ACADEMIC YEAR 2025/2026

General information	
Name of the integrated course	**B**IOSECURITY AND SANITARY MANAGEMENT
Integrated teaching modules	Health management of farms, kennels, catteries and shelters Healthcare management of poultry and rabbit farms and wildlife
Degree course	Animal Science L38
Academic Year	III
European Credit Transfer and Accumulation System (ECTS)	13 (ECTS lessons: 11; ECTS exe/lab/tutor: 2)
Language	Italian-English (1 ECTS)
Period of teaching	I Semester: 6/10/2024-24/01/2025
Attendance	Mandatory

Teachers	**e-mail address**	**phone**
Marialaura Corrente	marialaura.corrente@uniba.it	+39 0805713590
Alessandra Cavalli	Alessandra.cavalli@uniba.it	+390805713508
Elena Circella	elena.circella@uniba.it	+39 0805713116

Headquarters	Campus of Veterinary Medicine, S.P. per Casamassima km 3, 70010 Valenzano (Ba)
Virtual rooms	Microsoft Teams. Access codes: ozxa7vs (Health management of farms, kennels, catteries and shelters); tr72snz (Healthcare management of poultry and rabbit farms and wildlife).
Tutoring (time and day)	Prof. Corrente and Cavalli: Wednesday: 11.00-13.00. Thursday 15.00-17.00 Prof Circella: Tuesday: 11.30 - 13.30; Wednesday: 15.00 - 16.30. Appointment by mail.

Syllabus	
Learning Objectives	Students will acquire essential knowledge in hygiene and biosecurity, along with an understanding of the frequency and transmission routes of infectious diseases in animals, including zoonoses, and the related preventive measures.
Course prerequisites	General Pathology and Pathophysiology, Parasitology, Mycology and Management of Synanthropic Animals. Basic knowledge in the field of microbiology, and knowledge of pathological processes at the cellular and tissue levels. These skills are prerequisites for the study and understanding of infectious animal diseases.

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Contents of the teaching module: Health management of farms, kennels, catteries and shelters Teachers: **Marialaura Corrente** **Alessandra Cavalli** **Lectures** **ECTS: 7** **Hours: 56**	The module concerns Health management of farms, kennels, catteries and shelters **Lectures:** Hygiene principles: Evolution of the hygiene concept throughout history. Environmental, urban and zootechnical hygiene. World Health Organisation: objectives and organisation. Organisation of the Veterinary Health System at international and national level. Animal identification systems. Definition of zoonoses and the factors that influence the emergence and transmission of infectious diseases in animals, including those transmissible to humans. infectious diseases in livestock with health and economic impact. Prophylaxis measures in veterinary medicine. Frequency of diseases (Epidemics, pandemics, endemic and sporadic diseases). Reproductive ratio; herd immunity. Diagnostic tests: sensitivity and specificity. Kennels and catteries health management. Biosafety measures. Definition of kennels, shelters, catteries and feline colonies. Infectious and contagious diseases of dogs and cats.Biosafety and management of herds.Drug resistance. Prudent use of antibiotics.Preventive measures as an alternative to antimicrobials
Contents of the teaching module: **Health Management of Poultry, Rabbit Farms And Wildlife** Teacher: **Elena Circella** **Lectures** **ECTS: 4 (1 in English language)** **Hours: 32 (8 in English language)** **Practical activities for the integrated course** **ECTS: 2 (1 ECTS of the teaching module** Health management of farms, kennels, catteries and shelters	Hygienic management of the industrial poultry hatchery. Selection of hatching eggs, main contaminant bacteria, disinfection methods for the egg surface and the content (dipping). Hygienic management of the litter and diseases related to the barn rearing system. Main sanitary issues linked to the different rearing systems used for laying hens (barns, aviaries, enriched cages). Main vaccination methods in poultry: drinking water, aerosol and spray, oculo-nasal, wing puncture, follicular, parenteral, in *ovo.* Main conditioned diseases in poultry (colibacillosis, mycoplasmosis, deep pectoral disease, sudden death syndrome, ascites syndrome, malabsorption syndrome). "All full - all empty" system application in poultry and rabbit farms. Prevention of notifiable diseases in rabbit farming: Rabbit Haemorrhagic Disease (RHD), myxomatosis. Autovaccines. Prevention of the conditioned diseases in rabbit breeding: respiratory, enteric, and reproductive syndromes. Principles of management of wildlife according to different conditions, natural landscape or wildlife rescue. Hygienic management of the litter and diseases related to the barn rearing system. Overview on the site of World Animal Health Organisation (WOAH). Use of WAHIS platform. Practical exercises using Excel. Diagnostic tests of the infectious diseases of animals. Field activities: bovine herds, kennels, catteries and shelters.

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" + 1 ECTS of the teaching module Healthcare management of poultry and rabbit farms and wildlife **Hours: 20**	During the practical activities, the basic skills expected by a technical figure in poultry and rabbit industry will be provided to the students. Using poultry and rabbit carcasses, the students will be able to know the different typologies of animals reared in poultry and rabbit industry and to recognise the organs, the possible lesions and the methods to collect samples for laboratory analyses for diagnostical purposes. Technical visit to a farm.

Biosafety rules for the attendance of practical activities.	Access to the laboratories, and to the Necropsy Room (Vinci Pavilion) will be allowed only to students wearing protective clothing (disposable coats and gloves and, when required, also footwear) and that have read the biosafety manual. Other biosafety guidelines will be provided during field activities.

Material for the personal study	
Books and bibliography	Poli, Cocilovo. "Microbiologia e Immunologia Veterinaria", II edizione, 2005, Ed. UTET. Farina -Scatozza "Trattato di Malattie Infettive degli Animali Domestici", 2006 Ed. UTET. Bottarelli, Ostanello. "Epidemiologia", 2011, edizioni Edagricole. Barbuti, Fara, Giammanco. "Igiene, Medicina Preventiva, Sanità Pubblica". 2014 EdiSES. WOAH site (www.woah.org) Books: Cerolini S., Marzoni Fecia di Cossato M., Romboli I., Schiavone A., Zamboni L.: Avicoltura e Coniglicoltura. Le Point Veterinaire Italie Ed.2008 Asdrubali G., Fioretti A.: Manuale di Patologia Aviare. Le Point Veterinaire Italie Ed. 2009. Simonetta A.M. e Dessì-Fulgheri F. Principi e tecniche di gestione faunistico-venatoria – Greentime Spa, Bologna - 1998
Additional materials	Slides of the lessons (on Microsoft teams). Lecture notes. Other additional sites will be suggested by the teachers during the Course

Work schedule			
Hours			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Individual study
325	*88*	*20*	*217*
ECTS			
13	*11*	*2*	*/*

Teaching strategy	The course will be carried out in a frontal mode. At the beginning and during the Course several tests will be administered for self-evaluation. Other interactive methods such as Kahoot! will be utilized. The teaching activities will consist of lectures the twill be enhanced with active learning methods, such as problem solving, case studies and role play, in order to implement the knowledge and increase the learning ability. The complete teaching process will be implemented with the aim of iconic, verbal and graphic communication models, taking advantage of the available teaching resources and technologies. Self-learning activities will be also realized through audiovisual materials and footages that will be uploaded on Microsoft Teams, as well as by means of self-evaluation tests elaborated by the teachers. Practical activities will be done in the University and in public and private facilities

Expected learning outcomes	
Knowledge and understanding ability	At the end of the course, the student will be able to: Acquire the essential concepts of health management and a preventive approach to understand the main infectious diseases of animals, with particular attention to zoonoses and notifiable animal diseases Acquire the basic skills concerning the correct hygienic management of poultry and rabbit farms and wildlife, and the different vaccination methods used in poultry and rabbit industry
Applied knowledge and understanding ability	At the end of the course, the student will be able to: • Apply principles of bio-security correctly • Have autonomy in the health management of farms, kennels and catteries and application of biosecurity rules; • Identify the most suitable preventive methods against pathogens responsible for diseases in poultry, rabbit farms and wildlife
Soft skills	**Autonomy of judgment** ○ Autonomy in the health management of farms, kennels and catteries ○ Autonomy in interpretation of the main diagnostic techniques and regulation for the prevention of infectious diseases ○ Ability to identify the main cornerstones for the correct hygienic management of poultry, rabbit farms and wildlife and express its opinion about these issues **Communication skills** ○ Specific communication skills with people, breeders and specialized technical consultants ○ Autonomy in the use of databases and software ○ Acquisition of scientific terminology to be able to properly relate with technicians and veterinarians

Assessment and feedback	
Methods of assessment	The exam of the integrated course “Biosafety and Health Management” allows the acquisition of 13 ECTS. The evaluation of knowledge takes place through: - during the course, a written test with several questions, to verify the knowledge of the previously learned concepts; - at the end of the course, through the final exam which will ascertain the knowledge and understanding of the topics covered and the use of a proper scientific language. The students will be admitted to the examination of Health Management of farms, kennels, catteries and shelters after the examinations of Health management of poultry, rabbit farms and wildlife. The two examinations can be performed during the same day.
Evaluation criteria	• Knowledge and understanding ○ Evaluation of the acquired knowledges • Applying knowledge and understanding ○ Evaluation of the acquired skills

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	• Autonomy of judgment
	  ○ Evaluation of the acquired autonomy related to the use of knowledges
	• Communicating knowledge and understanding
	  ○ Evaluation of the use of a proper scientific language and the quality of exposure
	• Communication skills
	  ○ Evaluation of the quality of the exposure and mastery of technical/scientific language
	• Capacities to continue learning
	  ○ Evaluation of the ability to critically use additional information.

Criteria for assessment and attribution of the final mark	The outcome of the partial examinations of "Health Management of farms, kennels, catteries and shelters" and "Health management of poultry, rabbit farms and wildlife" will contribute to the determination of the final marks of the teaching module "Biosecurity and sanitary management" The final mark is the result of a collegial evaluation of the two partial examinations, during which the student must demonstrate to have acquired critical sense with respect to the topics of the course. The final assessment, expressed in thirties, will be passed with marks equal or greater than 18 and will be made based on the correctness of the answer, the communication skills, the clarity of the presentation, the disciplinary competence, and the level of detail.
Other comments	

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