ACADEMIC YEAR 2025/2026

GENERAL INFORMATION	
Name of the course	**ANIMAL BREEDING AND MANAGEMENT**
Degree course	Animal Science L38
Academic Year	III
CFU	7 (6 CFU lectures; 1 hands on)
Language	Italian 6 CFU English 1 CFU
Academic calendar	I semester (06/10/2025 – 23/01/2026)
Attendance	Mandatory

Teacher	**e-mail address**	**phone**
Aristide Maggiolino	aristide.maggiolino@uniba.it	+390805713919

Department and address	Campus of Veterinary Medicine, S.P. 62 to Casamassima km 3, 70010 Valenzano (BA)
Virtual headquarters	Microsoft Teams platform if necessary (Teams code: **3qyhkz3**)
Tutoring (time and day)	The teacher receives personally by agreement or via e-mail and Teams any day, except for institutional commitments.

Syllabus	
Learning Objectives	The subject, within the Degree Course provides the student with knowledge and skills relating to animal sciences, with particular reference to the breeding technologies of the various livestock categories, to the knowledge of the on-farm biosafety techniques aimed at reducing the occurrence of diffusive diseases, to know the fundamentals of herd medicine and production medicine
Course prerequisites	The prerequisite of the "Zootecnia I" exam is required. The student must know the veterinary anatomy, physiology and endocrinology of the farm animals, particularly, digestive, reproductive, galactopoietic and body growth systems and functions. The student must know the basic principles of breeding and evaluation of morphological and functional evaluation of farm animals
Contents	Dairy cattle (2 CFU): management of reproduction. Colostrum, milk replacers, natural suckling. Calf and heifer management. Breeding techniques for lactating, transition, dry off and close-up cows. Functional hoof trimming. Influence of farm management on productive and reproductive parameters. Stables, equipment and milking parlours. Technical characteristics of Automatic milking systems. Sensors and software applied for animal welfare and management. Beef cattle and buffaloes (1 CFU): Meat production bovine categories: veal calf, baby beef, barley beef, beef: breeding techniques, performances, meat quality. Cow-veal and heifer-veal line. Buffalo: buffalo calf management, heifer and heifer management, lactation management. Heat synchronization and induction. Production of milk and meat. Principles of Farm Hygiene: water, food, animal transport, hygiene of livestock facilities. Waste management. Bovine hoof and udder hygiene. Sheep and goats (1 CFU): management of reproduction. Colostrum, milk replacers and natural suckling. Feeding of lambs and kids, weaning. Breeding techniques for lambs and ewe lambs. Breeding techniques for dry and lactating

	ewes and does. Sheepfolds and milking parlors. Management of pasture and feed integration of pasture. Breeding techniques to produce meat: suckling lamb, kid, heavy lamb, mutton. Pigs (1 CFU): systems of pig farming and their structural and functional organization. reproduction management. Colostrum management, litters fostering suckling and weaning of piglets. Breeding techniques for young boars and gilts. Fattening techniques and commercial categories of pigs. Pig farm structures and equipment. Innovative management models: pig flow farming. Equids (1 CFU): management of reproduction. From birth to weaning of the foal. Horse breeding techniques for meat production. Horse and donkey breeding techniques for milk production. Training and breeding techniques for sport horses (trot, gallop, show jumping, dressage, American riding, endurance). Techniques of functional trimming and shoeing. Equids facilities.
Practical activities **CFU: 1** **Hours: 10**	In-field training (1 CFU): these activities will be carried out in the second half of the course. Each lasts a whole day, and they will be planned according to farms availability - Training in a bovine farm - Training in a sheep / goat farm -Training in a pig farm
Biosafety rules for the attendance of practical activities.	To access the farm facilities, it is necessary to wear protective clothing (disposable latex gowns and gloves and, where applicable, disposable footwear) and to have read the biosafety manual.
Books and bibliography	- BITTANTE G., ANDRIGHETTO L., RAMANZIN M.: Tecniche di produzione animale. Liviana Ed., Torino, - MONETTI P.G.: Allevamento dei suini e dei bovini. Giraldi Ed., Perugia 2001 - PARIGI BINI R., SOMEDA DE MARCO A.: Zootecnica Speciale dei Bovini. Produzione della carne. Patton Ed., Bologna, 1989 - SUCCI G., HOFFMANN I.: La vacca da latte. Città Studi Ed., Milano, 1993 - SUCCI G.: Zootecnia speciale. Città Studi Ed., Milano, 1995 - Lewis L.D. (1998) Alimentazione e allevamento del cavallo. F. Valfrè Ed., EMSI
Additional materials	The books are recommended for further study and integration. Given the compulsory attendance, the lecture notes/minutes and the material provided by the lecturer during the course will be of fundamental importance

Work schedule			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
Hours			
175	48	10	117
ECTS			
7	6	1	
Teaching strategy	The course will be carried out in an exclusively frontal, blended or remote mode, according to the guidelines approved by the University and the competent bodies.		
Expected learning outcomes			

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Knowledge and understanding on:	The student must be able to: o Know the various breeding techniques for each species and category of farm animal o Know the production standards and the effects on animal welfare o Know the critical points of each type of farming system and the related corrective actions o Know the markers of technopathy
Applying knowledge and understanding on:	At the end of the course, the student must be able to have: ○ Ability in assessing the management quality in the different farming systems ○ Ability in recommending improvement actions to the farm management, also indicating methods, times and expected results The student must: ○ Understand the ethical and legal responsibilities of the veterinarian in farms; ○ Obtain an accurate and relevant history of the farm, of the herd and of their environment. ○ Assess the physical condition, welfare and nutritional status of a group of animals and advise the client on principles of husbandry and feeding. ○ Apply principles of bio-security correctly. Advise on, and implement, preventive and eradication programmes appropriate to the species and in line with accepted animal health, welfare and public health standards.
Soft skills	• *Making informed judgments and choices* ○ Ability to collect information directly from the farm, from manwork and from the data available at farm level to assess the management quality ○ Ability to analyze farm outputs to identify corrective / improvement actions • *Communicating knowledge and understanding* ○ Specific communication skills both with breeders and with specialized technical consultants • *Capacities to continue learning* ○ Ability to find technical information through bibliographic research or through contacts with public and private bodies

Assessment and feedback	
Methods of assessment	The examination will be oral. During the exam, 4 oral questions will be asked, one on bovine or buffalo breeding for milk, one on bovine / buffalo breeding for meat or on sheep or goat breeding, one on pig breeding and one on horse breeding. The questions will NOT be of a didactic type, but they will tend to mimic practical cases from which the student has to demonstrate that he recognizes the correlation of the effect described in the question with the farming technology.
Evaluation criteria	• *Knowledge and understanding* ○ Know the theoretical foundations relating to the management of the different farming systems • *Applying knowledge and understanding* ○ Ability in evaluating the quality of farm management in the various farming systems • *Autonomy of judgment* ○ Being able to formulate a personal judgment based on the company's data and information, combined with an operational plan for business improvement

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	• *Communication skills*
	  ○ Knowing how to use specific technical terminology appropriately
	• *Capacities to continue learning*
	  ○ Demonstrate knowledge of the available sources to find data and information useful in evaluating the farm management.

Criteria for assessment and attribution of the final mark	*The final grade is awarded out of thirty. The exam oral and it is passed when the grade is greater than or equal to 18*.
Additional information	

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