Syllabus
Course description

Course title	**Descriptive Geometry DES**
Course code	97127
Scientific sector	MAT/03
Degree	Bachelor in Design and Art (L-4)/ Major in Art
Semester	Winter semester 2021/22
Year	3rd
Credits	6
Modular	No

Total lecturing hours	30
Total hours of self-study and/ or other individual educational activities	about 90
Attendance	not compulsory but recommended
Prerequisites	none
Maximum number of students per class	

Course description	*The course belongs to the class "di base" in the curriculum in Art.* The course will provide the basic tools for conceptual sketching, free hand geometrical drawing and perspective skills, quick free hand 3D drawings, and rendering (how shadows, surfaces and colors change and affect shapes and composition). The student will be encouraged to understand the nature of an artifact analyzing it through a sketching process.
Specific educational objectives	**Knowledge and understanding** - have acquired their own methodology in the field of representation and visualization of their future projects in descriptive Geometry.
	The course aims to provide a theoretical and practical method for/to: -Knowledge of the basic tools and skills for free hand drawings; -Analysis of geometrical and mathematical models applied to the design field (perspective, axonometric projection, orthogonal projection, surface, shadows, lights); -Build a working method and develop a personal language; -Gain the ability to represent, communicate and present an artifact in all its aspects.

Lecturer	Rigoberto Arambula Lara e-mail Rigoberto.Arambula@unibz.it Webpage https://www.unibz.it/en/faculties/design-art/academic-staff/person/32793-rigoberto-arambula-lara
Scientific sector of the lecturer	MAT/03
Teaching language	English
Office hours	On Thursday from 17:30 onward
List of topics covered	- Standards and tools for technical and free hand drawings (ISO, scale standards, ergonomics and freehand tools) Signs and lines - Proportions - Orthogonal projection - Axonometric projection - Perspective (one point, two and three points view) - Lights and shadows - Exploded view - Palette and color - Storytelling: the importance of visual design, texts, colors and details in a project presentation
Teaching format	Frontal lectures, individual and group exercises, personal research and projects. The lectures consist in theoretical (introducing some topics through visual references, technical contents and case histories) and practical activities

Expected learning outcomes	**Disciplinary competence** *Knowledge and understanding* - have acquired the basic technical knowledge necessary to visualize a project in the field of descriptive Geometry. - 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 – with a particular attention to the project of descriptive Geometry *Applying knowledge and understanding* - use the basic knowledge acquired in technical fields to realise a mature project. - 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/art and to develop them further. **Transversal competence and soft skills** *Making judgements*

	- Be able to make independent judgements with the purpose of developing their own design skills and in relation to the technical and scientific decisions that are necessary to bring a project of descriptive Geometry to completion. *Communication skills* - present an independently realised project in the field of descriptive Geometry, orally as well as in writing in a professional manner. *Learning skills* - have learned a methodology at a professional level - in the sense of being able to identify, develop and realise solutions by applying the acquired knowledge in the technical, fields, in the field of descriptive Geometry - 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 the technical subject of descriptive Geometry as well as a study methodology suitable for continuing studies with a Master's degree programme.

Assessment	*By the exam's date, each student must upload on the Microsite of the faculty detailed documentation of the work done during the course.* *http://portfolio.dsgn.unibz.it/wp-admin* *Documentation is an integral part of the exam. The documentation must include visual documentation and an abstract of the project.* 1-Every student must present a portfolio of given exercises. The contents will be revised and discussed during the exam in order to test knowledge, skills and comprehension of geometric structures and topological varieties. 2-Students will present an individual/group research and analysis of an existing object of design, in order to apply and describe it using the skills learned during the course.
Assessment language	The same as the teaching language
Evaluation criteria and criteria for awarding marks	The final assessment is based on the content of all the exercises according to the following criteria: The final mark amounts to the sum of marks related to intermediate and final assignments:

	- Intermediate assignments: the sum of their marks weight about 60% of final mark; - Final assignment: weights about 40% of final mark Students must achieve and be able to apply the following skills: Relevant for the portfolio review: -comprehension of theoretical and practical topics, related to geometry and its correct application to the assignments; -Ability in drawing techniques, composition, portfolio presentation and clarity of contents; -Respect of the deadline. Relevant for the project presentation: -Ability in team working; -Ability to explain personal projects in a professional way; -Respect of the deadline

Required readings	Didactical texts and materials will be provided during the lessons. - Geometria descrittiva Vol. 1-2 (Città Studi) - Riccardo Migliari
Supplementary readings	- Design as Art - Bruno Munari - Cromorama (Einaudi) - R. Falcinelli - Lezioni di Disegno (Rizzoli) - Enzo Mari - Gli elementi del disegno (Adelphi) - John Ruskin