Syllabus

Descrizione corso

Titolo insegnamento	Gestione sostenibile ed impatto ambientale degli allevamenti
Codice insegnamento	40451
Titolo aggiuntivo	
Settore Scientifico-Disciplinare	
Lingua	Tedesco
Corso di Studio	Corso di Laurea in Scienze alimentari ed enogastronomiche
Altri Corsi di Studio (mutuati)	
Docenti	dr. Thomas Zanon, Thomas.Zanon@unibz.it https://www.unibz.it/en/faculties/agricultural-environmental-food-sciences/academic-staff/person/42463
Assistente	
Semestre	Primo semestre
Anno/i di corso	1st
CFU	8
Ore didattica frontale	48
Ore di laboratorio	32
Ore di studio individuale	120
Ore di ricevimento previste	24
Sintesi contenuti	Introduction to Livestock Farming and its Environmental Impacts: - Livestock production in Europe (Structures of animal production in mountain areas) - Competition for space and sustainability - Livestock production systems (Calves, dairy cattle and beef cattle, Sows and fattening pigs, Laying hens and fattening poultry, Sheep and goats) - Environmental impacts of livestock: challenges and solutions for envrionmental friendly production systems

	Sustainable Livestock Farming and Breeding Measures for Quality Products: - Domestication of modern livestock species - Basic concepts of animal breeding and its relevance for food quality - Fundamentals of population and molecular genetics (basics, population parameters, breeding value, selection, selection methods, inbreeding, breeding methods) - Organisation of animal breeding incl. breeding programmes and breeding strategies
Argomenti dell'insegnamento	Introduction to Livestock Farming and its Environmental Impacts: - Livestock production in Europe (Structures of animal production in mountain areas) - Competition for space and sustainability - Livestock production systems (Calves, dairy cattle and beef cattle, Sows and fattening pigs, Laying hens and fattening poultry, Sheep and goats) - Environmental impacts of livestock: challenges and solutions for envrionmental friendly production systems Sustainable Livestock Farming and Breeding Measures for Quality Products: - Domestication of modern livestock species - Basic concepts of animal breeding and its relevance for food quality - Fundamentals of population and molecular genetics (basics, population parameters, breeding value, selection, selection methods, inbreeding, breeding methods) - Organisation of animal breeding incl. breeding programmes and breeding strategies
Parole chiave	Animal Science, Breeding, Husbandry, Welfare
Prerequisiti	
Insegnamenti propedeutici	None
Modalità di insegnamento	Lectures and exercises
Obbligo di frequenza	No
Obiettivi formativi specifici e risultati di apprendimento attesi	Knowledge and understanding: The knowledge and understanding skills mentioned above are

	acquired through participation in lectures, practical exercises, seminars, and through guided personal study and individual study as provided by the activated educational activities. The verification of the achievement of learning outcomes is mainly carried out through exams and any interim tests. The tests may be written and/or oral, and may also consist of reports and oral presentations of projects or seminars. Ability to apply knowledge and understanding: Students will be able to practically apply the knowledge they have acquired, developing the ability to solve complex problems in the food and gastronomic sector. Thanks to a wide range of practical activities, such as laboratories, internships, workshops, and seminars, they will be able to use chemical, physical, sensory, and microbiological analysis methods to evaluate the quality and safety of food and production processes. The educational activities are designed to strengthen the autonomy of judgment and the ability to make decisions in complex contexts, as well as to develop communication skills and the ability to work in multidisciplinary and international teams. At the end of the program, graduates will be able to independently apply their knowledge in professional contexts, promoting innovative and sustainable solutions for the challenges of the agri-food and gastronomic system. The achievement of the ability to apply knowledge is accomplished through critical reflection on the texts proposed for individual study, stimulated by classroom activities, the study of research and application cases presented by the professors, the performance of practical laboratory exercises, fieldwork, bibliographic research, the completion of individual and/or group projects included in the core and elective courses of the curriculum, as well as during internships and the preparation of the final exam. The assessments, carried out through written and/or oral exams, reports, and exercises, involve the completion of specific tasks in which the student demonstrates mastery of tools, methodologies, and critical autonomy. During internships, the assessment is

	conducted through the presentation of a report by the student to the supervising professor. Making judgements: Evaluate and critically analyze the quality, safety, and sustainability of production processes and food products, considering scientific, technological, economic, and cultural aspects. Students will be able to make informed decisions based on scientific data and the analysis of production contexts to ensure the excellence of the final product. Communication skills: Communicate effectively and appropriately with both technical and non-technical interlocutors, including professionals in the food and gastronomic sector, public and private institutions, and the general public. This includes the ability to adapt the communication style based on the audience, using the specific technical language of the food and gastronomic sector when necessary. Present and discuss the results of their analyses and research in both written and oral form, using technological and multimedia tools. Graduates will be able to draft technical reports, research papers, and scientific documents, as well as present their results clearly and structured, for example during conferences, seminars, or business meetings. Actively participate in discussions and group work in multidisciplinary and international contexts, demonstrating active listening, negotiation, and collaboration skills. Practical experiences and internships will provide students with the abilities to work effectively in teams and contribute to solving complex problems in the sector. Use the three languages of instruction of the course (Italian, German, and English) fluently and confidently, both for written and oral communication. Thanks to the trilingual approach of the Free University of Bozen-Bolzano, graduates will be able to face international work contexts, participate in global networks, and contribute to the development of international cooperation projects to address the challenges of the food and gastronomic sector.

	Learning skills: At the end of the degree program, graduates will have developed strong learning skills, essential for successfully continuing academic studies and entering the workforce. In particular, they will be able to: Learn autonomously and continuously, keeping up to date with scientific and technological advancements in the food and gastronomic sector. Graduates will have acquired study methods and research tools that will allow them to independently update their skills, critically interpreting new knowledge. Effectively manage the learning of complex concepts by integrating the various scientific and technical disciplines covered in the degree program, such as chemistry, biology, food technologies, economics, and law. They will be able to identify the most relevant sources, understand and apply new methodologies, and adapt to sector developments. Develop collaborative learning strategies, thanks to the experience gained through group work, internships, and laboratory activities. Graduates will be able to share their knowledge and learn from others, demonstrating adaptability and teamwork skills. Continue their studies independently in Master's degree programs (such as the LM-70 class, Food Science and Technology, currently offered at the same university) or in other related fields, using the skills and methods acquired during the bachelor's degree to tackle new learning challenges, even in high-level academic and professional contexts.
Obiettivi formativi specifici e risultati di apprendimento attesi (ulteriori info.)	
Modalità di esame	Written
Criteri di valutazione	Reproduction and critical interpretation of the content learned
Bibliografia obbligatoria	none
Bibliografia facoltativa	
Altre informazioni	
Obiettivi di Sviluppo Sostenibile (SDGs)	Sconfiggere la povertà, Sconfiggere la fame, Utilizzo sostenibile della terra, Buona occupazione e crescita economica, Utilizzo

	responsabile delle risorse, Istruzione di qualità

Modulo del corso

Titolo della parte costituente del corso	Introduzione ai metodi di allevamento ed al loro impatto ambientale
Codice insegnamento	40451A
Settore Scientifico-Disciplinare	BIOS-03/A
Lingua	Tedesco
Docenti	dr. Thomas Zanon, Thomas.Zanon@unibz.it https://www.unibz.it/en/faculties/agricultural-environmental-food-sciences/academic-staff/person/42463
Assistente	
Semestre	Primo semestre
CFU	3
Docente responsabile	
Ore didattica frontale	18
Ore di laboratorio	12
Ore di studio individuale	45
Ore di ricevimento previste	9
Sintesi contenuti	Introduction to Livestock Farming and its Environmental Impacts: - Livestock production in Europe (Structures of animal production in mountain areas) - Competition for space and sustainability - Livestock production systems (Calves, dairy cattle and beef cattle, Sows and fattening pigs, Laying hens and fattening poultry, Sheep and goats) - Environmental impacts of livestock: challenges and solutions for envrionmental friendly production systems
Argomenti dell'insegnamento	
Modalità di insegnamento	Lectures and Excursions
Bibliografia obbligatoria	None

Bibliografia facoltativa	

Modulo del corso

Titolo della parte costituente del corso	Allevamento sostenibile e selezione genetica per produzioni di qualità
Codice insegnamento	40451B
Settore Scientifico-Disciplinare	AGRI-09/C
Lingua	Tedesco
Docenti	dr. Thomas Zanon, Thomas.Zanon@unibz.it https://www.unibz.it/en/faculties/agricultural-environmental-food-sciences/academic-staff/person/42463
Assistente	
Semestre	Primo semestre
CFU	5
Docente responsabile	
Ore didattica frontale	30
Ore di laboratorio	20
Ore di studio individuale	75
Ore di ricevimento previste	15
Sintesi contenuti	Sustainable Livestock Farming and Breeding Measures for Quality Products: - Domestication of modern livestock species - Basic concepts of animal breeding and its relevance for food quality - Fundamentals of population and molecular genetics (basics, population parameters, breeding value, selection, selection methods, inbreeding, breeding methods) - Organisation of animal breeding incl. breeding programmes and breeding strategies
Argomenti dell'insegnamento	
Modalità di insegnamento	lectures, exercises

Bibliografia obbligatoria	none
Bibliografia facoltativa	