ACADEMIC YEAR 2025/2026

General information	
Name of the integrated course	**TECHNICAL ACTIVITIES IN VETERINARY FACILITIES**
Integrated teaching modules	**Patient management in veterinary medicine** **Applied Cytology and Histopathology**
Degree course	Animal Sciences (L38)
Academic Year	III
European Credit Transfer and Accumulation System (ECTS)	5 (ECTS lessons: 3; ECTS exe/lab/tutor: 2)
Language	Italian
Period of teaching	II semester (From 2/03/2026 to 19/06/2026)
Attendance	Mandatory

Teacher	**e-mail address**	**phone**
Antonella Tinelli	antonella.tinelli@uniba.it	+39 080 5443934
Maria Alfonsa Cavalera	mariaalfonsa.cavalera@uniba.it	+39 080 5713857
Floriana Gernone	floriana.gernone@uniba.it	+39 080 5713456

Headquarters	Campus of Veterinary Medicine, S.P. per Casamassima km 3, 70010 Valenzano (Ba)
Virtual rooms	Microsoft Teams (access code will be provided in class)
Tutoring (time and day)	By appointment via email, either in person or via Microsoft Teams.

Syllabus	
Learning *objectives*	As part of the integrated course in Technical Activities in Veterinary Facilities, the Patient Management module aims to provide students with the theoretical and practical knowledge necessary to understand the professional areas of expertise of the veterinary technician, both within clinical facilities and in veterinary diagnostic laboratories. Specifically, the module aims to develop knowledge and operational skills useful for assisting the veterinarian during clinical management procedures of veterinary patients, as well as, in the laboratory setting, for operating accurately, safely, and with awareness in performing routine diagnostic techniques. The Applied Cytology and Histopathology module aims to provide foundational knowledge on the most common techniques used in cytological and histopathological diagnostics, including the collection, preservation, and preparation of samples. The course supports and complements students' understanding of general pathology.
Course prerequisites	Students should have acquired basic knowledge of Anatomy, Physiology, General Pathology, and Pathophysiology.

Contents of the teaching **Module: Patient management in veterinary medicine** **Teachers: M.A. Cavalera, F. Gernone** **ECTS: 3 (2 lectures + 1 practical)** **Hours of lectures: 16**	Topics: • Occupational hazards; medical terminology • Preparation of workspaces: cleaning and disinfection • Biosafety in veterinary diagnostic laboratories • Laboratory testing and quality assurance: pre-analytical, analytical, post-analytical errors • Medical history and clinical examination • Physical restraint and animal handling • Measurement of clinical parameters • Instrumental diagnostics: ECG, ultrasound, radiography • Wound treatment • Fluid therapy • Collection and handling of biological samples • Basics of hematology and clinical chemistry • Serum protein electrophoresis • Introduction to immunology and serology • Urinalysis • Fecal examination
Module: Applied Cytology and Histopathology **Teacher: A. Tinelli** **ECTS: 2 (1 lecture + 1 practical)** **Hours of lectures: 8**	Topics: • Cytology: indications, purposes, and limitations • Sampling techniques for cytological exams • Slide preparation and staining techniques • Interpretation and artifact recognition • Histopathology: indications, purposes, and limitations • Tissue sampling and histological preparation • Staining techniques • Criteria for interpretation of histological slides
Practical Activities and Exercises **ECTS: 2 – 20 hours total** • **10 hours: Patient management in veterinary medicine** • **10 hours: Applied cytology and histopathology**	Activities will be held in the outpatient clinics, laboratories of the Clinical Medicine section, and the Skills Lab of the Veterinary Medicine Campus. Students will practice: • Animal restraint procedures • Physical examinations and measurement of clinical parameters • Basic veterinary diagnostic techniques Additional practical training will take place in the pathology laboratories and necropsy room, focusing on: • Organ/tissue sampling from cadavers • Sample submission and processing for histology • Slide preparation and staining techniques for cytological/histopathological diagnostics Students will be divided into groups of 6 for all practical sessions conducted in laboratory settings.

Biosafety rules for the attendance of practical activities.	Access to laboratories, animal facilities, and clinical areas is restricted to students wearing proper PPE (lab coats, disposable gloves, and shoe covers when required). Students must review the biosafety manual in compliance with the Department of Veterinary Medicine regulations (DD n. 731/2021 and relevant safety documents).

Material for the personal study	

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Strada prov.le 62 per Casamassima, km. 3,00
70010 Valenzano (Bari) - Italy
Tel. (+39) 080 5443944-41-46
didattica.veterinaria@uniba.it

Books and bibliography	**Patient management in veterinary medicine** • *Principi e Pratica di Tecnologia Veterinaria* – Paul W. Prat, Delfino Editore • *Tecniche infermieristiche* – Rueca & Tommasini Degna, Poletto, 2007 **Applied Cytology and Histopathology**: • Chapter 18, *Patologia Sistematica Veterinaria* – Marcato, Edagricole • *Citologia del cane e del gatto* – Poli & Ciorba, Poletto Editore • *Citologia diagnostica del cane e del gatto* – Raskin & Meyer, Edra
Additional materials	Additional materials will be provided in class or uploaded to the Microsoft Teams platform

Work schedule			
Hours			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Individual study
125	*24*	*20*	*81*
ECTS			
5	*3*	*2*	*/*

Teaching strategy	
	The course will combine traditional lectures using PowerPoint and explanatory videos with innovative methods such as role-playing to reinforce knowledge and skills. Practical sessions will emphasize learning-by-doing and realistic case simulations to foster critical thinking and autonomy.

Expected learning outcomes	
Knowledge and understanding ability	At the end of the course, students will be able to demonstrate that they have learned and understood: • Understand the organizational structure of veterinary units • Use basic instruments in clinical and laboratory settings • Understand physiological and pathological processes • Apply biosafety regulations and good laboratory practices • Recognize and follow SOPs in diagnostic labs • Describe main veterinary laboratory techniques
Applied knowledge and understanding ability	At the end of the course, students will be able to • apply standard protocols for the containment and monitoring of animals, in compliance with animal welfare and occupational safety regulations • Utilize the block of theoretical knowledge acquired from nursing, behavioral biological sciences, and clinical concepts to recognize the needs of the assisted animal • recognize the main clinical and behavioral signs of interest in patient management, effectively collaborating with the veterinarian in gathering clinical information • perform basic technical procedures, under veterinary supervision, such as: monitoring vital signs and managing hospitalizations • manage clinical documentation and personal data of patients, also through veterinary management software, ensuring accuracy and confidentiality. • apply safety and biosecurity regulations effectively (e.g. correctly use personal protective equipment, follow safe disposal procedures for materials, manage

	emergency situations, apply sanitation protocols, prevent zoonoses, and dispose of medical waste) • set up the work environment with all the necessary equipment for clinical and laboratory activities (environmental disinfectants, glassware) • apply the Standard Operating Procedures required by veterinary diagnostic laboratories • correctly perform the collection and management of biological samples according to standardized procedures, ensuring traceability and compliance with laboratory operating requirements • carry out the main veterinary diagnostic techniques in accordance with protocols and good laboratory practices.
Soft skills	**Autonomy of judgment** • Select appropriate procedures from admission to discharge as well as in laboratory settings • Independently or collaboratively identify the correct diagnostic path and sample preparation methods • develop a responsible and critical attitude towards laboratory work safety in accordance with current regulations on biosafety **Communication skills** • Clearly communicate information and procedures • Interact professionally with colleagues and pet owners **Capacity of self-learning** • Study and deepen topics independently • Transfer theoretical knowledge to practical contexts • Continuously update professional competencies

Assessment and feedback	
Methods of assessment	Oral examination covering the content of both modules. Students may take the two parts in the same or different exam sessions. Credits are awarded only after passing both modules and official registration in the university system (Esse3).

Evaluation criteria	• *Knowledge and understanding ability:*
	  ○ Demonstrate a solid grasp of the theoretical content covered in both modules that comprise the integrated course.
	• *Applied knowledge and understanding ability:*
	  ○ Demonstrate understanding of clinical principles necessary to identify the needs of veterinary patients.
	  ○ Show proficiency in assisting the veterinarian throughout the various phases of instrumental diagnostic procedures, including animal restraint, sample collection, preparation of diagnostic materials, and setup and maintenance of the relevant equipment.
	  ○ Demonstrate the ability to prepare the working environment and correctly use clinical and laboratory tools (e.g., disinfectants, glassware, consumables).
	  ○ Effectively apply laboratory safety and biosafety protocols, including the correct use of personal protective equipment (PPE), proper disposal of hazardous materials, and response to emergency situations.
	  ○ Apply the Standard Operating Procedures (SOPs) in use within veterinary diagnostic laboratories.
	• *Autonomy of judgment*

	○ Analytical and critical skills regarding studied ○ Comprehensive assessment of common clinical and laboratory scenarios • *Communication skills* ○ Clear expression and accurate use of scientific terminology • *Capacity to continue learning* ○ Ability to integrate interdisciplinary concepts
Criteria for assessment and attribution of the final mark	The student is expected to demonstrate a comprehensive understanding of the topics covered during the course. The final grade, expressed on a scale of thirty, will be determined by the joint evaluation of the two individual module assessments. A minimum score of 18/30 is required to pass the exam. The following criteria will be considered during the evaluation process: • Relevance and accuracy of the response to the exam questions • Clarity of expression and communication • Ability to establish interdisciplinary connections Honors (*cum laude*) may be awarded to students who achieve the highest score, at the discretion of the examination committee.
Other comments	Attendance of at least 50% of lectures and 50% of practical sessions is mandatory to sit the final exam

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