Syllabus

Kursbeschreibung

Titel der Lehrveranstaltung	Grundlagen des technischen Zeichnens
Code der Lehrveranstaltung	42199
Zusätzlicher Titel der Lehrveranstaltung	
Wissenschaftlich-disziplinärer Bereich	IIND-03/B
Sprache	Englisch
Studiengang	Bachelor in Industrie- und Maschineningenieurwesen
Andere Studiengänge (gem. Lehrveranstaltung)	
Dozenten/Dozentinnen	Prof. Yuri Borgianni, Yuri.Borgianni@unibz.it https://www.unibz.it/en/faculties/engineering/academic-staff/person/35189
Wissensch. Mitarbeiter/Mitarbeiterin	
Semester	Zweites Semester
Studienjahr/e	1
KP	3
Vorlesungsstunden	22
Laboratoriumsstunden	8
Stunden für individuelles Studium	45
Vorgesehene Sprechzeiten	9
Inhaltsangabe	The goal of the course is to illustrate the main rules to be followed in the technical drawing for representation of parts, which is of fundamental importance for communication among parties in mechanical, engineering and manufacturing companies.
Themen der Lehrveranstaltung	- Lines used in technical drawing according to standards - Orthographic projections

	- Sections - Dimensioning - Tolerances and roughness - Introduction to mechanical components
Stichwörter	technical drawing; standards; projections; sections; dimensioning; tolerances
Empfohlene Voraussetzungen	-
Propädeutische Lehrveranstaltungen	
Unterrichtsform	The course includes classroom lectures in which the topics are presented by the lecturer through digital presentations (uploaded slides) and the frequent support of the blackboard. The practical exercises will be carried out in a paper-based fashion.
Anwesenheitspflicht	Attendance is not compulsory
Spezifische Bildungsziele und erwartete Lernergebnisse	Knowledge and understanding 1) fundamental rules and standards of the technical drawing 2) drafting of parts through the use of representation methods and dimensioning 3) tolerances and errors Applying knowledge and understanding 4) interpretation of a solid based on necessary views and sections 5) applying drawing standards correctly 6) representing a part accurately Making judgements 7) autonomously choosing (and justifying the choice of) a specific representation method in terms of, e.g. clarity, completeness and

	non-ambiguity 8) identifying the critical dimensions in the representation of a part Communication skills 9) using the appropriate terms in the field of technical drawing Learning skills 10) ability to autonomously extend the knowledge acquired during the study course by consulting additional sources 11) ability to interpret drawings and identify possible inconsistencies with standards
Spezifisches Bildungsziel und erwartete Lernergebnisse (zusätzliche Informationen)	-
Art der Prüfung	The examination of the course is via a written exam that might include: a. exercises with projections and/or sections b. exercises to test the understanding of dimensioning and drafting c. questions about theoretical aspects d. exercises to calculate fits e. exercises to detect errors in the technical drawing. The assessment procedure evaluates • the capability of interpreting and representing technical systems correctly (Learning Outcomes 1, 2, 3, 5, 6), by means of exercises of type a.; • the capability of drafting and dimensioning correctly (Learning Outcomes 1, 2, 5, 6, 7, 8), by means of exercises of type b.; • the capability of reporting the fundamental notions of technical drawing in a correct and detailed way (Learning Outcomes 1, 3, 9) by means of exercises of type c.; • the understanding of fits, along with the calculation thereof,

	and indications of admitted manufacturing errors (Learning Outcomes 3, 8) by means of exercises of type d. • the capability of identifying inconsistencies in the technical drawing (Learning Outcomes 1, 2, 3, 4, 5, 6, 7, 8, 11) by means of exercises of type e. The Learning Outcome 10 will be monitored by providing supplementary material.
Bewertungskriterien	For each exercise included in the written exam, the maximum number of points achievable is indicated. The final score is the sum of points achieved in each exercise.
Pflichtliteratur	Slides and other materials provided by the lecturer during the course. All materials will be shared in the repository used (MS Teams).
Weiterführende Literatur	-
Weitere Informationen	-
Ziele für nachhaltige Entwicklung (SDGs)	Industrie, Innovation und Infrastruktur, Hochwertige Bildung