

Syllabus

Descrizione corso

Titolo insegnamento	Chimica analitica
Codice insegnamento	40206
Titolo aggiuntivo	
Settore Scientifico-Disciplinare	AGRI-06/B
Lingua	Tedesco
Corso di Studio	Corso di laurea in Scienze agrarie, degli alimenti e dell'ambiente montano
Altri Corsi di Studio (mutuati)	
Docenti	dott. Raphael Tiziani, Raphael.Tiziani2@unibz.it https://www.unibz.it/en/faculties/agricultural-environmental-food-sciences/academic-staff/person/38727
Assistente	
Semestre	Secondo semestre
Anno/i di corso	3
CFU	6
Ore didattica frontale	40
Ore di laboratorio	20
Ore di studio individuale	90
Ore di ricevimento previste	18
Sintesi contenuti	The aim of the course is to provide students with an adequate knowledge of general scientific principles and methods as well as specific knowledge related to the subject. The course teaches the basics of qualitative-quantitative analytical and instrumental chemistry. The student should accordingly be able to choose the correct and appropriate method depending on the problem to be solved. The student should also be able - thanks to the knowledge of analytical processes, sample preparation and the most essential analytical methods - to assess the application

	potential of modern analytical procedures.
Argomenti dell'insegnamento	The course covers the following topics: Introduction to Analytical Chemistry: Analytical Chemistry and the Analytical Process Statistics and Probability, Procedures in Analytical Chemistry Sample Preparation Fundamentals of Chromatography Liquid Chromatography (LC) Gas Chromatography (GC) Mass Spectrometry (MS) Infrared Spectroscopy (IR) Ultraviolet/Visible Electron Spectroscopy (UV/VIS) Coupling Techniques (LC/MS, GC/MS)
Parole chiave	Analytical Chemistry, Instrumental Analysis, Food Analysis
Prerequisiti	
Insegnamenti propedeutici	no
Modalità di insegnamento	The course combines lectures and practical exercises. The practical part, including laboratory activities, is explained by the lecturers and/or teaching assistants. PowerPoint presentations are made available via Teams, and additional materials are provided by the lecturer.
Obbligo di frequenza	nein
Obiettivi formativi specifici e risultati di apprendimento attesi	Knowledge and understanding of an analytical process, sample preparation and the most essential analytical methods. Application of knowledge and understanding through acquired experience during laboratory exercises and the ability to link information from practice (laboratory exercises) with theoretical knowledge.

	Judgement through analytical protocols, laboratory reports. Communication through appropriate technical language and use of specific technical terms. Learning strategies through technical information, knowledge update, selection of scientific literature.
Obiettivi formativi specifici e risultati di apprendimento attesi (ulteriori info.)	
Modalità di esame	Oral Exam
Criteri di valutazione	During the examination, the clarity of the answers, mastery of the subject-specific language and content, ability to synthesize information, judgment, and the ability to make connections to the topics covered and to independently summarize subjects will be assessed
Bibliografia obbligatoria	Slides
Bibliografia facoltativa	
Altre informazioni	
Obiettivi di Sviluppo Sostenibile (SDGs)	Buona salute, Istruzione di qualità, Lotta contro il cambiamento climatico, Energia rinnovabile e accessibile, Innovazione e infrastrutture, Acqua pulita e servizi igienico-sanitari