

## COURSE DESCRIPTION – ACADEMIC YEAR 2023/2024

<b>Course title</b>	<b>Laboratory of Technical Drawing - CAD</b>
<b>Course code</b>	42614
<b>Scientific sector</b>	-
<b>Degree</b>	Bachelor in Wood Technology (L-P03)
<b>Semester</b>	2
<b>Year</b>	1
<b>Credits</b>	3
<b>Modular</b>	No
<b>Total lecturing hours</b>	-
<b>Total lab hours</b>	42
<b>Attendance</b>	Highly recommended
<b>Prerequisites</b>	-
<b>Course page</b>	Teams channel reachable through this <a href="#">link</a>
<b>Specific educational objectives</b>	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).
<b>Lecturer</b>	<a href="#">Yuri Borgianni</a>
<b>Contact</b>	L5-03, <a href="mailto:yuri.borgianni@unibz.it">yuri.borgianni@unibz.it</a> , +39 0471 017821
<b>Scientific sector of lecturer</b>	ING-IND/15
<b>Teaching language</b>	English
<b>Office hours</b>	From Monday to Friday, upon email request
<b>Lecturing Assistant (if any)</b>	Aurora Berni
<b>Contact LA</b>	<a href="mailto:aurora.berni@unibz.it">aurora.berni@unibz.it</a>
<b>Office hours LA</b>	From Monday to Friday, upon email request
<b>List of topics</b>	<ul style="list-style-type: none"> <li>• 2D CAD systems</li> <li>• Parametric 3D CAD systems for the modelling of industrial products</li> <li>• 3D CAD systems for graphics and application thereof in the building industry</li> <li>• Interactions among different CAD environments</li> </ul>
<b>Teaching format</b>	Exercises, tutorials
<b>Learning outcomes</b>	<p>Knowledge and understanding</p> <ol style="list-style-type: none"> <li>1) Use of CAD systems to comply with the formalized representation standards of the technical drawing</li> <li>2) Functioning logic of CAD systems</li> <li>3) Appropriateness of representations for different product typologies</li> </ol> <p>Applying knowledge and understanding</p> <ol style="list-style-type: none"> <li>4) applying drawing standards correctly</li> </ol>

	<p>5) representing a technical system accurately in a CAD environment</p> <p>6) choosing the correct system for technical documentation and modelling</p> <p>Making judgements</p> <p>7) choosing a specific representation method in terms of clarity, completeness and non-ambiguity</p> <p>8) evaluating pros and cons of alternative paths to build a geometry in a 3D CAD.</p> <p>Communication skills</p> <p>9) using the appropriate terms in the course's discipline</p> <p>Learning skills</p> <p>10) Ability to autonomously extend the knowledge acquired during the study course by reading and understanding</p> <p>11) Learning advanced CAD functions autonomously also thanks to sources that support troubleshooting and online guides</p>
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<b>Assessment</b>	The exam requires the elaboration 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.
<b>Assessment language</b>	English
<b>Assessment Typology</b>	Monocratic
<b>Evaluation criteria and criteria for awarding marks</b>	<p>The projects's assessment procedure evaluates</p> <ul style="list-style-type: none"> <li>the capability of representing geometries correctly (1, 3, 4, 5, 7);</li> <li>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);</li> </ul> <p>Items 10 and 11, 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"</p>

<b>Required readings</b>	Handouts of the course (especially in its initial part) supplemented by excerpts of selected books and Internet websites.
<b>Supplementary readings</b>	-
<b>Software used</b>	AutoCAD, SolidWorks, Rhino