

-> [*Syllabus in lingua italiana*](#)

Syllabus Course description

Course title	Project PD – A1 Aria
Course code	97103
Scientific sector	Module 1: ICAR/13 disegno industriale Module 2: INF/01 informatica Module 3: M-DEA/01 discipline demoetnoantropologiche
Degree	Bachelor in Design and Art (L-4)
Semester	Winter semester 2018/19
Year	2 nd or 3 rd
Credits	22
Modular	Yes
Teaching language	Module 1: Italian Module 2: English Module 3: English
Total lecturing hours	180 (Module 1: 90, Module 2: 60, Module 3: 30)
Total hours of self-study and / or other individual educational activities	370 (Module 1: about 210, Module 2: about 65, Module 3: about 95)
Attendance	not compulsory but recommended
Prerequisites	<i>For students enrolled from 2012/13 onwards: have passed the WUP courses; for students enrolled from 2016/17 onwards: have passed the WUP project;</i>
Project description and specific educational objectives	<p>The course belongs to the class "caratterizzante" (module 1), "di base" (module 2) and "affine integrativa" (module 3) in the curriculum in Design.</p> <p>PROJECT DESCRIPTION <i>Course description module 1 – Product Design:</i> The Air or Ether is a mixture of various gaseous substances, but first of all, it is the empty space, that is immaterial only in appearance, in which we are immersed, where all the earthly creatures move like fish in the water. The invisible air that however makes us breathe or poisons us because it is full of harmful substances, the good air that regenerates us, the compressed air, the air that sustains an aeroplane, the air that makes a kite fly, the air like a transmitter of radio waves, of light....The air that belongs to everyone. According to the Western cosmogonies and the ancient traditions, air is the third of the four fundamental elements embodies purity and lightness and therefore the</p>

spirit, the soul.

In this semester, we will explore the physical potential of this element but also how it is involved in contemporary cultural processes.

In the first month (in the form of a contest with a final exhibition at the Talvera park) students will make an accurately functioning kite, thus tackling complex technical issues and using the most suitable materials. In the rest of the semester, each student will develop projects where he or she will freely interpret the element - Air with results that can be in form of speculative design but also oriented towards more traditional product design.

Educational objectives module 1 – Product Design:

- the acquisition of a design methodology in the field of product design
- the development of an independent and rigorous study pathway
- the acquisition of the essential basic knowledge to be able to carry out a project in the field of product design
- the acquisition of a design methodology in the field of product design from the initial idea phase to the final completion phase of the project
- the acquisition of the knowledge and understanding of:
 - design processes for industrial products for mass consumption
 - design processes for the visualisation of virtual and physical scenarios
- the acquisition of the basic knowledge concerning the culture of design in all its aspects

Course description module 2 – Digital Modelling:

The course will address digital modelling and digital fabrication techniques from CAD to CAM, through lectures and exercises (learning by doing). It will concentrate on how innovation can occur in experimental design practices through using digital technologies and making shifts between analog and digital. The course will ask students to experiment with the digital modeling and fabrication tools in their creative process. Besides fundamental knowledge about digital modeling and digital fabrication, the course will guide students to explore the theme “air” through design case-studies based on digital modelling, fabrication and physical computing.

Educational objectives Module 2 – Digital

Modelling:

- the acquisition of the essential basic knowledge to be able to carry out a project in the field of product design from idea to final prototyping through the use of digital modelling and digital fabrication techniques.
- the acquisition of the basic knowledge concerning the technical and scientific subjects in the field of product design with a special focus on digital modelling and fabrication.
- the acquisition of the knowledge and understanding of design processes for the visualisation of virtual and physical scenarios and models.
- the acquisition of the basic knowledge concerning the culture of design in all its aspects
- the acquisition of the knowledge and understanding of design processes starting from two-dimensional forms to more complex three-dimensional forms.
- the acquisition of the knowledge and understanding of analysing, designing and developing:
 - industrial projects for mass consumption
 - limited edition products in the craft industry

Course description module 3 – Cultural

Anthropology: The anthropological module will stimulate students to think at what is air from multiple perspectives. The module will also consider how to re-think what is design and what is the act of designing products when the designer has to interact with a natural elements, as air. At this regard, the module will illustrate the socio-cultural and political implications of working at the edges of nature and culture. In order to help students to develop their own design concept, the module will also introduce them to basic elements of anthropological methodology – ethnography.

Educational objectives module 3 – Cultural Anthropology:

- the acquisition of the essential basic knowledge to be able to carry out a project in the field of product design
- the acquisition of the basic knowledge so as to be able to look critically at their own work and to deal with the complexities of contemporary society
- the acquisition of the basic knowledge concerning the theoretical subjects
- the acquisition of the basic knowledge concerning the culture of design in all its aspects

Module 1	Product Design
Lecturer	Francesco Faccin office F1.06.a, e-mail: francesco.faccin@unibz.it , tel. +39 0471 015323, webpage https://www.unibz.it/en/faculties/design-art/academic-staff/person/37158-francesco-alessandro-faccin
Teaching language	Italian
Assistance/Office hours	Monday 13-19 Tuesday 9-18
List of topics covered	<ul style="list-style-type: none"> .Understanding of the topic .Turning the general topic into a personal briefing method from research to a final product .Creating a concept .Transforming a concept into a product .How to present a concept or a product in a convincing way .prototyping the idea
Teaching format	Lectures,micro-workshop,practical and theoretical,exercises,discussions
Module 2	Digital Modelling
Lecturer	Seçil Uğur Yavuz, office F1.06.b, e-mail: Secil.UgurYavuz@unibz.it , tel. +39 0471 015311, webpage https://www.unibz.it/en/faculties/design-art/academic-staff/person/36117-secil-ugur-yavuz
Scientific sector of the lecturer	ICAR/13
Teaching language	English
Office hours	Monday 09-18 Tuesday 9-18 Wednesday 9-18
List of topics covered	Product design / 3D Modeling / Digital fabrication (subtractive – additive) / makers movement / physical computing / Industrial design / technology and crafts / rapid prototyping / Digital design / digital craft/ Computational design / parametric design
Teaching format	Frontal lectures, exercises, discussions
Module 3	Cultural Anthropology
Lecturer	Roberta Raffaetà office F1.06.b, e-mail Roberta.Raffaeta@unibz.it , tel. +39 0471 015336, webpage https://www.unibz.it/en/faculties/design-art/academic-staff/person/37243-roberta-raffaeta
Teaching language	English
Office hours	Tuesday 12-13
List of topics covered	Anthropology of air, Design and natural elements, Design anthropology, Ethnography
Teaching format	The module will include both frontal lectures, individual

and group exercises and discussion

Learning outcomes

Learning outcomes for module 1 – Product Design:

- to have the ability to design, develop and implement a project in the field of product design
- know how to analyze, design and develop interiors
- know how to analyze, design and develop industrial projects for mass consumption
- know how to analyze, design and develop projects for the mechanical engineering industry
- know how to analyze, design and develop limited edition products in the craft industry
- know how to analyze, design and develop packaging projects from a product design and graphical perspective
- know how to analyze, design and develop projects concerning museums and exhibitions
- knowledge of the technical and scientific aspects of interior design
- knowledge of the technical and scientific aspects of the design of industrial products for mass consumption
- knowledge of the technical and scientific aspects of the design in the mechanical engineering industry
- knowledge of the technical and scientific aspects of the design of packaging
- know how to carry out packaging projects from a product design perspective
- know how to produce visualizations of virtual and physical scenarios for interior and exhibition design
- present at a professional level their own projects realized in the field of product design in the form of an installation, both oral and written
- communicate at a professional level and argue the reasons for their choices and justify them from a formal, technical point of view

Learning outcomes for module 2 – Digital Modelling:

- to have the ability to finalize the implementation of a project undertaken in the field of product design with the basic knowledge acquired in the technical and scientific subjects
- know how to produce 3D models and rapid prototyping
- know how to carry out drawing and/or CAD
- communicate at a professional level and argue the reasons for their choices and justify them from a formal, technical point of view
- Know how to coordinate the prototyping phase from

	<p>2D drawing to prototyping.</p> <ul style="list-style-type: none"> • knowledge of the technical and scientific aspects in the design of visualizations of virtual and physical scenarios and models. • know how to carry out the design process and its steps in the new product development based on digital technologies. • Know how to choose and utilize materials, digital fabrication tools and computer softwares in product design process. <p><i>Learning outcomes for module 3 – Cultural Anthropology:</i></p> <ul style="list-style-type: none"> • to have the ability to finalize the implementation of a project undertaken in the field of product design with the basic knowledge acquired in the theoretical subjects • to have the ability to grasp the main 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 of the project • knowledge of the important sociological, semiotic and anthropological aspects • know how to apply methods of empirical research in the socio-cultural sciences • know how to present critical and planning analysis orally • know how to present written critical and planning analysis • know how to apply the research methods and results in the project to the various areas of the project itself • 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 the 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.
--	---

<p>Assessment</p>	<p><i>Assessment details for module 1 – Product Design:</i> The final exam consist of a documentation of the project developed during the semester. The student is asked to present the project with the following documentation: . screen presentation . complete printed documentation of the project (a</p>
--------------------------	---

	<p>booklet will be handed at the faculty secretariat the day before the exam</p> <ul style="list-style-type: none"> .a model . material that will be defined with the students during the course <p>Assessment details for module 2 – Digital Modelling: Students will be asked to document their design process of each assigned exercise as a short presentation. A final discussion will be done based on the short presentation that reflects a synthesis of the skills learned through the Digital Modelling Module.</p> <p>Assessment details for module 3 – Cultural Anthropology: Intermediate evaluation: assigned tasks as agreed during the course (tasks such as article or ethnographic material presentation). Final evaluation: development of an anthropology booklet where students will have to describe the social-anthropological significance and rationale of their project.</p>
Assessment language	The same as the teaching language
Evaluation criteria and criteria for awarding marks	<p><i>The evaluation of the single modules does not result in three separate marks, but will add up to the overall project evaluation. There is only one final overall mark for the project which is agreed by the three professors, who evaluate the project according to the following criteria:</i></p> <p>Evaluation criteria and criteria for awarding marks for module 1 – Product Design: Process and implementation of the project Relation and understanding of the given brief Final object or research Model Presentation</p> <p>Evaluation criteria and criteria for awarding marks for module 2 – Digital Modelling: Students will be evaluated on the ability of using the 3D modelling and digital fabrication skills learned through lectures and exercises.</p> <p>Evaluation criteria and criteria for awarding marks for module 3 – Cultural Anthropology: The quality and depth of students’ engagement with the socio-anthropological aspects of their product will be evaluated.</p>
Required readings	Module 1 – Product Design:

	<p>-</p> <p>Module 2 – Digital Modelling:</p> <p>-</p> <p>Module 3 – Cultural Anthropology:</p> <p><i>Dourish, P., (2014), Reading and Interpreting Ethnography, in J., W. eds., Ways of Knowing in HCI pp. 1-23, New York, Springer.</i></p>
<p>Supplementary readings</p>	<p>Module 1 – Product Design:</p> <p>-</p> <p>Module 2 – Digital Modelling:</p> <ul style="list-style-type: none"> • Lipson, H. and Kurman, M. (2013) Fabricated: The New world of 3D Printing, John Wiley & Sons Inc • Troika (2008) Digital by design: crafting technology for products and environments, Thames & Hudson. • Johnston L. (2015) Digital Handmade Craftsmanship and the New Industrial Revolution, Thames & Hudson. • Openshaw J. (2015) Postdigital Artisans: Craftsmanship with a New Aesthetic in Fashion, Art, Design and Architecture, Frame. <p>Module 3 – Cultural Anthropology:</p> <ul style="list-style-type: none"> • Ingold, T., (2012), The Atmosphere, Chiasmi International, 14, pp. 75-87 • Ingold, T., Hallam, E., (2016), Making and growing: an introduction, in Hallam, Ingold eds., Making and growing. Anthropological studies of organisms and artefacts, London, Routledge. • Ingold, T., (2007), Materials against materiality, Archaeological Dialogues, 14, 1, pp. 1-16 • Praet, I., (2017), Astrobiology and the Ultraviolet World, Environmental Humanities, 9, 2, pp. 378-397 • Clarke, A.J. (2011) The anthropological object in design: from Victor Papanek to Superstudio, In Clarke, A.J. (ed.) Design Anthropology, Springer, Wien • Hunt, J. (2011) Prototyping the social: temporality and speculative futures at the intersection of design and culture, pp. 33- 44, In Clarke, A.J. (ed.) Design Anthropology, Springer, Wien

Syllabus

Descrizione del corso

Titolo del corso	PROGETTO PD – A1 Aria
Codice del corso	97103
Settore scientifico disciplinare del corso	Modulo 1: ICAR/13 disegno industriale Modulo 2: INF/01 informatica Modulo 3: M-DEA/01 discipline demoeetnoantropologiche
Corso di studio	Bachelor in Design and Art (L-4)
Semestre	Semestre invernale 2018/19
Anno del corso	2°, 3°
Crediti formativi	22
Modulare	Si
Numero totale di ore di lezione	180 (Modulo 1: 90, Modulo 2: 60, Modulo 3: 30)
Monte ore totale di studio individuale o di altre attività didattiche individuali inerenti	370 (Modulo 1: circa 210, Modulo 2: circa 65, Modulo 3: circa 95)
Corsi propedeutici	<i>Per studenti immatricolati a partire dall'a.a. 2012/13: avere superato i corsi wup; per gli studenti immatricolati a partire dall'a.a. 2016/17: aver superato il progetto wup.</i>
Frequenza	non obbligatoria ma raccomandata
Descrizione progetto ed obiettivi formativi specifici: modulo 1 – product design	<p>Il corso si inserisce nell'area di apprendimento dei corsi "caratterizzante" (modulo 1), "di base" (modulo 2) e "affini integrativa" (modulo 3) del curriculum in Design.</p> <p>DESCRIZIONE DEL PROGETTO <i>Descrizione del corso modulo 1 – product design</i></p> <p>L'aria o Etere è un miscuglio gassoso di varie sostanze ma è prima di tutto lo spazio vuoto, solo apparentemente immateriale, nel quale siamo immersi, dove tutte le creature terrestri si muovono come pesci nell'acqua. L'aria invisibile ma che ci fa respirare o che ci intossica perché carica di sostanze nocive, l'aria buona che ci rigenera, l'aria compressa, l'aria che sostiene un aereo, che fa volare un aquilone, l'aria come veicolo di onde radio, di luce.... L'aria che è di tutti.</p> <p>Terzo dei quattro elementi fondamentali secondo le cosmogonie occidentali e le tradizioni dell'antichità, incarna purezza e leggerezza e quindi lo spirito, l'anima. Esploreremo nel semestre le potenzialità fisiche di questo elemento ma anche quelle simboliche e come è coinvolta nei processi culturali contemporanei. Nel primo mese (sotto forma di contest con mostra finale al parco del</p>

	<p>Talvera) gli studenti dovranno realizzare un aquilone perfettamente funzionante e funzionale affrontando così questioni tecniche complesse e dovendo scegliere i materiali migliori. Nei rimanenti mesi ogni studente sarà impegnato in progetti dove liberamente dovrà interpretare questo elemento con risultati che potranno essere di natura speculativa ma anche orientati al product design più tradizionale.</p> <p>Obiettivi formativi modulo 1 – product design:</p> <ul style="list-style-type: none"> • acquisire una metodologia progettuale nel campo del design di prodotto • sviluppo di un percorso autonomo e rigoroso • acquisire le conoscenze di base necessarie alla realizzazione di un progetto nel campo del design di prodotto • acquisire una metodologia progettuale nel campo del design di prodotto, dalla fase di ideazione alla fase di realizzazione del progetto • acquisire la conoscenza e comprensione dei: <ul style="list-style-type: none"> • processi del design di arredamento • processi del design di prodotti industriali di consumo di massa • processi del design per la visualizzazione di scenari virtuali e fisici • acquisizione delle conoscenze di base relative alla cultura di progetto in tutte le sue componenti.
--	---

Modulo 1	Product design
Docente	Francesco Faccin office F1.06.a, e-mail francesco.faccin@unibz.it , tel. +39 0471 015323, webpage https://www.unibz.it/en/faculties/design-art/academic-staff/person/37158-francesco-alessandro-faccin
Lingua ufficiale del corso	Italiano
Assistenza/Orario di ricevimento	<i>Lunedì 17-18</i>
Lista degli argomenti trattati	<i>.L'Aria e l'antropologia .L'Aria e il design. L'elemento Aria come punto di partenza per riflessioni sull'ambiente, l'industria, la leggerezza .Il design oltre l'industria, come chiave di lettura per interpretare la contemporaneità.</i>
Attività didattiche previste	Lezioni frontali Video e film Conferenze skype con esperti Esperimenti
Modulo 2	-> vedi syllabus in lingua inglese

Modulo 3	-> vedi syllabus in lingua inglese
Risultati di apprendimento attesi	<p><i>Risultati di apprendimento attesi relativi al modulo 1 – product design:</i></p> <ul style="list-style-type: none"> • essere in grado di ideare, sviluppare, realizzare un progetto nel campo del design di prodotto • sapere analizzare, ideare e sviluppare progetti di arredamento • sapere analizzare, ideare e sviluppare progetti industriali per il consumo di massa • sapere analizzare, ideare e sviluppare progetti per l'industria meccanica • sapere analizzare, ideare e sviluppare prodotti in serie limitata nell'ambito dell'artigianato • sapere analizzare, ideare e sviluppare progetti d'imballaggio nei suoi aspetti di prodotto e di grafica • sapere analizzare, ideare e sviluppare progetti curatoriali ed espositivi • conoscenza degli aspetti tecnico-scientifici del design di arredamento • conoscenza degli aspetti tecnico-scientifici del design di prodotti industriali di consumo di massa • conoscenza degli aspetti tecnico-scientifici del design per l'industria meccanica • conoscenza degli aspetti tecnico-scientifici del design per il packaging • sapere realizzare progetti d'imballaggio nei suoi aspetti di prodotto e di grafica • sapere realizzare visualizzazioni di scenari virtuali e fisici per il design degli interni ed espositivi • presentare ad un livello professionale un proprio progetto realizzato nel campo del design di prodotto, della comunicazione visiva e/o delle arti visive in forma di installazione, oralmente e scritto • comunicare e argomentare ad un livello professionale le ragioni delle proprie scelte e motivarle dal punto di vista formale, tecnico, scientifico e teorico.
Metodo d'esame	<p><i>Metodo d'esame relativo al modulo 1 – product design:</i></p> <p>Lo studente dovrà presentare il risultato del proprio lavoro con una discussione verbale e mostrando modelli e tavole di progetto.</p>
Lingua dell'esame	corrisponde alla lingua d'insegnamento
Criteri di misurazione e criteri di attribuzione del voto	<p><i>La valutazione dei singoli moduli non costituisce un voto a sé stante, ma è parte integrante della votazione complessiva del progetto. Il voto finale del progetto è unico ed è definito sulla base del coordinamento tra i tre</i></p>

	<p><i>docenti che valutano il progetto secondo questi criteri:</i></p> <p><i>Criteri di misurazione e criteri di attribuzione del voto relativi al modulo 1 – product design:</i></p> <ul style="list-style-type: none"> • capacità analitica e di osservazione dello studente • completezza e coerenza delle idee progettuali • chiarezza nel presentare il processo che ha condotto alle scelte progettuali • caratteristiche tecnico-formali degli elaborati
<p>Bibliografia fondamentale</p>	<p><i>Modulo 1 – product design:</i></p> <p>-</p>
<p>Bibliografia consigliata</p>	<p><i>Modulo 1 – product design:</i></p> <p>-</p>