Program Description

Master of Science in "Veterinary Medicine"

1. Why a Master in "Veterinary Medicine"

The MSc in "Veterinary Medicine" is designed to support Albania's alignment with the **EU acquis** and **EAEVE competencies**, in the context of EU integration (2030) and the implementation of the Animal Health Law (from 2027).
It addresses critical capacity gaps identified in veterinary services, particularly in **surveillance, enforcement, traceability, and laboratory support**, by strengthening the workforce at postgraduate level.
The programme focuses on key European priorities, including **AMR, Veterinary Public Health, and Food Safety/Quality**, within a **One Health framework**.
Through a **competency-based, practice-oriented approach,** it prepares graduates with skills in **risk assessment, official controls, biosecurity, animal welfare, and monitoring programmes,** ensuring they are ready for immediate professional implementation.

2. Competences of the graduates

Graduates of the Master in "Veterinary Medicine" will achieve the Day One Competences (D1Cs) as defined by EAEVE (SOP 2023, 38 competencies), ensuring they are fully prepared for professional practice within the European veterinary framework. They will be able to:

- Diagnose, prevent, and control animal diseases, including zoonoses, using evidence-based approaches
- Apply epidemiology, surveillance, and risk assessment in disease monitoring and control programmes.
- Perform and interpret laboratory diagnostics and support veterinary decision-making
- Implement biosecurity measures, animal welfare standards, and herd health management
- Conduct official controls in food safety and Veterinary Public Health
- Address antimicrobial resistance (AMR) through responsible use and monitoring
- Communicate effectively with farmers, stakeholders, and authorities
- Work within a One Health framework, integrating animal, human, and environmental health
- Demonstrate ethical, legal, and professional responsibility
- Engage in lifelong learning, research, and critical thinking

These competences are achieved through a learning outcomes–based curriculum, where teaching activities and assessments are fully aligned to ensure graduates are practice-ready from day one.

3. Potential employer and/or career path

Graduates of the Master in "Veterinary Medicine" will have diverse career opportunities across clinical, public, and scientific sectors:

1. Clinical and Industry Practice
   - Private veterinary practice (clinical services)
   - Farm and production animal health, advisory and consultancy roles
2. Public Sector and Regulatory Services
   - Official Veterinarian (inspection, certification, disease control)
   - Veterinary Services and Competent Authorities (e.g., AKVMB)
   - Veterinary Public Health and One Health roles (AMR, food safety, surveillance)
3. Laboratory and Diagnostic Services
   - National reference laboratories and diagnostic institutions (e.g., ISUV)
4. Academic and Research Development
   - Research positions in projects, institutes, and universities
   - Postgraduate pathways (PhD and advanced specialization)

This broad career spectrum ensures graduates are equipped for both national needs and European labour market integration.

4. Alumnus and their experiences

Graduates and professionals connected to similar programmes have successfully built international careers across academia, research, and industry, serving as strong role models for future students. Notable examples include:

- Prof. Qendrim Zebel – University of Veterinary Medicine, Vienna (Austria)
- Prof. Burim Ametaj – University of Alberta (Canada)
- Prof. Shaniko Shini – University of Queensland (Australia)
- Prof. Bledar Bisha – University of Wyoming (USA)
- Dr. Albert Licollari – Nucro-Technics (Canada)

Their career paths demonstrate the programme's potential to develop professionals who contribute at international level in veterinary science, food safety, and animal health. Their experiences highlight:

- Strong academic and research progression
- Engagement in global veterinary and food safety challenges
- Opportunities in industry, innovation, and applied science

These alumni serve as inspiration and proof of the programme's capacity to produce highly competitive graduates in the global veterinary field.

5. The interdisciplinary of the program.

The Veterinary Medicine program is inherently interdisciplinary, integrating knowledge, methods, and perspectives from multiple scientific and professional domains to prepare graduates for complex roles in animal health, public health, and food systems.

At its core, the program combines **biomedical sciences** (anatomy, physiology, pathology, microbiology, immunology) with **clinical sciences** (internal medicine, surgery, reproduction, diagnostic imaging), enabling students to understand disease processes and apply evidence-based diagnosis and treatment. This is further complemented by **epidemiology and population medicine**, where students analyze disease patterns, risk factors, and control strategies at herd, regional, and global levels.

A strong connection exists with **agricultural and animal production sciences**, including nutrition, breeding, welfare, and farm management, ensuring that veterinary interventions are aligned with productivity, sustainability, and animal well-being. The program also integrates **public health and food safety disciplines**, emphasizing zoonoses, antimicrobial resistance, hygiene, and the "One Health" approach, linking animal, human, and environmental health.

In addition, the curriculum draws on **laboratory and diagnostic sciences** (molecular biology, serology, microbiological techniques), as well as **data science and biostatistics**, supporting evidence-based decision-making and research competence. Increasingly, elements of **environmental science, biosecurity, and policy/regulatory frameworks** are incorporated to address transboundary diseases, climate change impacts, and international standards (e.g., WOAH).

Finally, the program includes **professional and transversal skills,** such as communication, ethics, economics, and decision-making, preparing graduates to work effectively with farmers, institutions, and multidisciplinary teams.

Overall, this interdisciplinary structure ensures that veterinary graduates are not only clinicians, but also contributors to public health, food systems, research, and policy, capable of addressing complex challenges in a rapidly evolving global context.

- Integrates biomedical sciences (anatomy, physiology, pathology, microbiology, immunology) with clinical sciences (medicine, surgery, reproduction, diagnostics) for evidence-based practice.
- Includes epidemiology and population medicine for disease analysis at herd and population levels.
- Links with animal production sciences (nutrition, breeding, welfare, farm management).
- Incorporates public health and food safety, emphasizing zoonoses, AMR, and One Health.

- Uses laboratory sciences and biostatistics to support diagnostics and research.
- Addresses biosecurity, environment, and regulations (e.g., World Organisation for Animal Health).
- Develops professional skills (communication, ethics, teamwork).

Outcome: Graduates are prepared for roles in clinical practice, public health, and sustainable food systems.

6. Which Bachelor Program are suggested.

The Veterinary Medicine program does not operate alternative entry pathways; however, it allows controlled transfer of students from equivalent veterinary programs, based on rigorous evaluation of Learning Outcomes, ECTS credits, and clinical competencies, ensuring full alignment with EAEVE Day One Competences