Syllabus

Descrizione corso

Titolo insegnamento	Laboratorio di Fisica applicata alla Meccanica
Codice insegnamento	42606
Titolo aggiuntivo	
Settore Scientifico-Disciplinare	NN
Lingua	Tedesco
Corso di Studio	Corso di laurea professionalizzante in Tecnologie del Legno
Altri Corsi di Studio (mutuati)	
Docenti	dr. Fahimeh Masoumi, Fahimeh.Masoumi@unibz.it https://www.unibz.it/en/faculties/engineering/academic-staff/person/46525
Assistente	
Semestre	Secondo semestre
Anno/i di corso	1
CFU	4
Ore didattica frontale	0
Ore di laboratorio	40
Ore di studio individuale	60
Ore di ricevimento previste	12
Sintesi contenuti	1. Theoretical exercises on classical physics 2. Practical exercises on Newtonian mechanics, including mechanical forces, energy, momentum, electrical phenomena and thermodynamics
Argomenti dell'insegnamento	Kinematics, Dynamics, Thermodynamics, and Electrodynamics
Parole chiave	Kinematics, Dynamics, Thermodynamics, Electrodynamics
Prerequisiti	
Insegnamenti propedeutici	

Modalità di insegnamento	Exercises, labs, and project work.
Obbligo di frequenza	Strongly recommended. A student report based on the activities and experiments performed during the laboratory sessions is the basis for the assessment of the course. The evaluation for non-attending students is based on a 30 min presentation and a 30 min oral exam.
Obiettivi formativi specifici e risultati di apprendimento attesi	This course supports the lecture 42605 Physics, and provides theoretical as well as practical exercises to develop problem solving skills related to the same topics. Knowledge and understanding 1. Knowledge and understanding of physical laws of: - Mechanics - Thermodynamics Applying knowledge and understanding 2. Ability to analyse and simple experiments on mechanics, thermodynamics. Making judgements 3. Students are expected to develop the ability to judge the plausibility of measurements. Communication skills 4. Further development of a quantitative, technical, and scientific terminology to express ideas and opinions about physical phenomena. 5. Ability to visualize and present results. Ability to learn 6. Development of an analytic attitude enabling the student to divide a problem into sub-tasks which can be solved using previously acquired knowledge.
Obiettivi formativi specifici e risultati di apprendimento attesi (ulteriori info.)	
Modalità di esame	Formative assessment: Form: In-class exercises Length /duration: Continuously as part of course-accompanying exercises ILOs assessed: 1-4, 6

	Summative assessment for attending students: Form: Report Length /duration: 5 pages ILOs assessed: 1-6 Summative assessment for non attending students: Presentation: 30 minutes; ILOs assessed: 1, 3-6 Oral form: 30 minutes; ILOs assessed: 1-4, 6 The course is evaluated on a simple pass/fail basis. No marks are given.
Criteri di valutazione	The following will be assessed: • The correctness and presentation of results, and the correct use of physical quantities and units • The correctness of the answers and arguments presented, and the terminology used. For non-attending students the presentation and oral exam must both be passed individually The course is evaluated on a simple pass/fail basis. No marks are given.
Bibliografia obbligatoria	Blackboard and blackboard of course: 42605 Physics.
Bibliografia facoltativa	Various textbooks can be used as a reference, for example: • Physik für Bachelors, Johannes Rybach, Carl Hanser Verlag, 3. Auflage, 2007 (only in German). • Mechanics and Thermodynamics, Wolfgang Demtröder, Springer International Publishing, 2017. • Electrodynamics and Optics, Wolfgang Demtröder, Springer International Publishing, 2013. • Physics for Scientists and Engineers with Modern Physics, Douglas C. Giancoli, Pearson, 4th edition, 2008.
Altre informazioni	
Obiettivi di Sviluppo Sostenibile (SDGs)	Istruzione di qualità