Syllabus

Descrizione corso

Titolo insegnamento	Difesa delle derrate alimentari
Codice insegnamento	40204
Titolo aggiuntivo	
Settore Scientifico-Disciplinare	AGRI-05/A
Lingua	Tedesco
Corso di Studio	Corso di laurea in Scienze agrarie, degli alimenti e dell'ambiente montano
Altri Corsi di Studio (mutuati)	
Docenti	prof. dr. Hannes Schuler, Hannes.Schuler@unibz.it https://www.unibz.it/en/faculties/agricultural-environmental-food-sciences/academic-staff/person/34023 prof. dr. Sanja Baric, Sanja.Baric@unibz.it https://www.unibz.it/en/faculties/agricultural-environmental-food-sciences/academic-staff/person/1049
Assistente	
Semestre	Primo semestre
Anno/i di corso	3
CFU	6
Ore didattica frontale	36
Ore di laboratorio	24
Ore di studio individuale	90
Ore di ricevimento previste	18
Sintesi contenuti	The course provides basic knowledge in the field of stored product protection. To maintain the quality and quantity of stored goods and to minimize losses, only high-quality food can be stored. For this reason, the protection of agricultural products begins in the field. Therefore, the students are first introduced to the basics of

	plant protection. The aim of the first part of the course is a better understanding of the production of healthy foods as an important prerequisite for their storage. In the second part, an overview of the most important storage pests and pathogens of grain, fruit and vegetables is given and their biology and ecology are explained. Finally, early detection techniques and methods of infestation detection will be discussed. The main focus is on preventive mechanical and physical measures to protect against diseases and pests in the warehouse, as well as on aspects of chemical and biological protection of stored products. After successfully completing the course, the students will gain a fundamental understanding of stored product protection, will be able to diagnose the most important storage pests and diseases, and will be able to assess suitable prevention and control strategies.
Argomenti dell'insegnamento	-Introduction to the importance of stored products protection -Crop cultivation and aspects related to stored products protection -Introduction to stored products protection -Biology of primary pests -Biology of secondary pests -Identification exercise for pest insects -Effects of pest infestation -Stored product protection measures -Introduction to post-harvest pathology -Post-harvest pathogens and diseases of selected crops -Mycotoxins -Introduction to integrated control of post-harvest diseases -Physical methods for controlling post-harvest diseases -Chemical methods for controlling post-harvest diseases -Biological methods for controlling post-harvest diseases -New technologies for improving host resistance -Detection and diagnosis of post-harvest pathogens and diseases (laboratory exercises)
Parole chiave	Food safety, Food storage, Pests, Pathogens
Prerequisiti	
Insegnamenti propedeutici	no
Modalità di insegnamento	Lectures, laboratory activities and excursions

Obbligo di frequenza	no
Obiettivi formativi specifici e risultati di apprendimento attesi	Knowledge and Understanding The students learn and understand basic concepts and strategies of stored product protection, in particular the prevention, detection and control of the most important pathogens and pests. Making judgements The students are able to recognize different pathogens and pests and to assess damage. Communication skills Improvement of communication and presentation skills in the context of interactive discussions and seminar presentations. Learning skills The students gain the ability to acquire and deepen knowledge independently.
Obiettivi formativi specifici e risultati di apprendimento attesi (ulteriori info.)	
Modalità di esame	The assessment of both courses consists of two parts: • Seminar presentation (30%) • Final oral exam (70%)
Criteri di valutazione	To pass the exam, a student seminar and a written exam must be assessed positively. Criteria for the assessment of the seminar presentation: correctness of the content, quality and clarity of the presentation and the ability to create a connection with related subject areas. Criteria for the assessment of the written exam: correctness and clarity of the answers.
Bibliografia obbligatoria	Power Point presentations and additional teaching materials will be made available in the Microsoft-Teams group of the course.
Bibliografia facoltativa	• Adler, Kühne, Preißel, Prozell, Schöller (2021) Vorräte richtig schützen und lagern. ISBN: 978-3-8186-1092-0 • David Hagstrum (2016). Fundamentals of Stored-Product Entomology. ISBN: 978-1-891127-50-2. • Paolo Guerra, Luciano Süss (2021). Gli infestanti nelle industrie alimentari. La gestione sulle derrate e nell'industria. Riconoscimento, modalità di prevenzione, monitoraggio e

	lotta. ISBN: ¿ 978-8886817585 • Barkai-Golan, R. (2001). Postharvest Diseases of Fruits and Vegetables: Development and Control. Elsevier. ISBN: 9780444505842 • Thompson, A. K., Prange, R. K., Bancroft, R., Puttongsiri, T. (2018). Controlled Atmosphere Storage of Fruit and Vegetables, 3rd Edition. CABI Publishing. ISBN: 9781786393739
Altre informazioni	
Obiettivi di Sviluppo Sostenibile (SDGs)	Utilizzo responsabile delle risorse, Sconfiggere la fame