Syllabus

Descrizione corso

Titolo insegnamento	Laboratorio di Disegno tecnico - CAD
Codice insegnamento	42614
Titolo aggiuntivo	
Settore Scientifico-Disciplinare	NN
Lingua	Inglese
Corso di Studio	Corso di laurea professionalizzante in Tecnologie del Legno
Altri Corsi di Studio (mutuati)	
Docenti	prof. Yuri Borgianni, Yuri.Borgianni@unibz.it https://www.unibz.it/en/faculties/engineering/academic-staff/person/35189 dr. Aurora Berni, Aurora.Berni@unibz.it https://www.unibz.it/en/faculties/engineering/academic-staff/person/42284
Assistente	
Semestre	Secondo semestre
Anno/i di corso	1
CFU	3
Ore didattica frontale	0
Ore di laboratorio	42
Ore di studio individuale	33
Ore di ricevimento previste	
Sintesi contenuti	The course's objective is to allow students to acquire basic practice for the use of different CAD systems in different industrial contexts (product development, architecture, design of wood buildings and items) and in relation to different scopes (modelling, production of technical drawing documentations, graphical illustration).

Argomenti dell'insegnamento	• 2D CAD systems • Parametric 3D CAD systems for the modelling of industrial products • 3D CAD systems for graphics and application in the building industry • Interactions among different CAD environments
Parole chiave	technical drawing; architectural drawing; 2D CAD; 3D CAD; drafting
Prerequisiti	-
Insegnamenti propedeutici	
Modalità di insegnamento	Exercises, tutorials
Obbligo di frequenza	Attendance is not compulsory but strongly recommended
Obiettivi formativi specifici e risultati di apprendimento attesi	Knowledge and understanding 1) Use of CAD systems to comply with the formalized representation standards of the technical drawing 2) Functioning logic of CAD systems 3) Appropriateness of representations for different domains Applying knowledge and understanding 4) applying drawing standards correctly 5) representing a technical system accurately in a CAD environment 6) choosing the correct system for technical documentation and modelling Making judgements 7) choosing a specific representation method in terms of clarity, completeness and non-ambiguity 8) evaluating pros and cons of alternative paths to build a geometry in more 3D CAD systems. Communication skills 9) using the appropriate terms in the course's discipline Learning skills 10) Ability to autonomously extend the knowledge acquired during the course by testing functionalities in CAD software that have not been explained by the lecturers

Obiettivi formativi specifici e risultati di apprendimento attesi (ulteriori info.)	-
Modalità di esame	The exam requires the elaboration of two separate CAD projects to be agreed with the lecturer and delivered one week before the official start of the session. The two CAD projects are aimed at the modelling and representation of a) simple industrial products; b) buildings or parts thereof. The exam is evaluated as pass/no pass
Criteri di valutazione	The decision to pass students is based on the outcomes and assessment of the CAD projects, markedly in terms of • the capability of representing geometries correctly (1, 3, 4, 5, 7); • the ability to use and justify the choice of CAD systems (2, 5, 6), as well as the correctness and clarity of drawing choices (8). The item 10, not mentioned in the assessment procedure, will be monitored thanks to the indication of useful sources. The item 9 will be trained and verified in the matching course "Technical Drawing – CAD". Formative assessment will take place during the course, as some hours will be dedicated to exercises where students will be supervised by the lecturers and given feedback. Office hours, especially those requested by the students to monitor the progress of the project development, will fundamentally contribute to formative assessment.
Bibliografia obbligatoria	Handouts of the course (especially in its initial part) supplemented by excerpts of selected books and Internet websites.
Bibliografia facoltativa	-
Altre informazioni	The software applications used for training are AutoCAD, SolidWorks, Rhinoceros
Obiettivi di Sviluppo Sostenibile (SDGs)	Innovazione e infrastrutture, Istruzione di qualità