituent Title	Digital fabrication
Course Code	97165B
Scientific-Disciplinary Sector	ICAR/13
Language	Italian
Lecturers	Dott. Ada Keller,

	Ada.Keller@unibz.it https://www.unibz.it/en/faculties/design-art/academic-staff/person/35600
Teaching Assistant	
Semester	First semester
CP	6
Responsible Lecturer	
Teaching Hours	60
Lab Hours	0
Individual Study Hours	90
Planned Office Hours	18
Contents Summary	The course should address the emerging world of digital fabrication from CAD to CAM and its impact on today's craft and mass production systems.
Course Topics	Within the broader investigation of the larch, this course takes a practice-based approach, where learning happens through making, researching, and collaborating simultaneously. Throughout the semester, students will engage with the larch tree in all its parts, through experiments and rapid prototyping sessions that explore its material qualities and the tools needed to transform it. At the same time, the "larch world" and its various production methods will be examined, investigating how different parts of the tree are used and how craft techniques and technologies intertwine in both traditional and contemporary contexts. In parallel, the studio will function as a shared working environment, where students define both personal methods for managing projects and collective guidelines for communication, collaboration, and the responsible sharing of space and resources. These different approaches will continuously inform and enrich one another, creating a dynamic learning process in which material exploration, technical research, and collective practice evolve side by side.
Teaching Format	Exercises and experimentations, workshops, case studies, short lectures and personal/group reviews.
Required Readings	Le indicazioni bibliografiche saranno fornite durante lo svolgimento

	del corso
Supplementary Readings	

Course Module

Course Constituent Title	Theories and languages of product design
Course Code	97165C
Scientific-Disciplinary Sector	M-FIL/05
Language	English
Lecturers	Dott. Giacomo Festi, Giacomo.Festi@unibz.it https://www.unibz.it/en/faculties/design-art/academic-staff/person/40076
Teaching Assistant	
Semester	First semester
CP	5
Responsible Lecturer	
Teaching Hours	30
Lab Hours	0
Individual Study Hours	95
Planned Office Hours	15
Contents Summary	The contents of the integrated theoretical module refer to the role and status of products in our material culture and, in particular, how products take part in networks of meanings: how they contribute to producing meanings, through their configuration given by shapes, colours, textures and consistencies, and how they are given meanings in the course of the everyday practices in which they take part. The module refers to research areas such as product semiotics, design semiotics, object semiotics, product language, product semantics.
Course Topics	The overall aim of the course is to improve the theoretical competences of the students, starting from the design practice, through successive extending loops of reflection. Conceptual distinctions will be presented and discussed starting from the facets of the project topic. Students will learn how to search for relevant scientific literature, how to approach and integrate it

	during the path of research and design. For this edition of the course, the material driven design approach requires a deepening of the wood perceptual qualities and its semantic potentials. Wood is at the centre of a recent ecological conceptualization, with a different understanding of the living and the entanglements of life, especially in the space of the forest. Thinkers like Coccia and Mancuso, as well as Tsing, will help considering the lesson of plants and vegetation for a new generation of multinaturalist designers, to use the recent proposal by Andrea Staid (2025). [Section 1] The ecological thinking and the test of wood, trees and forests: selected and commented readings. [Section 2] The semiotic dimension of the wood signature: exploring the perceptual qualities of larch from a theoretical point of view. [Section 3] Project self-analysis and academic reading integration: the complexity of interactions in a product development. Interface-subject and object, infrastices (Ingold), affordance and integration of practices: tools for analysis and interpretation.
Teaching Format	Frontal lecture, student presentations of essay and class discussion, guided assignments.
Required Readings	• Coccia, E. (2018). *La vita delle piante. Metafisica della mescolanza*. Bologna: Il Mulino; Tr. Eng. *The Life of Plants: A Metaphysics of Mixture*. Polity, 2019. • Festi, G. (2025). “Analyzing and interpreting a design object”. Handouts. Unpublished document. • Gan, E., & Tsing, A. (2018). “How Things Hold. A Diagram of Coordination in a Satoyama Forest”. *Social Analysis*, 62(4), 102–145. doi:10.3167/sa.2018.620406. • Knight, J. (1998). “The Second Life of Trees: Family Forestry in Upland Japan.” In *The Social Life of Trees: Anthropological Perspectives on Tree Symbolism*. • Kohn, E. (2013). *How Forests Think. Toward an Anthropology Beyond the Human*, Berkeley, Los Angeles, London: University of California Press. • Ingold, T. (2013). *Making. Anthropology, archaeology, art and architecture*. London & New York: Routledge. • Mancuso, S. (2018). *La Nazione delle Piante*. Torino: Bollati Boringhieri. • Spuybroek, L. (2012). *The Sympathy of Things: Ruskin and the Ecology of Design*. London: Bloomsbury Academic.
Supplementary Readings	